

# **Environmental Noise Control Study**

## **Proposed Residential Development**

2655 Queensview Drive  
Ottawa, Ontario

Prepared for Westridge Pacific

Report PG7541-1 – Dated July 18, 2025

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## 1.0 Introduction

Paterson Group (Paterson) was commissioned by Westridge Pacific to conduct an environmental noise control study for the proposed residential development to be located at 2655 Queensview Drive in the City of Ottawa.

The objectives of the current study are to:

- ☐ Determine the primary noise sources impacting the site and compare the projected sound levels to guidelines set out by the Ministry of Environment and Conservation and Parks (MOECP) and the City of Ottawa.
- ☐ Review the projected noise levels and offer recommendations regarding warning classes, construction materials or alternative sound barriers.

The following report has been prepared specifically and solely for the aforementioned project, which is described herein. It contains our findings and includes acoustical recommendations pertaining to the design and construction of the subject residential development as they are understood at the time of writing this report.

This study has been conducted according to the City of Ottawa document - Engineering Noise Control Guidelines (ENCG), dated January 2016, and the Ontario Ministry of the Environment Guideline NPC-300.

## 2.0 Proposed Development

It is understood that the proposed residential development will consist of two six-storey residential buildings denoted as Building A and Building B. Associated at-grade roadways, parking areas, landscaped areas and outdoor living areas are also anticipated as a part of the proposed residential development.

### 3.0 Methodology and Noise Assessment Criteria

The City of Ottawa outlines three (3) sources of environmental noise that must be analyzed separately:

- ☐ Surface Transportation Noise
- ☐ Stationary Noise
  - New noise-sensitive development applications (noise receptors) in proximity to existing or approved stationary sources of noise and
  - New stationary sources of noise (noise generating) in proximity to existing or approved noise-sensitive developments.
- ☐ Aircraft noise

#### Surface Transportation Noise

The City of Ottawa's Official Plan, in addition to the ENCG, dictate that the influence area must contain any of the following conditions to classify as a surface transportation noise source for a subject site:

- ☐ Within 100 m of the right-of-way of an existing or proposed arterial, collector or major collector road; a light rail transit corridor; bus rapid transit, or transit priority corridor.
- ☐ Within 250 m of the right-of-way for an existing or proposed highway or secondary rail line.
- ☐ Within 300 m from the right of way of a proposed or existing rail corridor or a secondary main railway line.
- ☐ Within 500 m of an existing 400 series provincial highway, freeway or principal main railway line.

The NPC-300 outlines the limitations of the stationary and environmental noise levels in relation to the location of the receptors. These can be found below in the following tables:

| <b>Table 1 - Sound Level Limits for Outdoor Living Areas</b>                                   |                                               |
|------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Time Period</b>                                                                             | <b>Required <math>L_{eq(16)}</math> (dBA)</b> |
| 16 hours, 7:00-23:00                                                                           | 55                                            |
| I. Standards taken from Table 2.2a; Sound Level Limit for Outdoor Living Areas - Road and Rail |                                               |

| <b>Table 2 - Sound Level Limits for Indoor Living Areas</b>                                                 |                    |                                           |             |
|-------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------|-------------|
| <b>Type of Space</b>                                                                                        | <b>Time Period</b> | <b>Required <math>L_{eq}</math> (dBA)</b> |             |
|                                                                                                             |                    | <b>Road</b>                               | <b>Rail</b> |
| Living/Dining, den areas of residences, hospitals, nursing homes, schools, daycare centres, etc             | 7:00-23:00         | 45                                        | 40          |
| Theatres, places of worship, libraries, individual or semi-private offices, conference rooms, reading rooms | 23:00-7:00         | 45                                        | 40          |
| Sleeping quarters                                                                                           | 7:00-23:00         | 45                                        | 40          |
|                                                                                                             | 23:00-7:00         | 40                                        | 35          |
| I. Standards taken from Table 2.2b; Sound Level Limit for Indoor Living Areas - Road and Rail               |                    |                                           |             |

It is noted in ENCG that the limits outlined in Table 2 are for the sound levels on the interior of the glass pane. The ENCG further goes on to state that the limit for the exterior of the pane of glass will be 55 dBA.

If the sound level limits are exceeded at the windowpanes for the indoor living areas, the following Warning Clauses may be referenced:

**Table 3 - Warning Clauses for Sound Level Exceedances**

| Warning Clause        | Description                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Warning Clause 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."                                                                                                                          |
| Warning Clause Type B | "Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic (rail traffic) (air traffic) may, on occasions, interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."                      |
| Warning Clause 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." |
| Warning Clause 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."                                                                                                                                         |
| I.                    | Clauses taken from section C8 Warning Clauses; Environmental Noise Guidelines - NPC-300                                                                                                                                                                                                                                                                                                                                      |

## Stationary Noise

Stationary noise sources include sources or facilities that are fixed or mobile and can cause a combination of sound and vibration levels emitted beyond the property line. These sources may include commercial air conditioner units, generators and fans. Facilities that may contribute to stationary noise may include car washes, snow disposal sites, transit stations and manufacturing facilities.

The proposed residential development is not in proximity to any existing or approved stationary sources of noise. Therefore, a stationary noise analysis will not be required with respect to off-site stationary noise sources impacting the proposed residential development.

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## **Aircraft/Airport Noise**

The subject site is not located within the Airport Vicinity Development Zone. Therefore, this project will not require an aircraft/airport noise analysis. No warning clauses regarding aircraft or airport noise will be required.

## 4.0 Analysis

### Surface Transportation Noise

The subject site is currently occupied with an existing commercial development with Moncton Road to the north, commercial development to the east and west, and the Queensway Highway 417 and a future OLRT Line to the south. The Queensway Highway 417 was identified within the 500 m radius.

Based on the new City of Ottawa Official Plan, Schedule F, the Queensway Highway 417 is considered a principal 400 series highway. Other roads within the 100 m radius of the proposed residential development are not classified as either arterial, collector, or major collector roads and, therefore, are not included in this study.

All noise sources are presented in Drawing PG7541-1-Site Geometry, located in Appendix 1.

The City of Ottawa provides noise levels from road traffic, taking into consideration the right-of-way width and the implied roadway class. These values represent the maximum allowable capacity of the proposed roadways. The parameters to be used for sound-level predictions can be found below.

| <b>Table 4 - Traffic and Road Parameters</b>                                    |                        |                       |                            |                          |                       |                      |
|---------------------------------------------------------------------------------|------------------------|-----------------------|----------------------------|--------------------------|-----------------------|----------------------|
| <b>Road</b>                                                                     | <b>Implied Roadway</b> | <b>AADT (Veh/day)</b> | <b>Posted Speed (km/h)</b> | <b>Day/Night Split %</b> | <b>Medium Truck %</b> | <b>Heavy Truck %</b> |
| Queensway HWY 417 East Bound                                                    | Queensway              | 73,332                | 100                        | 92/8                     | 7                     | 5                    |
| Queensway HWY 417 West Bound                                                    | Queensway              | 73,332                | 100                        | 92/8                     | 7                     | 5                    |
| Data obtained from the City of Ottawa document ENCG or City of Ottawa Officials |                        |                       |                            |                          |                       |                      |

Four (4) levels of reception points were selected for this analysis. The following elevations were selected from the heights provided on the survey plan for the subject building.

**Table 5 - Elevation of Reception Points**

| <b>Floor Number</b> | <b>Elevation at the Centre of Window / Ground Surface (m)</b> | <b>Floor Use</b>    | <b>Daytime/Nighttime Analysis</b> |
|---------------------|---------------------------------------------------------------|---------------------|-----------------------------------|
| Ground Surface      | 1.5                                                           | Outdoor Living Area | Daytime                           |
| Ground Floor        | 1.5                                                           | Living Area/Bedroom | Daytime/Nighttime                 |
| Third Floor         | 7.5                                                           | Living Area/Bedroom | Daytime/Nighttime                 |
| Sixth Floor         | 16.5                                                          | Living Area/Bedroom | Daytime/Nighttime                 |

For this analysis, a reception point was taken at the centre of each floor, on the ground floor, the third floor and the sixth floor. Additionally, the receptor point for the outdoor living area was taken 1.5 m above the ground surface. Reception points are detailed in Drawing PG7541-2 Receptor Location Plans presented in Appendix 1.

All horizontal distances have been measured from the reception point to the edge of the right-of-way. The roadways were analyzed where they intersected the 500 m buffer zone, which is reflected in the local angles described in Paterson Drawings PG7541-3A to 4E-Site Geometry in Appendix 1.

Table 8 - Summary of Reception Points and Geometry, located in Appendix 1, provides a summary of the points of reception and their geometry concerning the noise sources. The analysis is completed so that no effects of sound reflection off the building facade are considered, as stipulated by the ENG C. It should be noted that one receptor is assigned to the side of the building affected by noise. There is one noise source: the Queensway Highway 417. The anticipated noise at each receptor represents the worst-case scenario for the residential building.

The analysis was completed using STAMSON version 5.04, a computer program which uses the road and rail traffic noise prediction methods using ORNAMENT (Ontario Road Noise Analysis Method for Environment and Transportation) and STEAM (Sound from Trains Environment Analysis Method), publications from the Ontario Ministry of Environment and Energy.

The subject site is relatively at grade with the surrounding roadways, with a geodetic elevation of approximately 68 m within the 500 m radius.

## 5.0 Results

### Surface Transportation

The primary descriptors are the 16-hour daytime and the 8-hour nighttime equivalent sound levels,  $L_{eq(16)}$  and the  $L_{eq(8)}$  for City roads.

The proposed traffic noise levels were analyzed at all reception points. The results of the STAMSON software are located in Appendix 2, and the summary of the results is noted in Table 6 below.

| <b>Table 6 – Proposed Noise Levels</b> |                                             |                  |                                                            |                                                             |
|----------------------------------------|---------------------------------------------|------------------|------------------------------------------------------------|-------------------------------------------------------------|
| <b>Reception Point</b>                 | <b>Description</b>                          | <b>OLA (dBA)</b> | <b>Daytime at Facade<br/><math>L_{eq(16)}</math> (dBA)</b> | <b>Nighttime at Facade<br/><math>L_{eq(8)}</math> (dBA)</b> |
| REC 1-1                                | Building A - Northern Elevation - 1st Floor |                  | 53.13                                                      | 45.53                                                       |
| REC 1-3                                | Building A - Northern Elevation - 3rd Floor |                  | 55.64                                                      | 48.04                                                       |
| REC 1-6                                | Building A - Northern Elevation - 6th Floor |                  | 59.40                                                      | 51.80                                                       |
| REC 2-1                                | Building A - Western Elevation - 1st Floor  |                  | 59.45                                                      | 51.85                                                       |
| REC 2-3                                | Building A - Western Elevation - 3rd Floor  |                  | 62.16                                                      | 54.09                                                       |
| REC 2-6                                | Building A - Western Elevation - 6th Floor  |                  | 65.07                                                      | 57.47                                                       |
| REC 3-1                                | Building A - Southern Elevation - 1st Floor |                  | 64.02                                                      | 55.93                                                       |
| REC 3-3                                | Building A - Southern Elevation - 3rd Floor |                  | 66.17                                                      | 58.09                                                       |
| REC 3-6                                | Building A - Southern Elevation - 6th Floor |                  | 68.96                                                      | 61.36                                                       |
| REC 4-1                                | Building A - Eastern Elevation - 1st Floor  |                  | 60.11                                                      | 52.51                                                       |
| REC 4-3                                | Building A - Eastern Elevation - 3rd Floor  |                  | 62.29                                                      | 54.70                                                       |
| REC 4-6                                | Building A - Eastern Elevation - 6th Floor  |                  | 65.59                                                      | 57.99                                                       |
| REC 5-1                                | Building B - Western Elevation - 1st Floor  |                  | 60.23                                                      | 52.63                                                       |
| REC 5-3                                | Building B - Western Elevation - 3rd Floor  |                  | 62.40                                                      | 54.80                                                       |
| REC 5-6                                | Building B - Western Elevation - 6th Floor  |                  | 65.68                                                      | 58.08                                                       |
| REC 6-1                                | Building B - Southern Elevation - 1st Floor |                  | 63.60                                                      | 56.01                                                       |
| REC 6-3                                | Building B - Southern Elevation - 3rd Floor |                  | 65.76                                                      | 58.16                                                       |
| REC 6-6                                | Building B - Southern Elevation - 6th Floor |                  | 69.00                                                      | 61.41                                                       |

| <b>Reception Point</b> | <b>Description</b>                          | <b>OLA (dBA)</b> | <b>Daytime at Facade<br/>L<sub>eq(16)</sub><br/>(dBA)</b> | <b>Nighttime at Facade<br/>L<sub>eq(8)</sub><br/>(dBA)</b> |
|------------------------|---------------------------------------------|------------------|-----------------------------------------------------------|------------------------------------------------------------|
| REC 7-1                | Building B - Eastern Elevation - 1st Floor  |                  | 59.21                                                     | 51.61                                                      |
| REC 7-3                | Building B - Eastern Elevation - 3rd Floor  |                  | 61.46                                                     | 53.86                                                      |
| REC 7-6                | Building B - Eastern Elevation - 6th Floor  |                  | 64.86                                                     | 57.26                                                      |
| REC 8-1                | Building B - Northern Elevation - 1st Floor |                  | 58.81                                                     | 51.21                                                      |
| REC 8-3                | Building B - Northern Elevation - 3rd Floor |                  | 61.13                                                     | 53.53                                                      |
| REC 8-6                | Building B - Northern Elevation - 6th Floor |                  | 64.61                                                     | 57.02                                                      |
| REC 9                  | Building A – Outdoor Living Area            | 43.70            | -                                                         | -                                                          |
| REC 10                 | Building B – Outdoor Living Area            | 55.33            | -                                                         | -                                                          |

## 6.0 Discussion and Recommendations

### 6.1 Outdoor Living Areas

Two outdoor living areas were analyzed as part of the current study (REC 9 and REC 10), located centrally between the proposed residential buildings. The results of the STAMSON modelling indicate that the  $L_{eq(16)}$  from all sources ranged from 43.70 dBA to 55.33 dBA. The noise levels for REC 9 were below the threshold specified in Table 1; therefore, no additional noise attenuation features will be required. The noise levels for REC 10 were slightly above the threshold as specified in Table 1; however, as it is only a 0.33 dBA exceedance and there is another outdoor living space that is within the threshold, no additional noise attenuation features will be required.

### 6.2 Indoor Living Areas and Ventilation

The results of the STAMSON modelling indicate that the  $L_{eq(16)}$  ranges between 53.13 dBA and 69.00 dBA. Some of the values calculated exceed the limit of 55 dBA and 65 dBA as specified by the ENCG, and therefore, Warning Clause Warning Clause Type D will be required to be stated on any deeds of sale. The applicable warning clauses are summarized in Table 7. Below.

| <b>Table 7 - Summary of Warning Clauses – Indoor Living Areas</b> |                  |              |                                  |                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------|------------------|--------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Building</b>                                                   | <b>Elevation</b> | <b>Floor</b> | <b>Applicable Warning Clause</b> | <b>Additional Considerations</b>                                                                                                                                                                                                                                                     |
| <b>A</b>                                                          | All              | All          | Warning Clause 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"  |
| <b>B</b>                                                          | All              | All          | Warning Clause 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." |

Various receptors exceed the 65 dBA threshold for both Building A and Building B. Therefore, an analysis of the building materials will be required. However, at this time, the building materials and exterior wall construction details have not been finalized. Therefore, a review of the proposed building materials will need to be completed once the building materials have been finalized.

### **Proposed Construction Specifications**

It is understood that typical window and wall details are proposed for the residential buildings. The effectiveness of the noise insulation can be expressed as the Acoustical Insulation Factor (AIF), calculated as follows:

$$AIF = L_{eq(16)(Exterior)} - L_{eq(16)(Interior)} + 10\log_{10}(N) + 2dBA$$

Where:

$L_{eq(16)(Exterior)}$ : Calculated value at the windowpane

$L_{eq(16)(Interior)}$ : Equals 45 dBA

$N$ : Number of components in the room

No floor plans or detailed design drawings were provided for this portion of the review. A conservative approach is to assume that there are 2 components per room. Therefore, the AIF would need to be at least 29 dBA.

A conversion from AIF to a Standard Transmission Class (STC) rating will require knowledge of room dimensions in addition to the wall and window dimensions. However, a conservative approach would be to increase the AIF factor by 3. **Therefore, provided the building materials of either the windows and/or exterior walls have an STC rating of 32 or higher, this would be a sufficient noise attenuation device for both Building A and Building B.**

## 7.0 Summary of Findings

The subject site is located at 2655 Queensview Drive in the City of Ottawa. It is understood that the proposed residential development will consist of two six-storey residential buildings, denoted as Building A and Building B. The associated analysis identified one surface transportation noise source: Queensway Highway 417 (east and west bound)

Several reception points were selected for the analysis, consisting of panes of glass reception points on the first level, third level, sixth level and outdoor living areas.

Some of the sound levels for the proposed development exceeded the 55 dBA and 65 dBA thresholds as specified by ENCG and will require Warning Clause Type D.

A review of building materials was completed as part of this analysis for all elevations exceeding 65 dBA for both Building A and Building B. The building materials of either the windows and/or the exterior walls will require an STC rating of 32 or higher. Reference can be made to Appendix 3 for Building Material Industry Standards.

All warning clauses are reiterated below and are to be included on all Offers of Purchase and Sale:

**Warning Clause 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"

Two outdoor living areas were analyzed as part of the current study (REC 9 and REC 10). The results of the STAMSON modelling indicate that the  $L_{eq(16)}$  from all sources were 43.70 dBA to 55.33 dBA. The noise levels calculated at REC 9 are within acceptable limits, therefore, no noise attenuation is needed. REC 10 slightly exceeds the limit by 0.33 dBA, however, as another outdoor living area meets the threshold, no additional noise attenuation is required.

## 8.0 Statement of Limitations

The recommendations made in this report are in accordance with our present understanding of the project. Our recommendations should be reviewed when the project drawings and specifications are complete.

The present report applies only to the project described in this document. Use of this report for purposes other than those described herein or by person(s) other than Westridge Pacific or their agent(s) is not authorized without review by this firm for the applicability of our recommendations to the altered use of the report.

**Paterson Group Inc.**



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**Report Distribution:**

- ☐ Westridge Pacific
- ☐ Paterson Group

# APPENDIX 1

## TABLE 8 – SUMMARY OF RECEPTION POINTS AND GEOMETRY DRAWING PG7541-1-SITE PLAN

### DRAWING PG7541-2-RECEPTOR LOCATION PLAN

### DRAWING PG7541-3- SITE GEOMETRY (BUILDING A)

DRAWING PG7541-3A-SITE GEOMETRY (REC 1-1, REC 1-3 & REC 1-6)

DRAWING PG7541-3B-SITE GEOMETRY (REC 2-1, REC 2-3 & REC 2-6)

DRAWING PG7541-3C-SITE GEOMETRY (REC 3-1, REC 3-3 & REC 3-6)

DRAWING PG7541-3D-SITE GEOMETRY (REC 4-1, REC 4-3 & REC 4-6)

### DRAWING PG7541-3E-SITE GEOMETRY (REC 9)

### DRAWING PG7541-4- SITE GEOMETRY (BUILDING B)

DRAWING PG7541-4A-SITE GEOMETRY (REC 5-1, REC 5-3 & REC 5-6)

DRAWING PG7541-4B-SITE GEOMETRY (REC 6-1, REC 6-3 & REC 6-6)

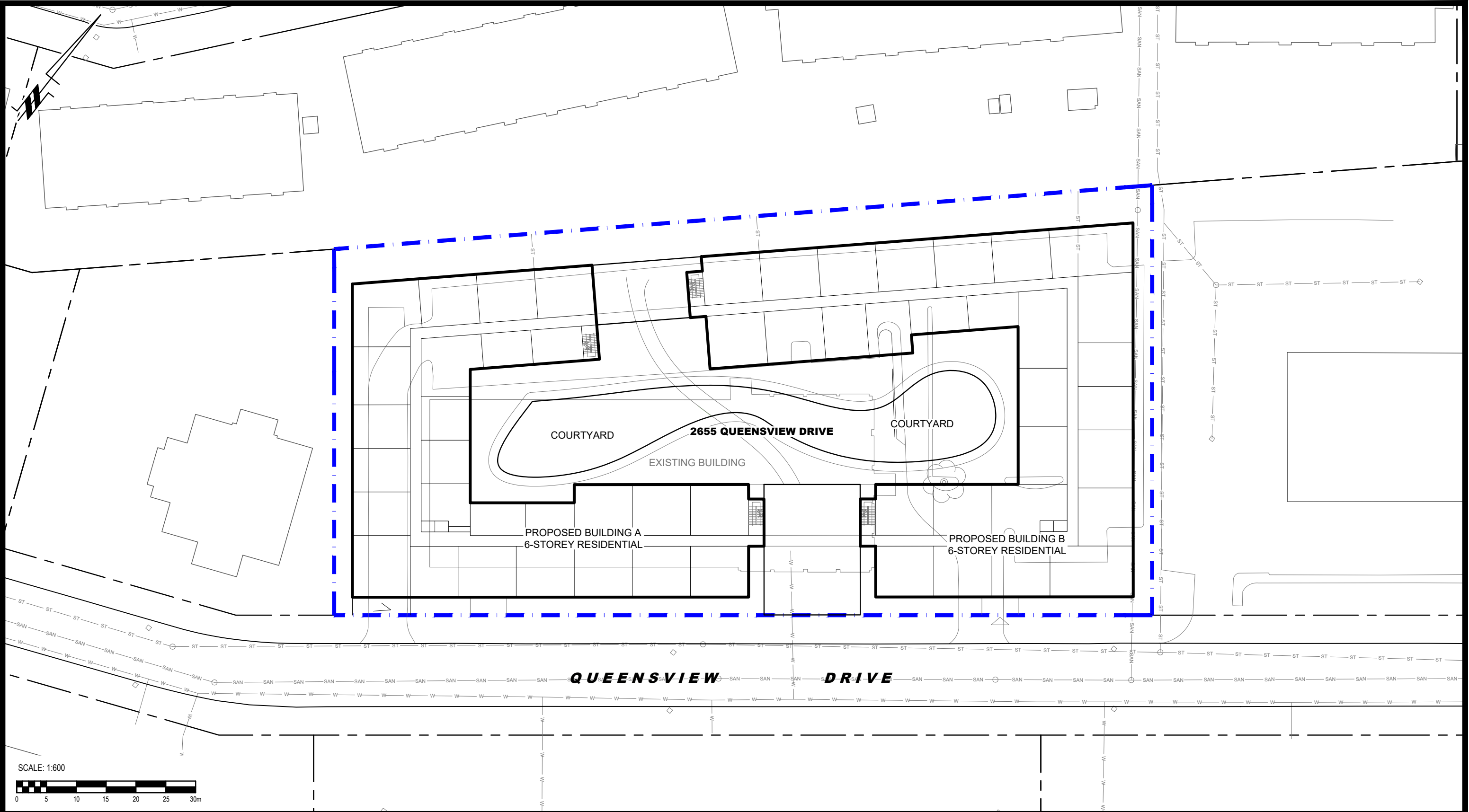
DRAWING PG7541-4C-SITE GEOMETRY (REC 7-1, REC 7-3 & REC 7-6)

DRAWING PG7541-4D-SITE GEOMETRY (REC 8-1, REC 8-3 & REC 8-6)

### DRAWING PG7541-4E- SITE GEOMETRY (REC 10)

| Table 8 - Summary of Reception Points and Geometry |                                             |                     |                       |                        |          |        |             |                |         |                |              |                        |          |        |             |                |         |                |              |
|----------------------------------------------------|---------------------------------------------|---------------------|-----------------------|------------------------|----------|--------|-------------|----------------|---------|----------------|--------------|------------------------|----------|--------|-------------|----------------|---------|----------------|--------------|
| 2655 Queensview Drive                              |                                             |                     |                       |                        |          |        |             |                |         |                |              |                        |          |        |             |                |         |                |              |
| Point of Reception                                 | Location                                    | Total Leq Day (dBA) | Total Leq Night (dBA) | Queensway HWY 417 East |          |        |             |                |         |                |              | Queensway HWY 417 West |          |        |             |                |         |                |              |
|                                                    |                                             |                     |                       | Horizontal             | Vertical | Total  | Local Angle | Number of      | Density | Barrier Height | Barrier      | Horizontal             | Vertical | Total  | Local Angle | Number of      | Density | Barrier Height | Barrier      |
|                                                    |                                             |                     |                       | (m)                    | (m)      | (m)    | (degree)    | Rows of Houses | (%)     | (m)            | Distance (m) | (m)                    | (m)      | (m)    | (degree)    | Rows of Houses | (%)     | (m)            | Distance (m) |
| REC 1-1                                            | Building A - Northern Elevation - 1st Floor | 53.13               | 45.53                 | 247                    | 1.5      | 247    | -60, -40    | 1              | 20      | n/a            | n/a          | 224                    | 1.5      | 224.01 | -62, -40    | 1              | 20      | n/a            | n/a          |
| REC 1-3                                            | Building A - Northern Elevation - 3rd Floor | 55.64               | 48.04                 | 247                    | 7.5      | 247.11 | -60, -40    | 1              | 20      | n/a            | n/a          | 224                    | 7.5      | 224.13 | -62, -40    | 1              | 20      | n/a            | n/a          |
| REC 1-6                                            | Building A - Northern Elevation - 6th Floor | 59.40               | 51.80                 | 247                    | 16.5     | 247.55 | -60, -40    | 1              | 20      | n/a            | n/a          | 224                    | 16.5     | 224.61 | -62, -40    | 1              | 20      | n/a            | n/a          |
| REC 2-1                                            | Building A - Western Elevation - 1st Floor  | 59.45               | 51.85                 | 222                    | 1.5      | 222.01 | 0, 65       | 1              | 20      | n/a            | n/a          | 203                    | 1.5      | 203.01 | 0, 67       | 1              | 20      | n/a            | n/a          |
| REC 2-3                                            | Building A - Western Elevation - 3rd Floor  | 62.16               | 54.09                 | 222                    | 7.5      | 222.13 | 0, 65       | 1              | 20      | n/a            | n/a          | 203                    | 7.5      | 203.14 | 0, 67       | 1              | 20      | n/a            | n/a          |
| REC 2-6                                            | Building A - Western Elevation - 6th Floor  | 65.07               | 57.47                 | 222                    | 16.5     | 222.61 | 0, 65       | 1              | 20      | n/a            | n/a          | 203                    | 16.5     | 203.67 | 0, 67       | 1              | 20      | n/a            | n/a          |
| REC 3-1                                            | Building A - Southern Elevation - 1st Floor | 64.02               | 55.93                 | 196                    | 1.5      | 196.01 | -67, 70     | 1              | 20      | n/a            | n/a          | 177                    | 1.5      | 177.01 | -70, 72     | 1              | 20      | n/a            | n/a          |
| REC 3-3                                            | Building A - Southern Elevation - 3rd Floor | 66.17               | 58.09                 | 196                    | 7.5      | 196.14 | -67, 70     | 1              | 20      | n/a            | n/a          | 177                    | 7.5      | 177.16 | -70, 72     | 1              | 20      | n/a            | n/a          |
| REC 3-6                                            | Building A - Southern Elevation - 6th Floor | 68.96               | 61.36                 | 196                    | 16.5     | 196.69 | -67, 70     | 1              | 20      | n/a            | n/a          | 177                    | 16.5     | 177.77 | -70, 72     | 1              | 20      | n/a            | n/a          |
| REC 4-1                                            | Building A - Eastern Elevation - 1st Floor  | 60.11               | 52.51                 | 204                    | 1.5      | 204.01 | -66, 0      | 1              | 20      | n/a            | n/a          | 185                    | 1.5      | 185.01 | -66, 0      | 1              | 20      | n/a            | n/a          |
| REC 4-3                                            | Building A - Eastern Elevation - 3rd Floor  | 62.29               | 54.70                 | 204                    | 7.5      | 204.14 | -66, 0      | 1              | 20      | n/a            | n/a          | 185                    | 7.5      | 185.15 | -66, 0      | 1              | 20      | n/a            | n/a          |
| REC 4-6                                            | Building A - Eastern Elevation - 6th Floor  | 65.59               | 57.99                 | 204                    | 16.5     | 204.67 | -66, 0      | 1              | 20      | n/a            | n/a          | 185                    | 16.5     | 185.73 | -66, 0      | 1              | 20      | n/a            | n/a          |
| REC 5-1                                            | Building B - Western Elevation - 1st Floor  | 60.23               | 52.63                 | 202                    | 1.5      | 202.01 | 0, 66       | 1              | 20      | n/a            | n/a          | 182                    | 1.5      | 182.01 | 0, 69       | 1              | 20      | n/a            | n/a          |
| REC 5-3                                            | Building B - Western Elevation - 3rd Floor  | 62.40               | 54.80                 | 202                    | 7.5      | 202.14 | 0, 66       | 1              | 20      | n/a            | n/a          | 182                    | 7.5      | 182.15 | 0, 69       | 1              | 20      | n/a            | n/a          |
| REC 5-6                                            | Building B - Western Elevation - 6th Floor  | 65.68               | 58.08                 | 202                    | 16.5     | 202.67 | 0, 66       | 1              | 20      | n/a            | n/a          | 182                    | 16.5     | 182.75 | 0, 69       | 1              | 20      | n/a            | n/a          |
| REC 6-1                                            | Building B - Southern Elevation - 1st Floor | 63.60               | 56.01                 | 193                    | 1.5      | 193.01 | -68, 68     | 1              | 20      | n/a            | n/a          | 175                    | 1.5      | 175.01 | -70, 71     | 1              | 20      | n/a            | n/a          |
| REC 6-3                                            | Building B - Southern Elevation - 3rd Floor | 65.76               | 58.16                 | 193                    | 7.5      | 193.15 | -68, 68     | 1              | 20      | n/a            | n/a          | 175                    | 7.5      | 175.16 | -70, 71     | 1              | 20      | n/a            | n/a          |
| REC 6-6                                            | Building B - Southern Elevation - 6th Floor | 69.00               | 61.41                 | 193                    | 16.5     | 193.7  | -68, 68     | 1              | 20      | n/a            | n/a          | 175                    | 16.5     | 175.78 | -70, 71     | 1              | 20      | n/a            | n/a          |

| Table 8 - Summary of Reception Points and Geometry |                                             |                     |                       |                        |          |        |             |                |         |                |              |                        |          |        |             |                |         |                |              |
|----------------------------------------------------|---------------------------------------------|---------------------|-----------------------|------------------------|----------|--------|-------------|----------------|---------|----------------|--------------|------------------------|----------|--------|-------------|----------------|---------|----------------|--------------|
| 2655 Queensview Drive                              |                                             |                     |                       |                        |          |        |             |                |         |                |              |                        |          |        |             |                |         |                |              |
| Point of Reception                                 | Location                                    | Total Leq Day (dBA) | Total Leq Night (dBA) | Queensway HWY 417 East |          |        |             |                |         |                |              | Queensway HWY 417 West |          |        |             |                |         |                |              |
|                                                    |                                             |                     |                       | Horizontal             | Vertical | Total  | Local Angle | Number of      | Density | Barrier Height | Barrier      | Horizontal             | Vertical | Total  | Local Angle | Number of      | Density | Barrier Height | Barrier      |
|                                                    |                                             |                     |                       | (m)                    | (m)      | (m)    | (degree)    | Rows of Houses | (%)     | (m)            | Distance (m) | (m)                    | (m)      | (m)    | (degree)    | Rows of Houses | (%)     | (m)            | Distance (m) |
| REC 7-1                                            | Building B - Eastern Elevation - 1st Floor  | 59.21               | 51.61                 | 209                    | 1.5      | 209.01 | --63, 0     | 1              | 20      | n/a            | n/a          | 226                    | 1.5      | 226    | -66, 0      | 1              | 20      | n/a            | n/a          |
| REC 7-3                                            | Building B - Eastern Elevation - 3rd Floor  | 61.46               | 53.86                 | 209                    | 7.5      | 209.13 | --63, 0     | 1              | 20      | n/a            | n/a          | 226                    | 7.5      | 226.12 | -66, 0      | 1              | 20      | n/a            | n/a          |
| REC 7-6                                            | Building B - Eastern Elevation - 6th Floor  | 64.86               | 57.26                 | 209                    | 16.5     | 209.65 | --63, 0     | 1              | 20      | n/a            | n/a          | 226                    | 16.5     | 226.6  | -66, 0      | 1              | 20      | n/a            | n/a          |
| REC 8-1                                            | Building B - Northern Elevation - 1st Floor | 58.81               | 51.21                 | 242                    | 1.5      | 242    | 0, 65       | 1              | 20      | n/a            | n/a          | 223                    | 1.5      | 223.01 | 0, 67       | 1              | 20      | n/a            | n/a          |
| REC 8-3                                            | Building B - Northern Elevation - 3rd Floor | 61.13               | 53.53                 | 242                    | 7.5      | 242.12 | 0, 65       | 1              | 20      | n/a            | n/a          | 223                    | 7.5      | 223.13 | 0, 67       | 1              | 20      | n/a            | n/a          |
| REC 8-6                                            | Building B - Northern Elevation - 6th Floor | 64.61               | 57.02                 | 242                    | 16.5     | 242.56 | 0, 65       | 1              | 20      | n/a            | n/a          | 223                    | 16.5     | 223.61 | 0, 67       | 1              | 20      | n/a            | n/a          |
| REC 9                                              | Building A - Outdoor Living Area            | 43.7                | -                     | 224                    | 1.5      | 224.01 | -62, -59    | 1              | 20      | n/a            | n/a          | 202                    | 1.5      | 202.01 | -62, -64    | 1              | 20      | n/a            | n/a          |
| REC 10                                             | Building B - Outdoor Living Area            | 55.33               | -                     | 223                    | 1.5      | 223.01 | 39, 70      | 1              | 20      | n/a            | n/a          | 201                    | 1.5      | 201.01 | 39, 72      | 1              | 20      | n/a            | n/a          |





**PATERSON  
GROUP**  
9 AURIGA DRIVE  
OTTAWA, ON  
K2E 7T9  
TEL: (613) 226-7381

| NO. | REVISIONS | DATE | INITIAL |
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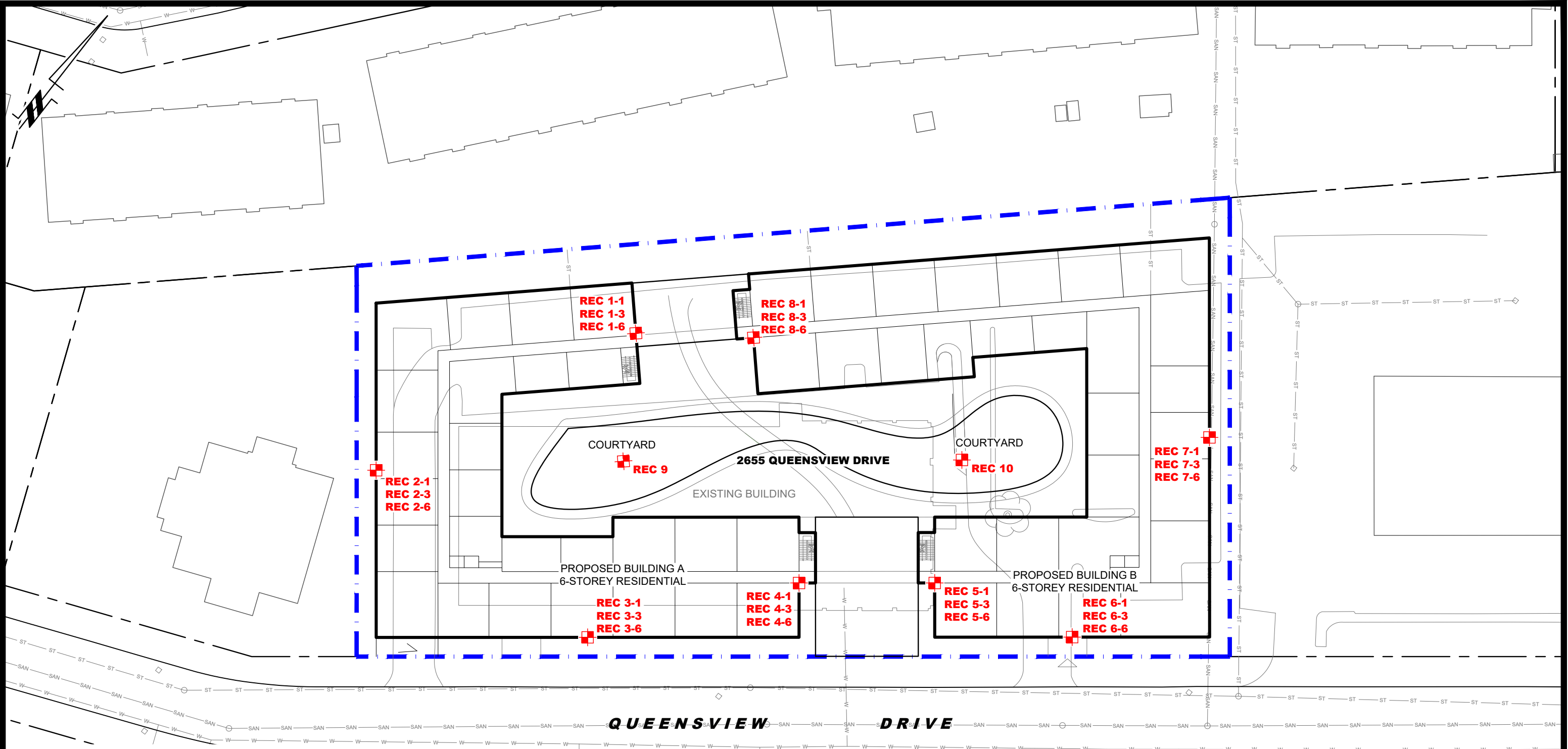
WESTRIDGE PACIFIC  
NOISE ATTENUATION STUDY  
PROPOSED RESIDENTIAL DEVELOPMENT  
2655 QUEENSVIEW DRIVE

OTTAWA,  
Title:

ONTARIO

SITE PLAN

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|--------------|-------|---------------|----------|
| Scale:       | 1:600 | Date:         | 05/2025  |
| Drawn by:    | YA    | Report No.:   | PG7541-1 |
| Checked by:  | OM    | Dwg. No.:     | PG7541-1 |
| Approved by: | SB    | Revision No.: |          |

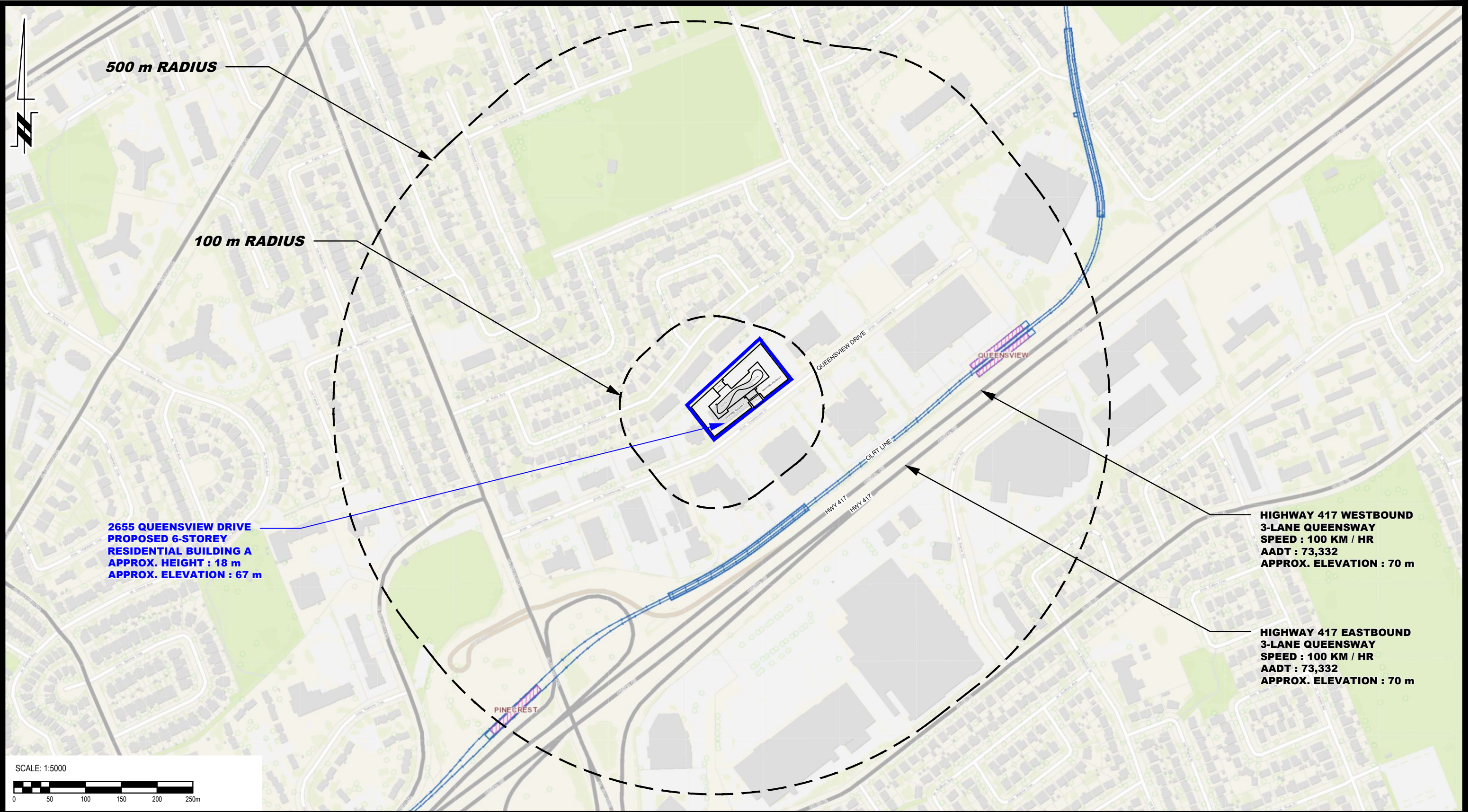


**LEGEND:**

RECEPTOR LOCATION

SCALE: 1:600

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| <div><div><div>PATERSON<br/>GROUP</div><div>9 AURIGA DRIVE<br/>OTTAWA, ON<br/>K2E 7T9<br/>TEL: (613) 226-7381</div></div></div> |     |           |      |         | OTTAWA,<br>Title: | WESTRIDGE PACIFIC<br>NOISE ATTENUATION STUDY<br>PROPOSED RESIDENTIAL DEVELOPMENT<br>2655 QUEENSVIEW DRIVE<br>ONTARIO | Scale:       | 1:600 | Date:         | 05/2025  |  |
|                                                                                                                                                                                                                    |     |           |      |         |                   |                                                                                                                      | Drawn by:    | YA    | Report No.:   | PG7541-1 |  |
|                                                                                                                                                                                                                    |     |           |      |         |                   |                                                                                                                      | Checked by:  | OM    | Dwg. No.:     | PG7541-2 |  |
|                                                                                                                                                                                                                    |     |           |      |         |                   |                                                                                                                      | Approved by: | SB    | Revision No.: |          |  |
|                                                                                                                                                                                                                    |     |           |      |         |                   |                                                                                                                      |              |       |               |          |  |
|                                                                                                                                                                                                                    | NO. | REVISIONS | DATE | INITIAL |                   |                                                                                                                      |              |       |               |          |  |



SCALE: 1:5000  
0 50 100 150 200 250m



**PATERSON  
GROUP**  
9 AURIGA DRIVE  
OTTAWA, ON  
K2E 7T9  
TEL: (613) 226-7381

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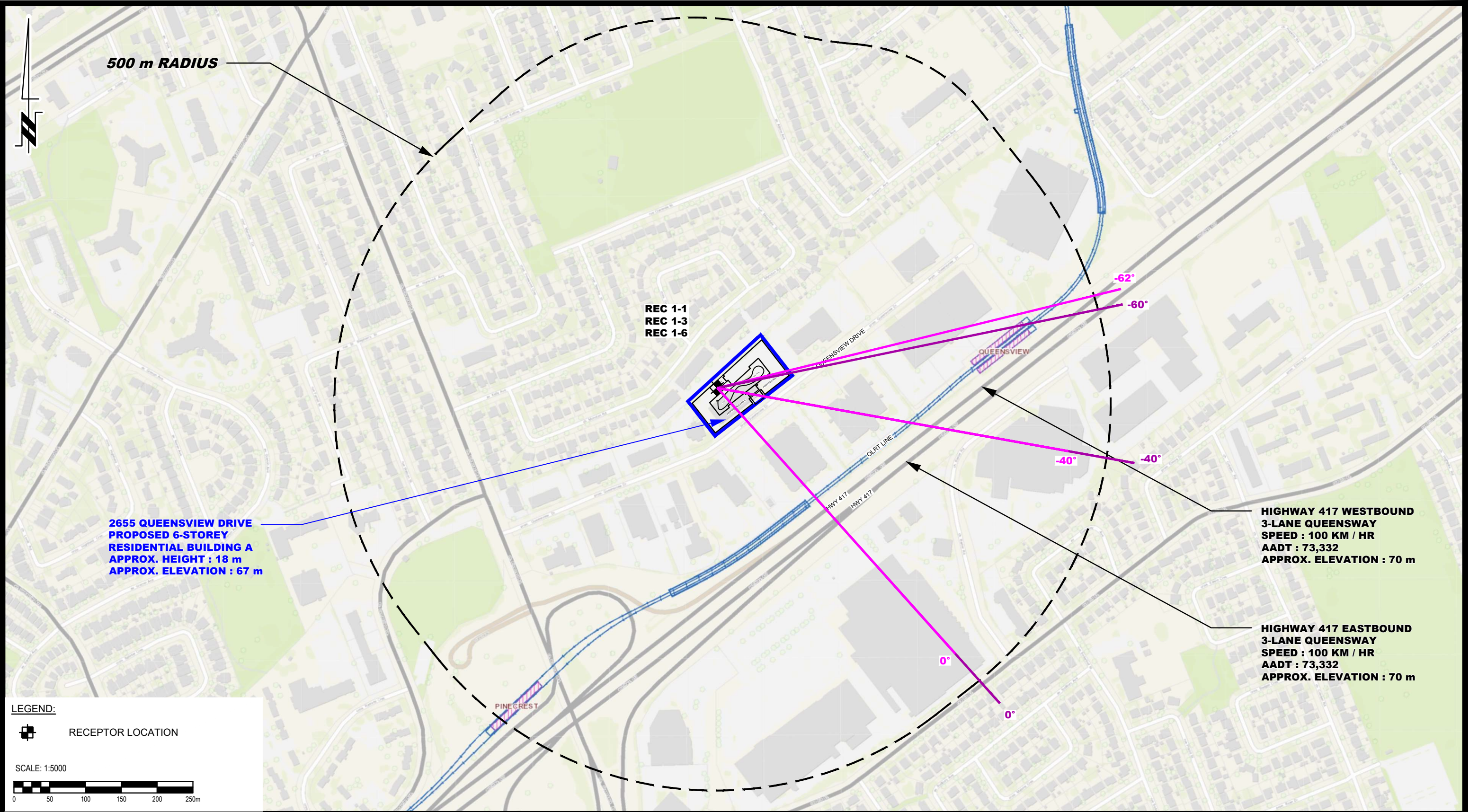
WESTRIDGE PACIFIC  
NOISE ATTENUATION STUDY  
PROPOSED RESIDENTIAL DEVELOPMENT  
2655 QUEENSVIEW DRIVE

OTTAWA,  
Title:

ONTARIO

SITE GEOMETRY - BUILDING A

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| Scale:       | 1:5000 | Date:         | 05/2025         |
| Drawn by:    | YA     | Report No.:   | PG7541-1        |
| Checked by:  | OM     | Dwg. No.:     | <b>PG7541-3</b> |
| Approved by: | SB     | Revision No.: |                 |





9 AURIGA DRIVE  
OTTAWA, ON  
K2E 7T9  
TEL: (613) 226-7381

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OTTAWA,  
Title:

**SITE GEOMETRY - REC 1-1, REC 1-3 AND REC 1-6**

ONTARIO

Scale: 1:5000

Drawn by: YA

Checked by: OM

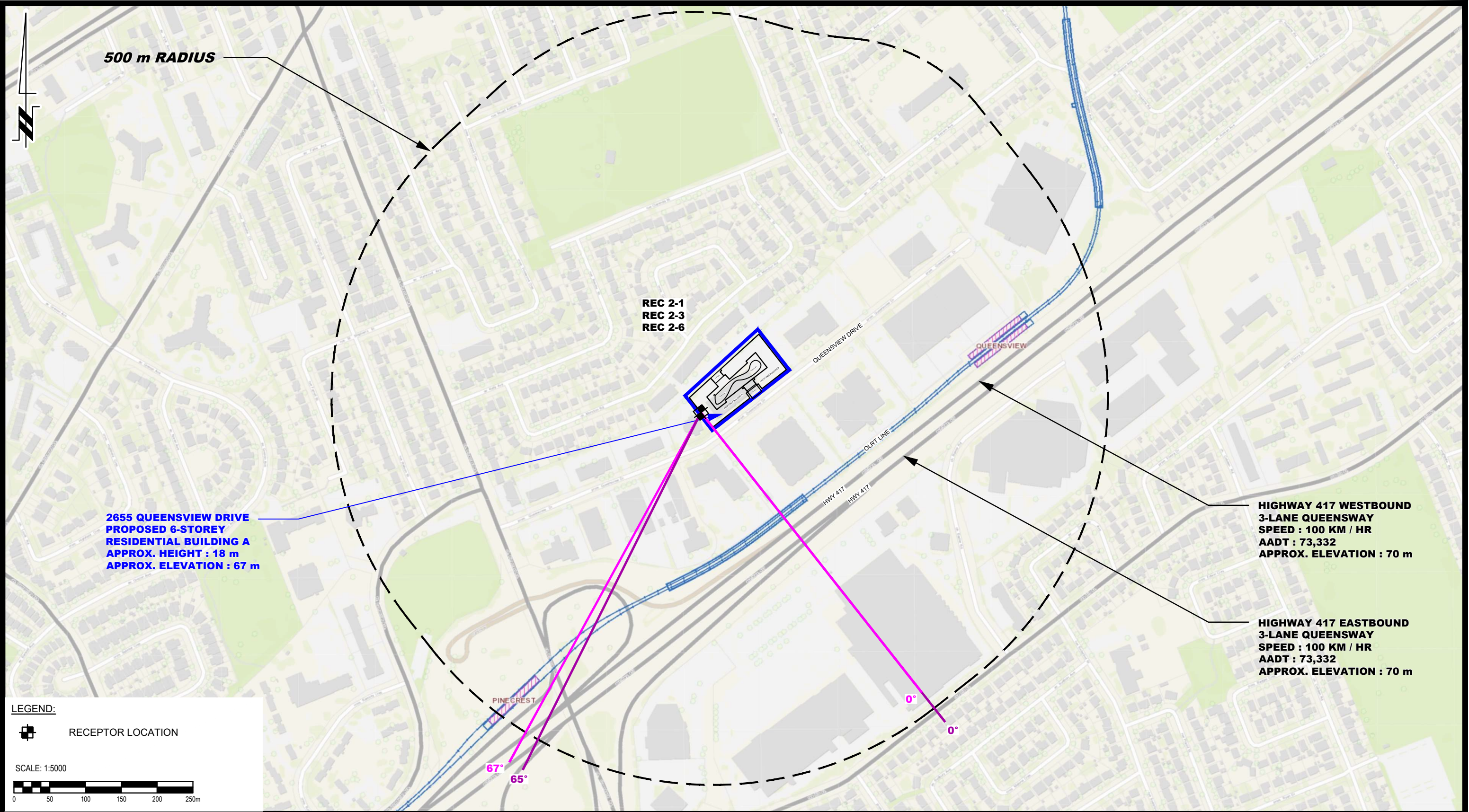
Approved by: SB

Date: 05/2025

Report No.: PG7541-1

Dwg. No.: **PG7541-3A**

Revision No.:



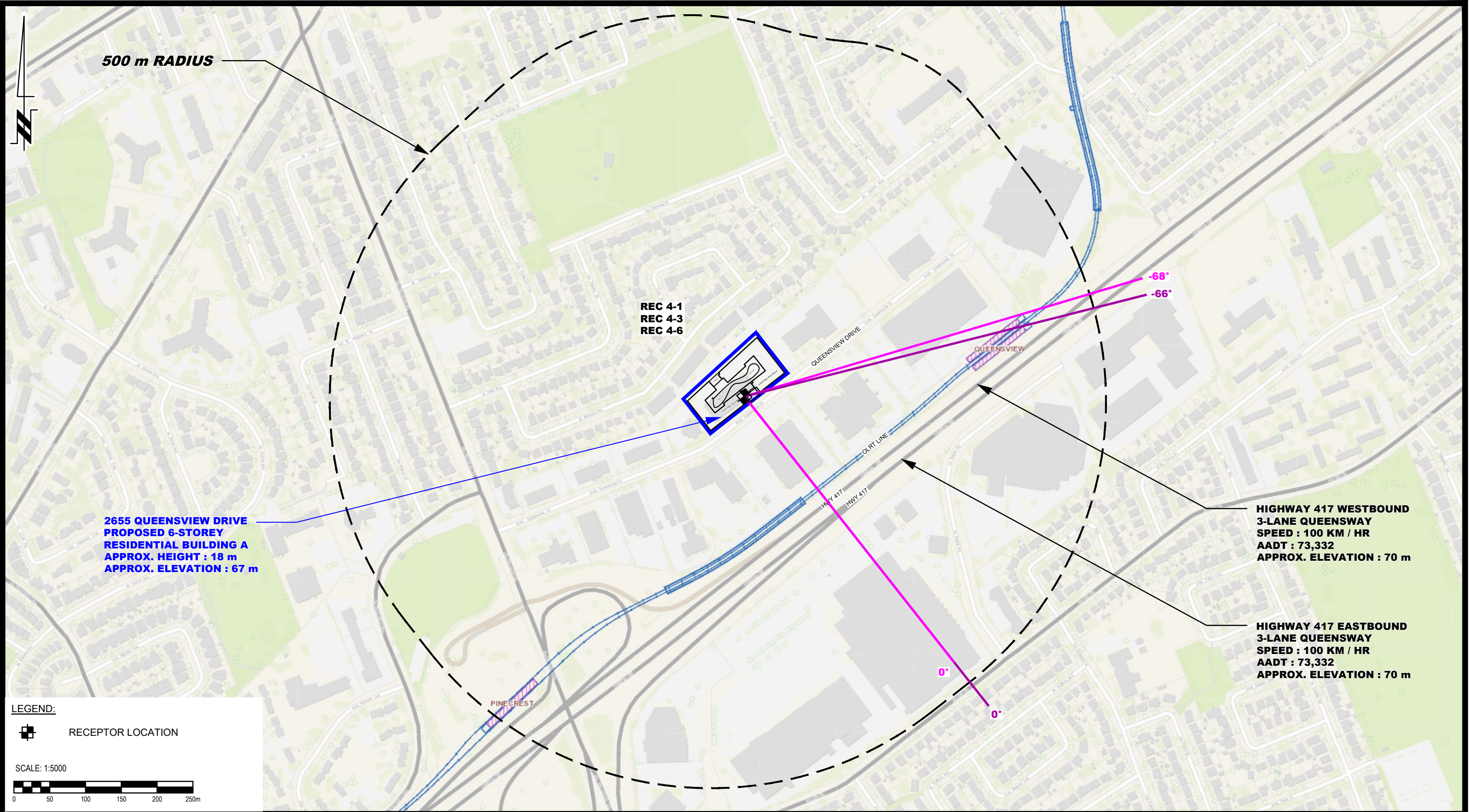
**LEGEND:**

RECEPTOR LOCATION

SCALE: 1:5000

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| <br>9 AURIGA DRIVE<br>OTTAWA, ON<br>K2E 7T9<br>TEL: (613) 226-7381 |  |  |  | WESTRIDGE PACIFIC<br>NOISE ATTENUATION STUDY<br>PROPOSED RESIDENTIAL DEVELOPMENT<br>2655 QUEENSVIEW DRIVE |           |      |         | Scale:<br>1:5000   | Date:<br>05/2025        |
|                                                                    |  |  |  | OTTAWA, ONTARIO                                                                                           |           |      |         | Drawn by:<br>YA    | Report No.:<br>PG7541-1 |
|                                                                    |  |  |  | SITE GEOMETRY - REC 2-1, REC 2-3 AND REC 2-6                                                              |           |      |         | Checked by:<br>OM  | Dwg. No.:<br>PG7541-3B  |
|                                                                    |  |  |  |                                                                                                           |           |      |         | Approved by:<br>SB | Revision No.:           |
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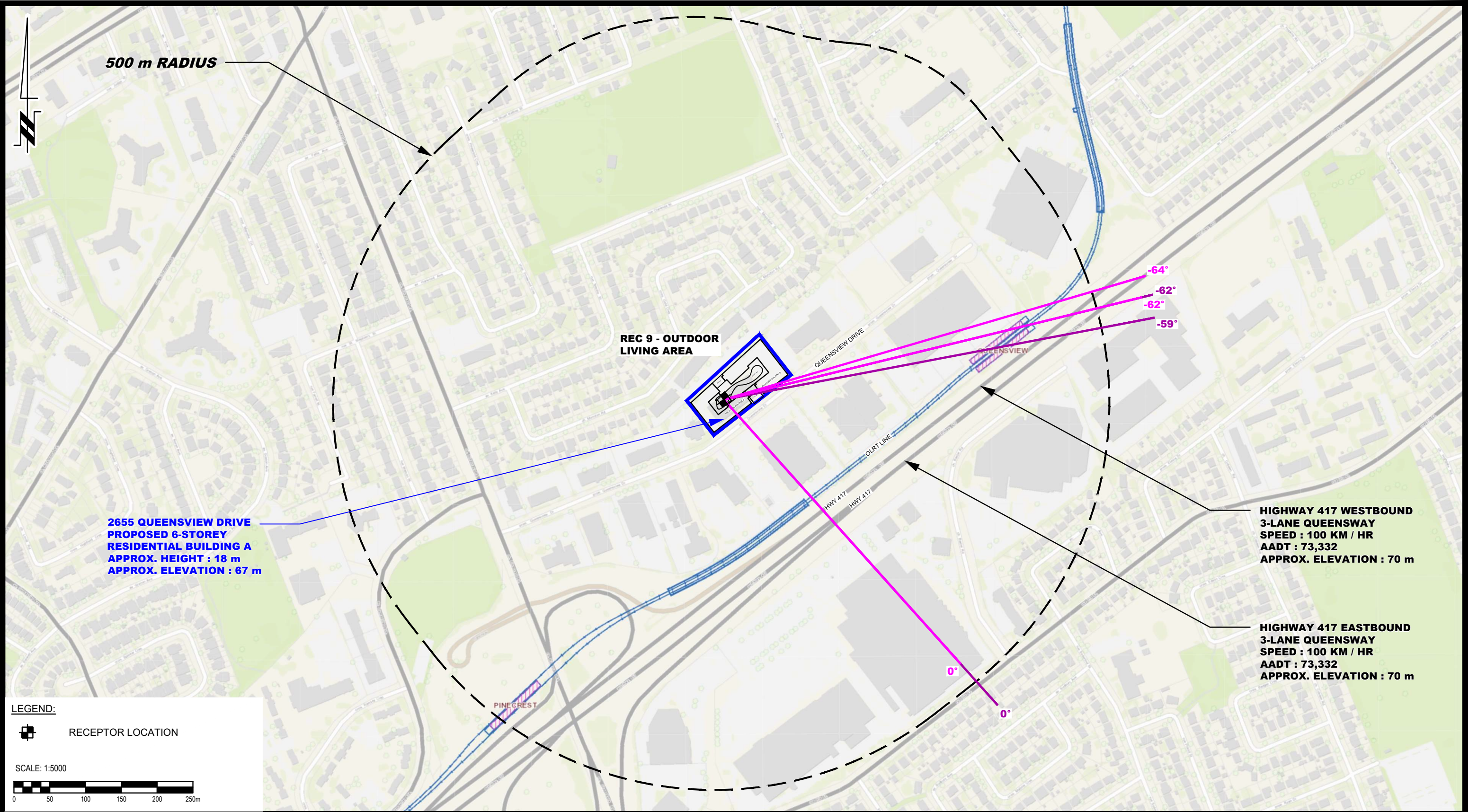
**LEGEND:**

 RECEPTOR LOCATION

SCALE: 1:5000



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|  <div>9 AURIGA DRIVE<br/>OTTAWA, ON<br/>K2E 7T9<br/>TEL: (613) 226-7381</div> |           |      |         | WESTRIDGE PACIFIC<br>NOISE ATTENUATION STUDY<br>PROPOSED RESIDENTIAL DEVELOPMENT<br>2655 QUEENSVIEW DRIVE<br>OTTAWA, ONTARIO |  |  | Scale:       | 1:5000 | Date:         | 05/2025   |
|                                                                                                                                                                  |           |      |         |                                                                                                                              |  |  | Drawn by:    | YA     | Report No.:   | PG7541-1  |
|                                                                                                                                                                  |           |      |         |                                                                                                                              |  |  | Checked by:  | OM     | Dwg. No.:     | PG7541-3D |
|                                                                                                                                                                  |           |      |         |                                                                                                                              |  |  | Approved by: | SB     | Revision No.: |           |
| NO.                                                                                                                                                              | REVISIONS | DATE | INITIAL | Title:<br>SITE GEOMETRY - REC 4-1, REC 4-3 AND REC 4-6                                                                       |  |  |              |        |               |           |



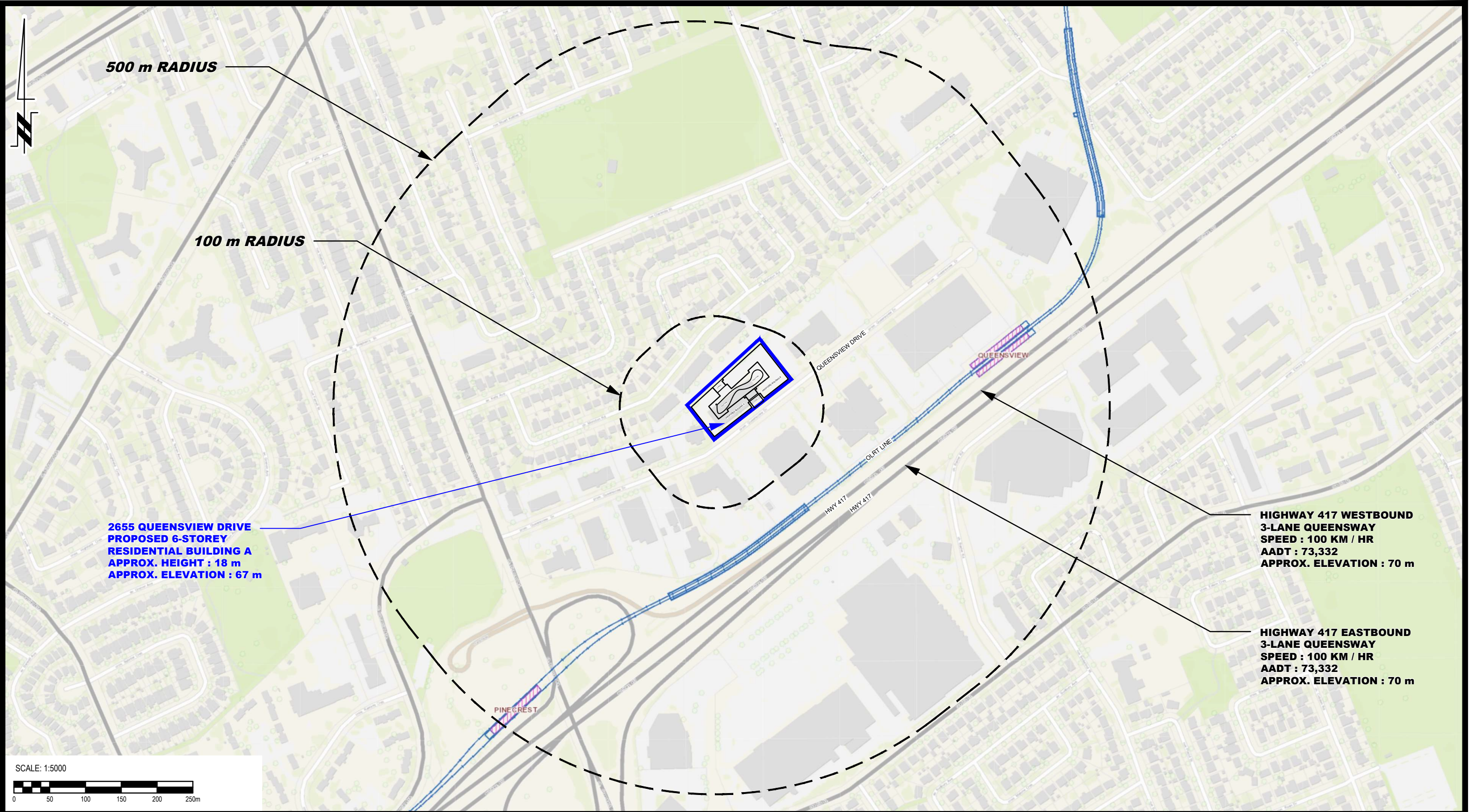
**LEGEND:**

 RECEPTOR LOCATION

SCALE: 1:5000



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|  <div>9 AURIGA DRIVE<br/>OTTAWA, ON<br/>K2E 7T9<br/>TEL: (613) 226-7381</div> |           |  |  | WESTRIDGE PACIFIC<br>NOISE ATTENUATION STUDY<br>PROPOSED RESIDENTIAL DEVELOPMENT<br>2655 QUEENSVIEW DRIVE<br>OTTAWA, ONTARIO<br>Title: <b>SITE GEOMETRY - REC 9</b> |         |  |  | Scale:       | 1:5000 | Date:         | 05/2025          |
|                                                                                                                                                                  |           |  |  |                                                                                                                                                                     |         |  |  | Drawn by:    | ZS     | Report No.:   | PG7541-1         |
|                                                                                                                                                                  |           |  |  |                                                                                                                                                                     |         |  |  | Checked by:  | OM     | Dwg. No.:     | <b>PG7541-3E</b> |
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|                                                                                                                                                                  |           |  |  |                                                                                                                                                                     |         |  |  |              |        |               |                  |
| NO.                                                                                                                                                              | REVISIONS |  |  | DATE                                                                                                                                                                | INITIAL |  |  |              |        |               |                  |



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**PATERSON  
GROUP**  
9 AURIGA DRIVE  
OTTAWA, ON  
K2E 7T9  
TEL: (613) 226-7381

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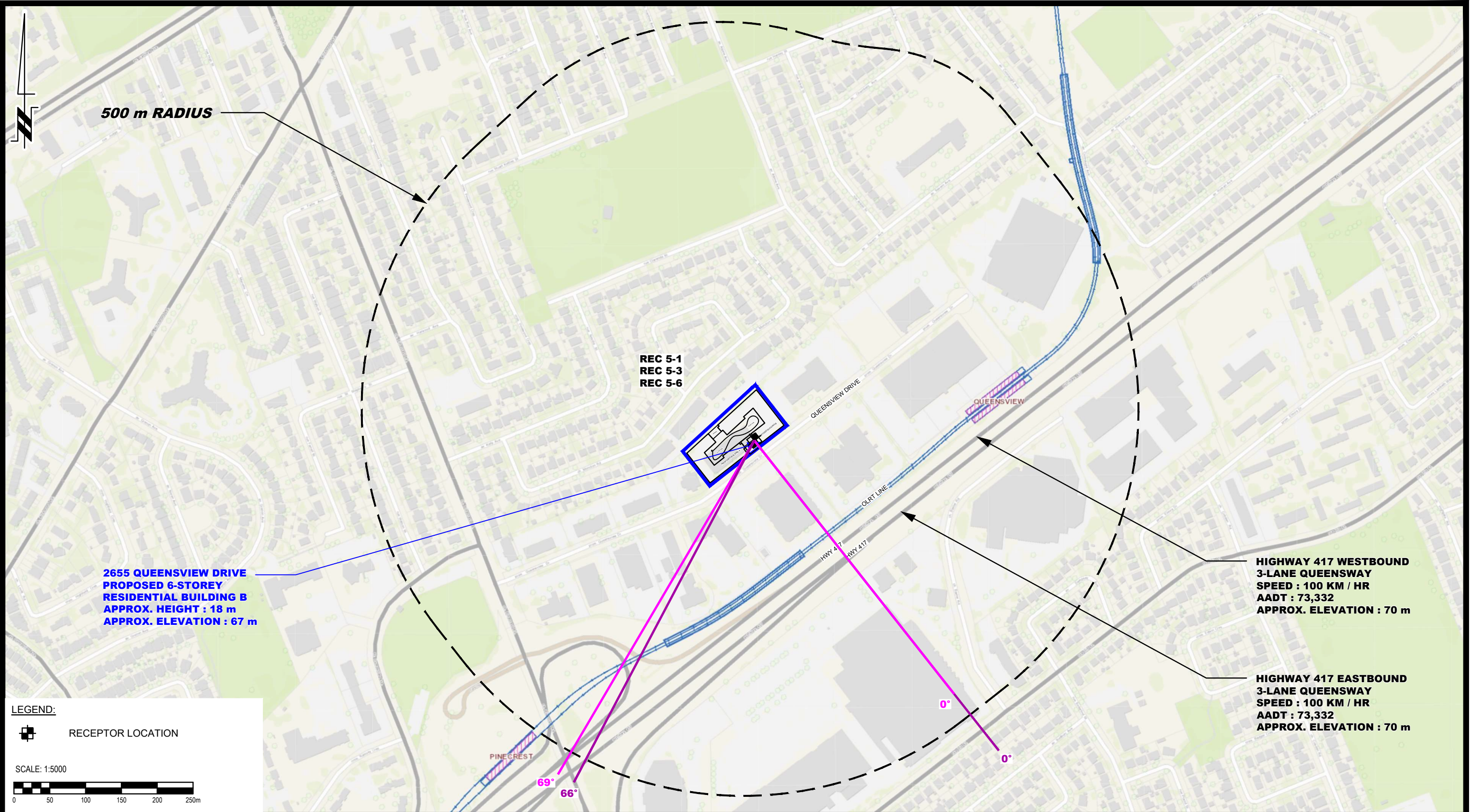
WESTRIDGE PACIFIC  
NOISE ATTENUATION STUDY  
PROPOSED RESIDENTIAL DEVELOPMENT  
2655 QUEENSVIEW DRIVE

OTTAWA,  
Title:

ONTARIO

SITE GEOMETRY - BUILDING B

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| Scale:       | 1:5000 | Date:         | 05/2025         |
| Drawn by:    | YA     | Report No.:   | PG7541-1        |
| Checked by:  | OM     | Dwg. No.:     | <b>PG7541-4</b> |
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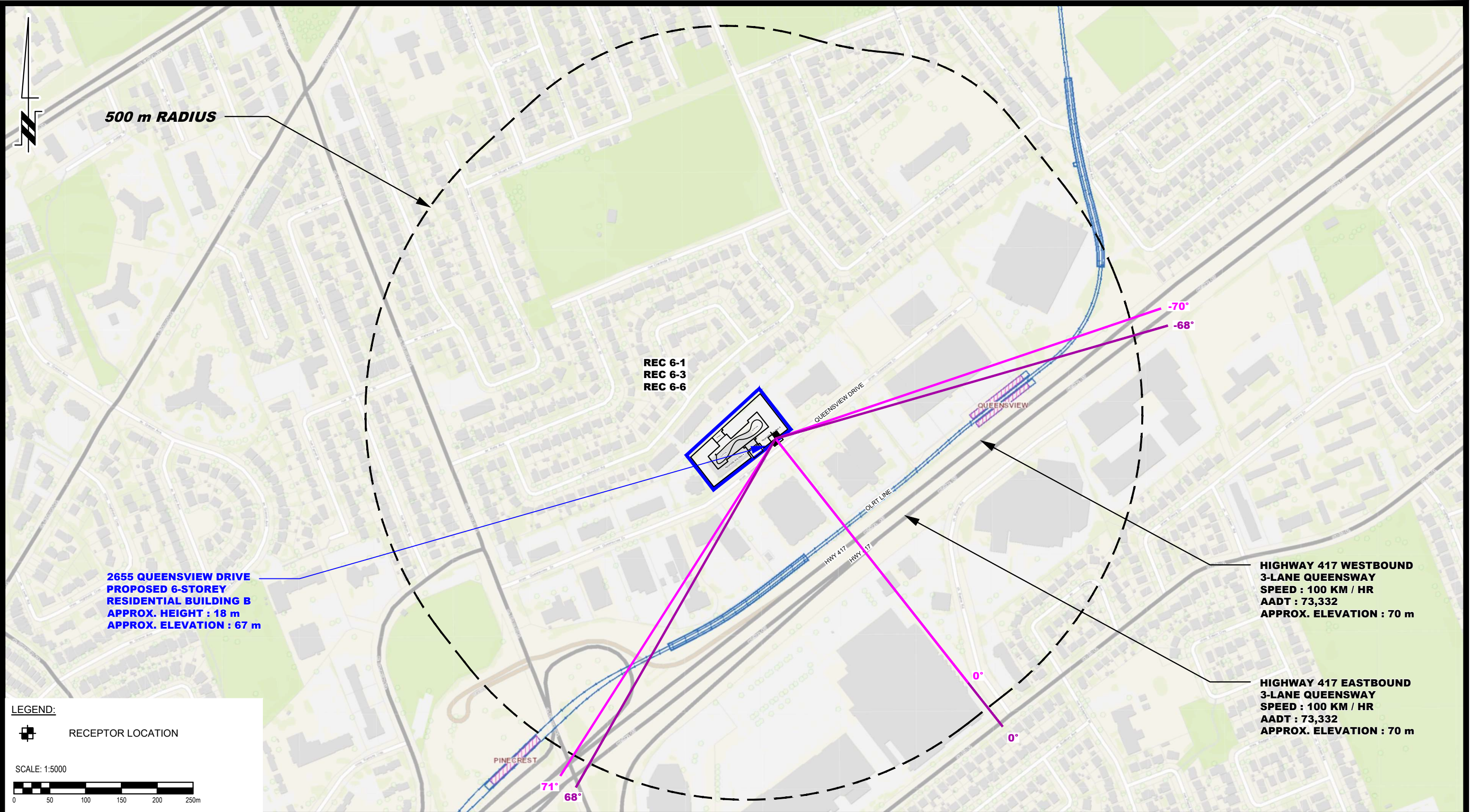


**LEGEND:**

RECEPTOR LOCATION

SCALE: 1:5000

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| <div><div><div>PATERSON<br/>GROUP</div><div>9 AURIGA DRIVE<br/>OTTAWA, ON<br/>K2E 7T9<br/>TEL: (613) 226-7381</div></div></div> |     |           |      |         | WESTRIDGE PACIFIC<br>NOISE ATTENUATION STUDY<br>PROPOSED RESIDENTIAL DEVELOPMENT<br>2655 QUEENSVIEW DRIVE<br><br>OTTAWA, ONTARIO<br>Title: <b>SITE GEOMETRY - REC 5-1, REC 5-3 AND REC 5-6</b> | Scale: 1:5000   | Date: 05/2025              |               |  |
|                                                                                                                                                                                                                    |     |           |      |         |                                                                                                                                                                                                | Drawn by: YA    | Report No.: PG7541-1       |               |  |
|                                                                                                                                                                                                                    |     |           |      |         |                                                                                                                                                                                                | Checked by: OM  | Dwg. No.: <b>PG7541-4A</b> |               |  |
|                                                                                                                                                                                                                    |     |           |      |         |                                                                                                                                                                                                | Approved by: SB |                            | Revision No.: |  |
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**LEGEND:**

RECEPTOR LOCATION

SCALE: 1:5000

**PATERSON GROUP**

9 AURIGA DRIVE  
OTTAWA, ON  
K2E 7T9  
TEL: (613) 226-7381

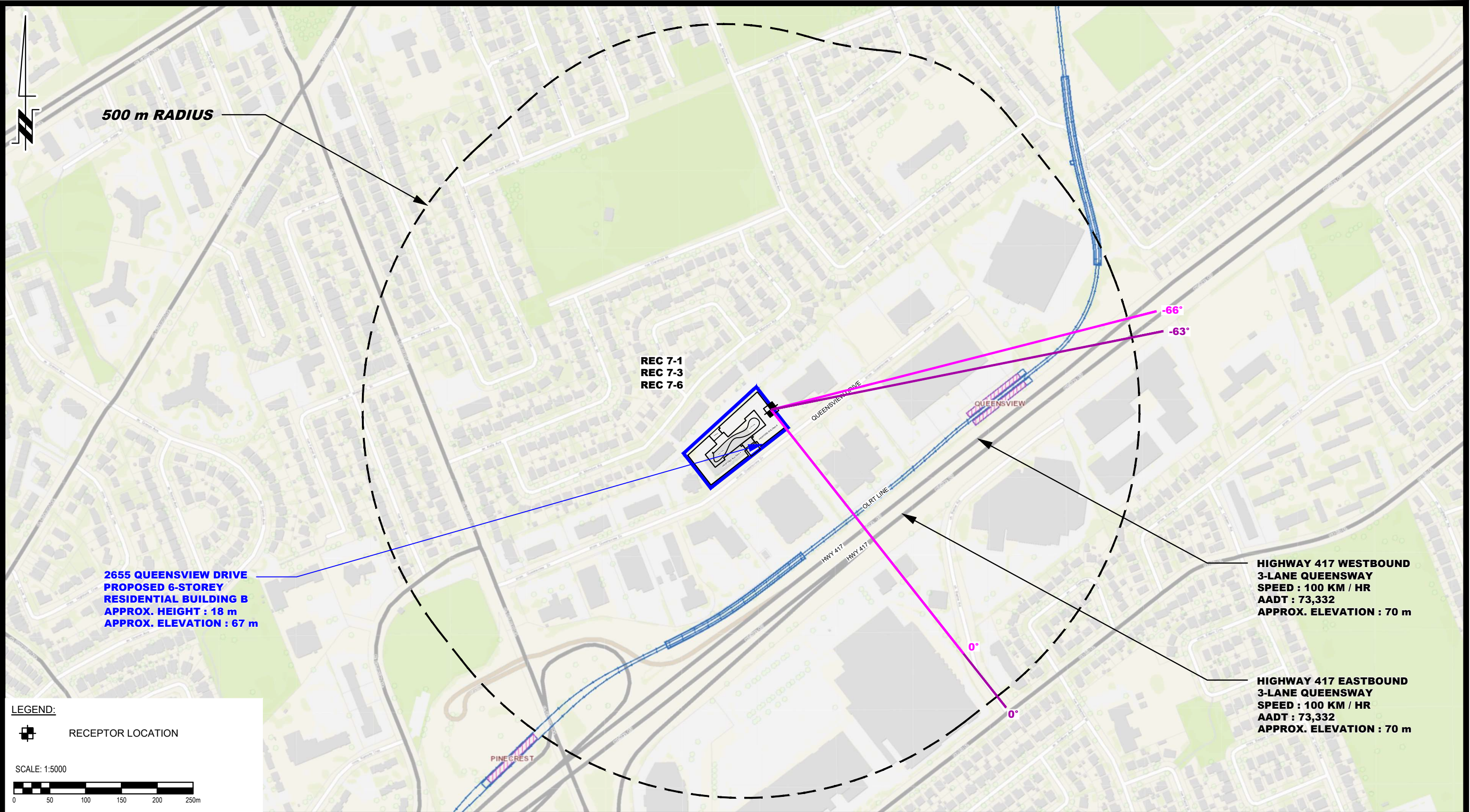
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WESTRIDGE PACIFIC  
NOISE ATTENUATION STUDY  
PROPOSED RESIDENTIAL DEVELOPMENT  
2655 QUEENSVIEW DRIVE

OTTAWA, ONTARIO

Title: **SITE GEOMETRY - REC 6-1, REC 6-3 AND REC 6-6**

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| Scale:       | 1:5000 | Date:         | 05/2025          |
| Drawn by:    | YA     | Report No.:   | PG7541-1         |
| Checked by:  | OM     | Dwg. No.:     | <b>PG7541-4B</b> |
| Approved by: | SB     | Revision No.: |                  |



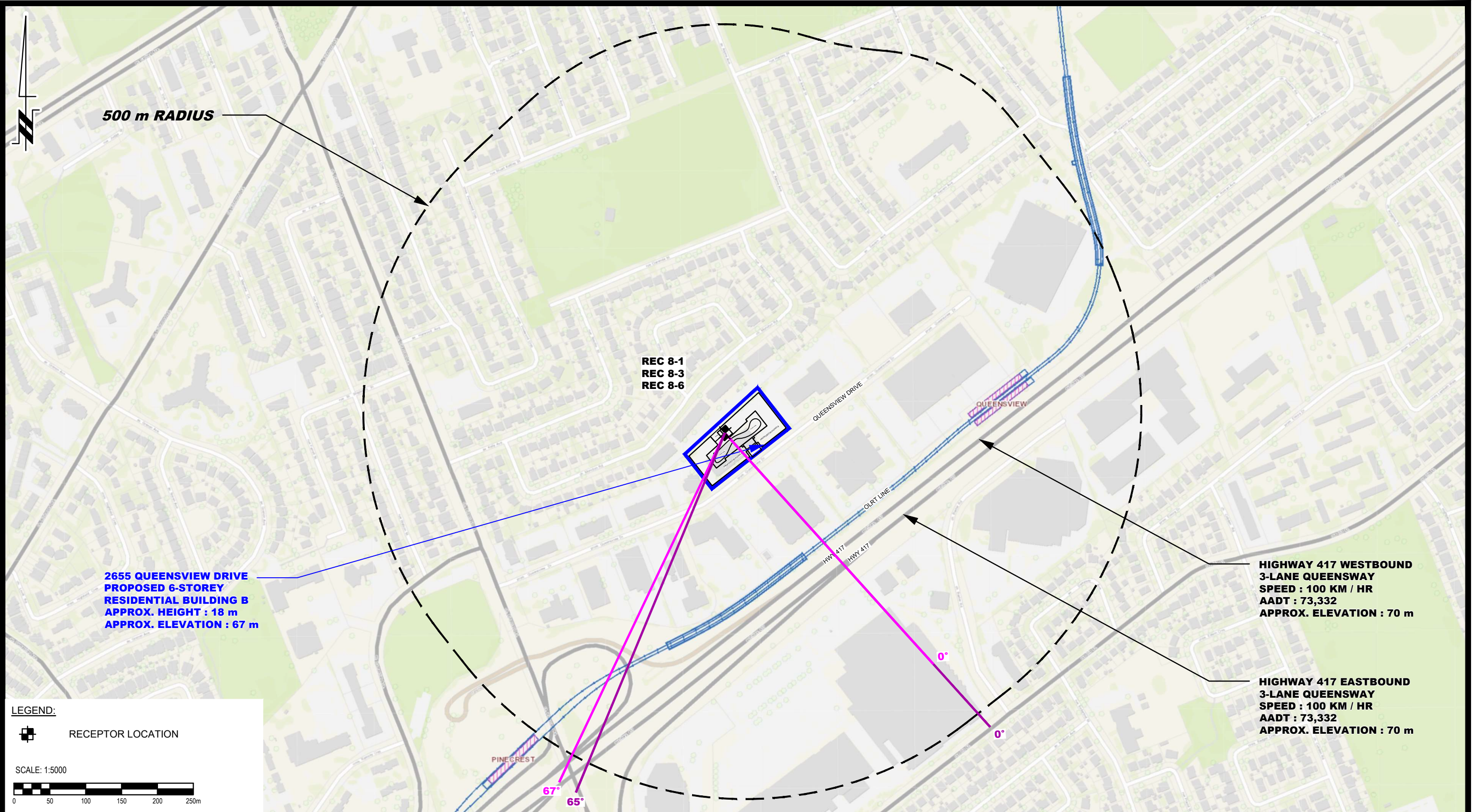
**PATERSON GROUP**  
9 AURIGA DRIVE  
OTTAWA, ON  
K2E 7T9  
TEL: (613) 226-7381

| NO. | REVISIONS | DATE | INITIAL |
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WESTRIDGE PACIFIC  
NOISE ATTENUATION STUDY  
PROPOSED RESIDENTIAL DEVELOPMENT  
2655 QUEENSVIEW DRIVE  
OTTAWA, ONTARIO

Title: **SITE GEOMETRY - REC 7-1, REC 7-3 AND REC 7-6**

|              |        |               |                  |
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| Scale:       | 1:5000 | Date:         | 05/2025          |
| Drawn by:    | YA     | Report No.:   | PG7541-1         |
| Checked by:  | OM     | Dwg. No.:     | <b>PG7541-4C</b> |
| Approved by: | SB     | Revision No.: |                  |





9 AURIGA DRIVE  
OTTAWA, ON  
K2E 7T9  
TEL: (613) 226-7381

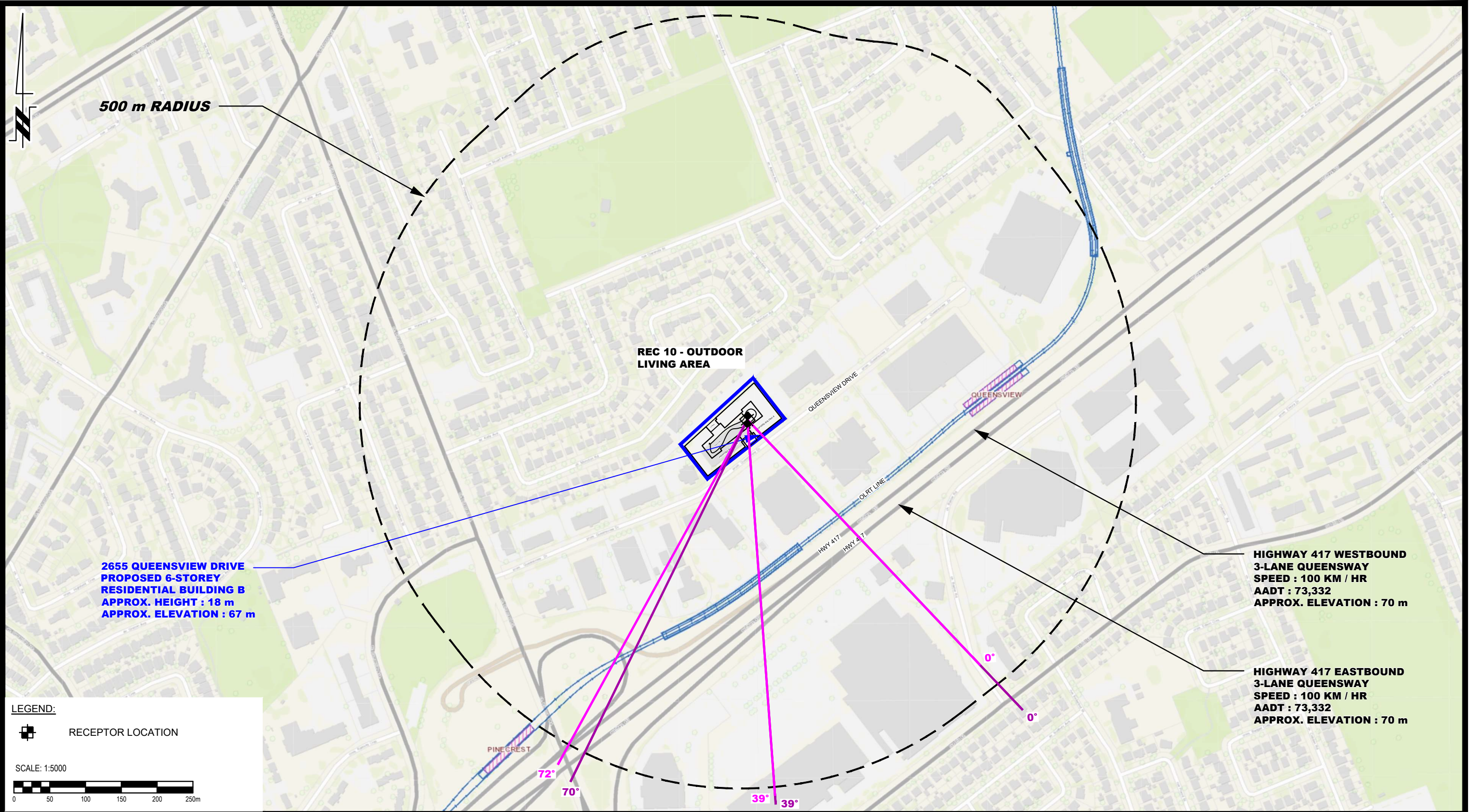
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WESTRIDGE PACIFIC  
NOISE ATTENUATION STUDY  
PROPOSED RESIDENTIAL DEVELOPMENT  
2655 QUEENSVIEW DRIVE

OTTAWA,  
Title:  
SITE GEOMETRY - REC 8-1, REC 8-3 AND REC 8-6

ONTARIO

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| Checked by:  | OM     | Dwg. No.:     | PG7541-4D |
| Approved by: | SB     | Revision No.: |           |



**LEGEND:**

RECEPTOR LOCATION

SCALE: 1:5000

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| <div><div><div>PATERSON<br/>GROUP</div><div>9 AURIGA DRIVE<br/>OTTAWA, ON<br/>K2E 7T9<br/>TEL: (613) 226-7381</div></div></div> |  |  |  |  | OTTAWA,<br>Title: | WESTRIDGE PACIFIC<br>NOISE ATTENUATION STUDY<br>PROPOSED RESIDENTIAL DEVELOPMENT<br>2655 QUEENSVIEW DRIVE<br>ONTARIO | Scale:       | 1:5000 | Date:                         | 05/2025       |
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# APPENDIX 2

## STAMSON RESULTS

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 13:51:43  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec11.te                      Time Period: Day/Night 16/8 hours  
Description: REC 1-1 - Northern Elevation - 1st Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -60.00 deg -37.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 247.00 / 247.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00

Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
Angle1 Angle2 : -62.00 deg -37.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 224.00 / 224.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
Source height = 1.50 m

ROAD (0.00 + 50.26 + 0.00) = 50.26 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj  | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|--------|-------|-------|-------|--------|
| -60    | -37    | 0.66  | 81.40  | 0.00  | -20.20 | -10.14 | 0.00  | -0.80 | 0.00  | 50.26  |

-----

Segment Leq : 50.26 dBA

↑

Results segment # 2: HWY West (day)

-----  
Source height = 1.50 m

ROAD (0.00 + 51.25 + 0.00) = 51.25 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -62    | -37    | 0.66  | 81.40  | 0.00  | -19.49 | -9.84 | 0.00  | -0.81 | 0.00  | 51.25  |

-----

Segment Leq : 51.25 dBA

Total Leq All Segments: 53.79 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 42.66 + 0.00) = 42.66 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj  | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|--------|-------|-------|-------|--------|
| -60    | -37    | 0.66  | 73.80  | 0.00  | -20.20 | -10.14 | 0.00  | -0.80 | 0.00  | 42.66  |

Segment Leq : 42.66 dBA

Results segment # 2: HWY West (night)

Source height = 1.49 m

$$\text{ROAD } (0.00 + 43.65 + 0.00) = 43.65 \text{ dBA}$$

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -62    | -37    | 0.66  | 73.80  | 0.00  | -19.49 | -9.84 | 0.00  | -0.81 | 0.00  | 43.65  |

Segment Leq : 43.65 dBA

Total Leq All Segments: 46.19 dBA



TOTAL Leq FROM ALL SOURCES (DAY): 53.79  
(NIGHT): 46.19



STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 14:11:30  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec13.te                      Time Period: Day/Night 16/8 hours  
Description: REC 1-3 - Northern Elevation - 3rd Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1    Angle2 : -60.00 deg    -37.00 deg  
Wood depth : 0    (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1    (Absorptive ground surface)  
Receiver source distance : 247.00 / 247.00 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1    (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -62.00 deg -37.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 224.00 / 224.00 m  
 Receiver height : 7.50 / 7.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00



Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 52.77 + 0.00) = 52.77 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -60    | -37    | 0.48  | 81.40  | 0.00  | -18.01 | -9.82 | 0.00  | -0.80 | 0.00  | 52.77  |

-----

Segment Leq : 52.77 dBA



Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 53.70 + 0.00) = 53.70 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -62    | -37    | 0.48  | 81.40  | 0.00  | -17.38 | -9.50 | 0.00  | -0.81 | 0.00  | 53.70  |

-----

Segment Leq : 53.70 dBA

Total Leq All Segments: 56.27 dBA



Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 45.17 + 0.00) = 45.17 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -60    | -37    | 0.48  | 73.80  | 0.00  | -18.01 | -9.82 | 0.00  | -0.80 | 0.00  | 45.17  |

Segment Leq : 45.17 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 46.10 + 0.00) = 46.10 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -62    | -37    | 0.48  | 73.80  | 0.00  | -17.38 | -9.50 | 0.00  | -0.81 | 0.00  | 46.10  |

Segment Leq : 46.10 dBA

Total Leq All Segments: 48.67 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 56.27  
(NIGHT): 48.67

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 14:16:18  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec16.te                      Time Period: Day/Night 16/8 hours  
Description: REC 1-6 - Northern Elevation - 6th Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -60.00 deg -37.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 247.00 / 247.00 m  
Receiver height : 16.50 / 16.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -62.00 deg -37.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 224.00 / 224.00 m  
 Receiver height : 16.50 / 16.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

Source height = 1.50 m

ROAD (0.00 + 56.55 + 0.00) = 56.55 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -60    | -37    | 0.21  | 81.40  | 0.00  | -14.72 | -9.32 | 0.00  | -0.80 | 0.00  | 56.55  |

Segment Leq : 56.55 dBA

↑

Results segment # 2: HWY West (day)

Source height = 1.50 m

ROAD (0.00 + 57.39 + 0.00) = 57.39 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -62    | -37    | 0.21  | 81.40  | 0.00  | -14.21 | -8.98 | 0.00  | -0.81 | 0.00  | 57.39  |

Segment Leq : 57.39 dBA

Total Leq All Segments: 60.00 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 48.95 + 0.00) = 48.95 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -60    | -37    | 0.21  | 73.80  | 0.00  | -14.72 | -9.32 | 0.00  | -0.80 | 0.00  | 48.95  |

Segment Leq : 48.95 dBA

↑  
Results segment # 2: HWY West (night)  
-----

Source height = 1.49 m

ROAD (0.00 + 49.79 + 0.00) = 49.79 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -62    | -37    | 0.21  | 73.80  | 0.00  | -14.21 | -8.98 | 0.00  | -0.81 | 0.00  | 49.79  |

Segment Leq : 49.79 dBA

Total Leq All Segments: 52.40 dBA

↑  
  
TOTAL Leq FROM ALL SOURCES (DAY): 60.00  
(NIGHT): 52.40

↑  
↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 14:49:00  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec21.te                      Time Period: Day/Night 16/8 hours  
Description: REC 2-1 - Western Elevation - 1st Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : 0.00 deg 65.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 222.00 / 222.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : 0.00 deg 67.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 203.00 / 203.00 m  
 Receiver height : 1.50 / 1.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 56.06 + 0.00) = 56.06 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.66  | 81.40  | 0.00  | -19.43 | -5.09 | 0.00  | -0.81 | 0.00  | 56.06  |

-----  
 Segment Leq : 56.06 dBA

↑

Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 56.78 + 0.00) = 56.78 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.66  | 81.40  | 0.00  | -18.78 | -5.01 | 0.00  | -0.83 | 0.00  | 56.78  |

-----  
 Segment Leq : 56.78 dBA

Total Leq All Segments: 59.45 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 48.47 + 0.00) = 48.47 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.66  | 73.80  | 0.00  | -19.43 | -5.09 | 0.00  | -0.81 | 0.00  | 48.47  |

Segment Leq : 48.47 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 49.18 + 0.00) = 49.18 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.66  | 73.80  | 0.00  | -18.78 | -5.01 | 0.00  | -0.83 | 0.00  | 49.18  |

Segment Leq : 49.18 dBA

Total Leq All Segments: 51.85 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 59.45  
(NIGHT): 51.85

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 14:50:14  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec23.te                      Time Period: Day/Night 16/8 hours  
Description: REC 2-3 - Western Elevation - 3rd Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : 0.00 deg 65.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 222.00 / 222.00 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : 0.00 deg 67.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 0 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 203.00 / 203.00 m  
 Receiver height : 7.50 / 7.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00



Results segment # 1: HWY East (day)

Source height = 1.50 m

ROAD (0.00 + 58.34 + 0.00) = 58.34 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.48  | 81.40  | 0.00  | -17.32 | -4.92 | 0.00  | -0.81 | 0.00  | 58.34  |

Segment Leq : 58.34 dBA



Results segment # 2: HWY West (day)

Source height = 1.50 m

ROAD (0.00 + 59.83 + 0.00) = 59.83 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.48  | 81.40  | 0.00  | -16.75 | -4.82 | 0.00  | 0.00  | 0.00  | 59.83  |

Segment Leq : 59.83 dBA

Total Leq All Segments: 62.16 dBA



Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 50.74 + 0.00) = 50.74 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.48  | 73.80  | 0.00  | -17.32 | -4.92 | 0.00  | -0.81 | 0.00  | 50.74  |

Segment Leq : 50.74 dBA

↑  
Results segment # 2: HWY West (night)  
-----

Source height = 1.49 m

ROAD (0.00 + 51.40 + 0.00) = 51.40 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.48  | 73.80  | 0.00  | -16.75 | -4.82 | 0.00  | -0.83 | 0.00  | 51.40  |

Segment Leq : 51.40 dBA

Total Leq All Segments: 54.09 dBA

↑  
  
TOTAL Leq FROM ALL SOURCES (DAY): 62.16  
(NIGHT): 54.09

↑  
↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 14:51:59  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec26.te                      Time Period: Day/Night 16/8 hours  
Description: REC 2-6 - Western Elevation - 6th Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1    Angle2 : 0.00 deg    65.00 deg  
Wood depth : 0    (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1    (Absorptive ground surface)  
Receiver source distance : 222.00 / 222.00 m  
Receiver height : 16.50 / 16.50 m  
Topography : 1    (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : 0.00 deg 67.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 203.00 / 203.00 m  
 Receiver height : 16.50 / 16.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00



Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 61.77 + 0.00) = 61.77 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.21  | 81.40  | 0.00  | -14.16 | -4.65 | 0.00  | -0.81 | 0.00  | 61.77  |

-----

Segment Leq : 61.77 dBA



Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 62.34 + 0.00) = 62.34 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.21  | 81.40  | 0.00  | -13.69 | -4.53 | 0.00  | -0.83 | 0.00  | 62.34  |

-----

Segment Leq : 62.34 dBA

Total Leq All Segments: 65.07 dBA



Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 54.17 + 0.00) = 54.17 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.21  | 73.80  | 0.00  | -14.16 | -4.65 | 0.00  | -0.81 | 0.00  | 54.17  |

-----

Segment Leq : 54.17 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 54.74 + 0.00) = 54.74 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.21  | 73.80  | 0.00  | -13.69 | -4.53 | 0.00  | -0.83 | 0.00  | 54.74  |

-----

Segment Leq : 54.74 dBA

Total Leq All Segments: 57.47 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 65.07  
(NIGHT): 57.47

↑

↑

Filename: rec31.te                      Time Period: Day/Night 16/8 hours  
Description: REC 3-1 - Southern Elevation - 1st Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -67.00 deg 70.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 196.00 / 196.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00



Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -70.00 deg 72.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 0 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 177.00 / 177.00 m  
 Receiver height : 1.50 / 1.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 60.09 + 0.00) = 60.09 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -67    | 70     | 0.66  | 81.40  | 0.00  | -18.53 | -1.94 | 0.00  | -0.84 | 0.00  | 60.09  |

-----

Segment Leq : 60.09 dBA

↑

Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 61.76 + 0.00) = 61.76 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 72     | 0.66  | 81.40  | 0.00  | -17.79 | -1.85 | 0.00  | 0.00  | 0.00  | 61.76  |

-----

Segment Leq : 61.76 dBA

Total Leq All Segments: 64.02 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 52.50 + 0.00) = 52.50 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -67    | 70     | 0.66  | 73.80  | 0.00  | -18.53 | -1.94 | 0.00  | -0.84 | 0.00  | 52.50  |

-----

Segment Leq : 52.50 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 53.31 + 0.00) = 53.31 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 72     | 0.66  | 73.80  | 0.00  | -17.79 | -1.85 | 0.00  | -0.85 | 0.00  | 53.31  |

-----

Segment Leq : 53.31 dBA

Total Leq All Segments: 55.93 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 64.02  
(NIGHT): 55.93

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 15:11:58  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec33.te                      Time Period: Day/Night 16/8 hours  
Description: REC 3-3 - Southern Elevation - 3rd Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -67.00 deg 70.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 196.00 / 196.00 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -70.00 deg 72.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 0 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 177.00 / 177.00 m  
 Receiver height : 7.50 / 7.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 62.29 + 0.00) = 62.29 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -67    | 70     | 0.48  | 81.40  | 0.00  | -16.52 | -1.75 | 0.00  | -0.84 | 0.00  | 62.29  |

-----

Segment Leq : 62.29 dBA

↑

Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 63.89 + 0.00) = 63.89 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 72     | 0.48  | 81.40  | 0.00  | -15.87 | -1.64 | 0.00  | 0.00  | 0.00  | 63.89  |

-----

Segment Leq : 63.89 dBA

Total Leq All Segments: 66.17 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 54.69 + 0.00) = 54.69 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -67    | 70     | 0.48  | 73.80  | 0.00  | -16.52 | -1.75 | 0.00  | -0.84 | 0.00  | 54.69  |

-----

Segment Leq : 54.69 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 55.44 + 0.00) = 55.44 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 72     | 0.48  | 73.80  | 0.00  | -15.87 | -1.64 | 0.00  | -0.85 | 0.00  | 55.44  |

-----

Segment Leq : 55.44 dBA

Total Leq All Segments: 58.09 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 66.17  
(NIGHT): 58.09

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 15:37:44  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec36.te                      Time Period: Day/Night 16/8 hours  
Description: REC 3-6 - Southern Elevation - 6th Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -67.00 deg 70.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 196.00 / 196.00 m  
Receiver height : 16.50 / 16.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -70.00 deg 72.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 177.00 / 177.00 m  
 Receiver height : 16.50 / 16.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00



Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 65.61 + 0.00) = 65.61 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -67    | 70     | 0.21  | 81.40  | 0.00  | -13.51 | -1.44 | 0.00  | -0.84 | 0.00  | 65.61  |

-----

Segment Leq : 65.61 dBA



Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 66.27 + 0.00) = 66.27 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 72     | 0.21  | 81.40  | 0.00  | -12.97 | -1.31 | 0.00  | -0.85 | 0.00  | 66.27  |

-----

Segment Leq : 66.27 dBA

Total Leq All Segments: 68.96 dBA



Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 58.01 + 0.00) = 58.01 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -67    | 70     | 0.21  | 73.80  | 0.00  | -13.51 | -1.44 | 0.00  | -0.84 | 0.00  | 58.01  |

-----

Segment Leq : 58.01 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 58.67 + 0.00) = 58.67 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 72     | 0.21  | 73.80  | 0.00  | -12.97 | -1.31 | 0.00  | -0.85 | 0.00  | 58.67  |

-----

Segment Leq : 58.67 dBA

Total Leq All Segments: 61.36 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 68.96  
(NIGHT): 61.36

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 15:44:34  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec41.te                      Time Period: Day/Night 16/8 hours  
Description: REC 4-1 - Eastern Elevation - 1st Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -66.00 deg 0.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 204.00 / 204.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -68.00 deg 0.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 185.00 / 185.00 m  
 Receiver height : 1.50 / 1.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 56.70 + 0.00) = 56.70 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.66  | 81.40  | 0.00  | -18.82 | -5.05 | 0.00  | -0.83 | 0.00  | 56.70  |

-----

Segment Leq : 56.70 dBA

↑

Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 57.47 + 0.00) = 57.47 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 0      | 0.66  | 81.40  | 0.00  | -18.11 | -4.97 | 0.00  | -0.85 | 0.00  | 57.47  |

-----

Segment Leq : 57.47 dBA

Total Leq All Segments: 60.11 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 49.10 + 0.00) = 49.10 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.66  | 73.80  | 0.00  | -18.82 | -5.05 | 0.00  | -0.83 | 0.00  | 49.10  |

-----

Segment Leq : 49.10 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 49.87 + 0.00) = 49.87 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 0      | 0.66  | 73.80  | 0.00  | -18.11 | -4.97 | 0.00  | -0.85 | 0.00  | 49.87  |

-----

Segment Leq : 49.87 dBA

Total Leq All Segments: 52.51 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 60.11  
(NIGHT): 52.51

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 15:45:18  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec43.te                      Time Period: Day/Night 16/8 hours  
Description: REC 4-3 - Eastern Elevation - 3rd Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -66.00 deg 0.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 204.00 / 204.00 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -68.00 deg 0.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 185.00 / 185.00 m  
 Receiver height : 7.50 / 7.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 58.92 + 0.00) = 58.92 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.48  | 81.40  | 0.00  | -16.78 | -4.87 | 0.00  | -0.83 | 0.00  | 58.92  |

-----

Segment Leq : 58.92 dBA

↑

Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 59.62 + 0.00) = 59.62 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 0      | 0.48  | 81.40  | 0.00  | -16.15 | -4.78 | 0.00  | -0.85 | 0.00  | 59.62  |

-----

Segment Leq : 59.62 dBA

Total Leq All Segments: 62.29 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 51.32 + 0.00) = 51.32 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.48  | 73.80  | 0.00  | -16.78 | -4.87 | 0.00  | -0.83 | 0.00  | 51.32  |

Segment Leq : 51.32 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 52.03 + 0.00) = 52.03 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 0      | 0.48  | 73.80  | 0.00  | -16.15 | -4.78 | 0.00  | -0.85 | 0.00  | 52.03  |

Segment Leq : 52.03 dBA

Total Leq All Segments: 54.70 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 62.29  
(NIGHT): 54.70

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 15:46:25  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec46.te                      Time Period: Day/Night 16/8 hours  
Description: REC 4-6 - Eastern Elevation - 6th Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -66.00 deg 0.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 204.00 / 204.00 m  
Receiver height : 16.50 / 16.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -68.00 deg 0.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 185.00 / 185.00 m  
 Receiver height : 16.50 / 16.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

Source height = 1.50 m

ROAD (0.00 + 62.26 + 0.00) = 62.26 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.21  | 81.40  | 0.00  | -13.72 | -4.59 | 0.00  | -0.83 | 0.00  | 62.26  |

Segment Leq : 62.26 dBA

↑

Results segment # 2: HWY West (day)

Source height = 1.50 m

ROAD (0.00 + 62.87 + 0.00) = 62.87 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 0      | 0.21  | 81.40  | 0.00  | -13.20 | -4.48 | 0.00  | -0.85 | 0.00  | 62.87  |

Segment Leq : 62.87 dBA

Total Leq All Segments: 65.59 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 54.66 + 0.00) = 54.66 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.21  | 73.80  | 0.00  | -13.72 | -4.59 | 0.00  | -0.83 | 0.00  | 54.66  |

-----

Segment Leq : 54.66 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 55.27 + 0.00) = 55.27 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 0      | 0.21  | 73.80  | 0.00  | -13.20 | -4.48 | 0.00  | -0.85 | 0.00  | 55.27  |

-----

Segment Leq : 55.27 dBA

Total Leq All Segments: 57.99 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 65.59  
(NIGHT): 57.99

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 15:54:10  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec51.te                      Time Period: Day/Night 16/8 hours  
Description: REC 5-1 - Western Elevation - 1st Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : 0.00 deg 62.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 202.00 / 202.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : 0.00 deg 66.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 182.00 / 182.00 m  
 Receiver height : 1.50 / 1.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 56.59 + 0.00) = 56.59 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 62     | 0.66  | 81.40  | 0.00  | -18.75 | -5.23 | 0.00  | -0.83 | 0.00  | 56.59  |

-----  
 Segment Leq : 56.59 dBA

↑

Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 57.51 + 0.00) = 57.51 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 66     | 0.66  | 81.40  | 0.00  | -17.99 | -5.05 | 0.00  | -0.85 | 0.00  | 57.51  |

-----  
 Segment Leq : 57.51 dBA

Total Leq All Segments: 60.08 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 48.99 + 0.00) = 48.99 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 62     | 0.66  | 73.80  | 0.00  | -18.75 | -5.23 | 0.00  | -0.83 | 0.00  | 48.99  |

Segment Leq : 48.99 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 49.91 + 0.00) = 49.91 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 66     | 0.66  | 73.80  | 0.00  | -17.99 | -5.05 | 0.00  | -0.85 | 0.00  | 49.91  |

Segment Leq : 49.91 dBA

Total Leq All Segments: 52.48 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 60.08  
(NIGHT): 52.48

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 15:57:04  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec53.te                      Time Period: Day/Night 16/8 hours  
Description: REC 5-3 - Western Elevation - 3rd Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : 0.00 deg 62.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 202.00 / 202.00 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : 0.00 deg 66.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 182.00 / 182.00 m  
 Receiver height : 7.50 / 7.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

Source height = 1.50 m

ROAD (0.00 + 58.77 + 0.00) = 58.77 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 62     | 0.48  | 81.40  | 0.00  | -16.71 | -5.08 | 0.00  | -0.83 | 0.00  | 58.77  |

Segment Leq : 58.77 dBA

↑

Results segment # 2: HWY West (day)

Source height = 1.50 m

ROAD (0.00 + 59.63 + 0.00) = 59.63 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 66     | 0.48  | 81.40  | 0.00  | -16.04 | -4.87 | 0.00  | -0.85 | 0.00  | 59.63  |

Segment Leq : 59.63 dBA

Total Leq All Segments: 62.23 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 51.18 + 0.00) = 51.18 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 62     | 0.48  | 73.80  | 0.00  | -16.71 | -5.08 | 0.00  | -0.83 | 0.00  | 51.18  |

Segment Leq : 51.18 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 52.03 + 0.00) = 52.03 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 66     | 0.48  | 73.80  | 0.00  | -16.04 | -4.87 | 0.00  | -0.85 | 0.00  | 52.03  |

Segment Leq : 52.03 dBA

Total Leq All Segments: 54.64 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 62.23  
(NIGHT): 54.64

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 15:58:05  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec56.te                      Time Period: Day/Night 16/8 hours  
Description: REC 5-6 - Western Elevation - 6th Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : 0.00 deg 62.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 202.00 / 202.00 m  
Receiver height : 16.50 / 16.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : 0.00 deg 66.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 182.00 / 182.00 m  
 Receiver height : 16.50 / 16.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 62.07 + 0.00) = 62.07 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 62     | 0.21  | 81.40  | 0.00  | -13.67 | -4.83 | 0.00  | -0.83 | 0.00  | 62.07  |

-----

Segment Leq : 62.07 dBA

↑

Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 62.84 + 0.00) = 62.84 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 66     | 0.21  | 81.40  | 0.00  | -13.12 | -4.59 | 0.00  | -0.85 | 0.00  | 62.84  |

-----

Segment Leq : 62.84 dBA

Total Leq All Segments: 65.48 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 54.47 + 0.00) = 54.47 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 62     | 0.21  | 73.80  | 0.00  | -13.67 | -4.83 | 0.00  | -0.83 | 0.00  | 54.47  |

-----

Segment Leq : 54.47 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 55.24 + 0.00) = 55.24 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 66     | 0.21  | 73.80  | 0.00  | -13.12 | -4.59 | 0.00  | -0.85 | 0.00  | 55.24  |

-----

Segment Leq : 55.24 dBA

Total Leq All Segments: 57.88 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 65.48  
(NIGHT): 57.88

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 16:06:03  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec61.te                      Time Period: Day/Night 16/8 hours  
Description: REC 6-1 - Southern Elevation - 1st Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1    Angle2 : -68.00 deg    68.00 deg  
Wood depth : 0    (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1    (Absorptive ground surface)  
Receiver source distance : 193.00 / 193.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1    (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -70.00 deg 71.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 175.00 / 175.00 m  
 Receiver height : 1.50 / 1.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 60.18 + 0.00) = 60.18 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 68     | 0.66  | 81.40  | 0.00  | -18.42 | -1.96 | 0.00  | -0.84 | 0.00  | 60.18  |

-----

Segment Leq : 60.18 dBA

↑

Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 60.97 + 0.00) = 60.97 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 71     | 0.66  | 81.40  | 0.00  | -17.71 | -1.86 | 0.00  | -0.85 | 0.00  | 60.97  |

-----

Segment Leq : 60.97 dBA

Total Leq All Segments: 63.60 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 52.59 + 0.00) = 52.59 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 68     | 0.66  | 73.80  | 0.00  | -18.42 | -1.96 | 0.00  | -0.84 | 0.00  | 52.59  |

-----

Segment Leq : 52.59 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 53.37 + 0.00) = 53.37 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 71     | 0.66  | 73.80  | 0.00  | -17.71 | -1.86 | 0.00  | -0.85 | 0.00  | 53.37  |

-----

Segment Leq : 53.37 dBA

Total Leq All Segments: 56.01 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 63.60  
(NIGHT): 56.01

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 16:07:56  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec63.te                      Time Period: Day/Night 16/8 hours  
Description: REC 6-3 - Southern Elevation - 3rd Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1    Angle2 : -68.00 deg    68.00 deg  
Wood depth : 0    (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1    (Absorptive ground surface)  
Receiver source distance : 193.00 / 193.00 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1    (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -70.00 deg 71.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 175.00 / 175.00 m  
 Receiver height : 7.50 / 7.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 62.37 + 0.00) = 62.37 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 68     | 0.48  | 81.40  | 0.00  | -16.42 | -1.77 | 0.00  | -0.84 | 0.00  | 62.37  |

-----

Segment Leq : 62.37 dBA

↑

Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 63.09 + 0.00) = 63.09 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 71     | 0.48  | 81.40  | 0.00  | -15.79 | -1.66 | 0.00  | -0.85 | 0.00  | 63.09  |

-----

Segment Leq : 63.09 dBA

Total Leq All Segments: 65.76 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 54.77 + 0.00) = 54.77 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 68     | 0.48  | 73.80  | 0.00  | -16.42 | -1.77 | 0.00  | -0.84 | 0.00  | 54.77  |

-----

Segment Leq : 54.77 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 55.49 + 0.00) = 55.49 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 71     | 0.48  | 73.80  | 0.00  | -15.79 | -1.66 | 0.00  | -0.85 | 0.00  | 55.49  |

-----

Segment Leq : 55.49 dBA

Total Leq All Segments: 58.16 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 65.76  
(NIGHT): 58.16

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 16:08:59  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec66.te                      Time Period: Day/Night 16/8 hours  
Description: REC 6-6 - Southern Elevation - 6th Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -68.00 deg 68.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 193.00 / 193.00 m  
Receiver height : 16.50 / 16.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -70.00 deg 71.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 175.00 / 175.00 m  
 Receiver height : 16.50 / 16.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00



Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 65.66 + 0.00) = 65.66 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 68     | 0.21  | 81.40  | 0.00  | -13.43 | -1.47 | 0.00  | -0.84 | 0.00  | 65.66  |

-----

Segment Leq : 65.66 dBA



Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 66.30 + 0.00) = 66.30 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 71     | 0.21  | 81.40  | 0.00  | -12.91 | -1.33 | 0.00  | -0.85 | 0.00  | 66.30  |

-----

Segment Leq : 66.30 dBA

Total Leq All Segments: 69.00 dBA



Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 58.07 + 0.00) = 58.07 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -68    | 68     | 0.21  | 73.80  | 0.00  | -13.43 | -1.47 | 0.00  | -0.84 | 0.00  | 58.07  |

-----

Segment Leq : 58.07 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 58.70 + 0.00) = 58.70 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -70    | 71     | 0.21  | 73.80  | 0.00  | -12.91 | -1.33 | 0.00  | -0.85 | 0.00  | 58.70  |

-----

Segment Leq : 58.70 dBA

Total Leq All Segments: 61.41 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 69.00  
(NIGHT): 61.41

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 16:12:01  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec71.te                      Time Period: Day/Night 16/8 hours  
Description: REC 7-1 - Eastern Elevation - 1st Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -63.00 deg 0.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 209.00 / 209.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -66.00 deg 0.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 226.00 / 226.00 m  
 Receiver height : 1.50 / 1.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00



Results segment # 1: HWY East (day)

Source height = 1.50 m

ROAD (0.00 + 56.40 + 0.00) = 56.40 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -63    | 0      | 0.66  | 81.40  | 0.00  | -18.99 | -5.18 | 0.00  | -0.83 | 0.00  | 56.40  |

Segment Leq : 56.40 dBA



Results segment # 2: HWY West (day)

Source height = 1.50 m

ROAD (0.00 + 55.98 + 0.00) = 55.98 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.66  | 81.40  | 0.00  | -19.56 | -5.05 | 0.00  | -0.81 | 0.00  | 55.98  |

Segment Leq : 55.98 dBA

Total Leq All Segments: 59.21 dBA



Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 48.80 + 0.00) = 48.80 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -63    | 0      | 0.66  | 73.80  | 0.00  | -18.99 | -5.18 | 0.00  | -0.83 | 0.00  | 48.80  |

-----

Segment Leq : 48.80 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 48.38 + 0.00) = 48.38 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.66  | 73.80  | 0.00  | -19.56 | -5.05 | 0.00  | -0.81 | 0.00  | 48.38  |

-----

Segment Leq : 48.38 dBA

Total Leq All Segments: 51.61 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 59.21  
(NIGHT): 51.61

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 16:14:00  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec73.te                      Time Period: Day/Night 16/8 hours  
Description: REC 7-3 - Eastern Elevation - 3rd Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1    Angle2 : -63.00 deg    0.00 deg  
Wood depth : 0    (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1    (Absorptive ground surface)  
Receiver source distance : 209.00 / 209.00 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1    (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -66.00 deg 0.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 226.00 / 226.00 m  
 Receiver height : 7.50 / 7.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00



Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 58.61 + 0.00) = 58.61 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -63    | 0      | 0.48  | 81.40  | 0.00  | -16.93 | -5.02 | 0.00  | -0.83 | 0.00  | 58.61  |

-----

Segment Leq : 58.61 dBA



Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 58.28 + 0.00) = 58.28 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.48  | 81.40  | 0.00  | -17.44 | -4.87 | 0.00  | -0.81 | 0.00  | 58.28  |

-----

Segment Leq : 58.28 dBA

Total Leq All Segments: 61.46 dBA



Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 51.02 + 0.00) = 51.02 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -63    | 0      | 0.48  | 73.80  | 0.00  | -16.93 | -5.02 | 0.00  | -0.83 | 0.00  | 51.02  |

-----

Segment Leq : 51.02 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 50.68 + 0.00) = 50.68 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.48  | 73.80  | 0.00  | -17.44 | -4.87 | 0.00  | -0.81 | 0.00  | 50.68  |

-----

Segment Leq : 50.68 dBA

Total Leq All Segments: 53.86 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 61.46  
(NIGHT): 53.86

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 16:14:54  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec76.te                      Time Period: Day/Night 16/8 hours  
Description: REC 7-6 - Eastern Elevation - 6th Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -63.00 deg 0.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 209.00 / 209.00 m  
Receiver height : 16.50 / 16.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : -66.00 deg 0.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 226.00 / 226.00 m  
 Receiver height : 16.50 / 16.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00



Results segment # 1: HWY East (day)

Source height = 1.50 m

ROAD (0.00 + 61.96 + 0.00) = 61.96 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -63    | 0      | 0.21  | 81.40  | 0.00  | -13.84 | -4.77 | 0.00  | -0.83 | 0.00  | 61.96  |

Segment Leq : 61.96 dBA



Results segment # 2: HWY West (day)

Source height = 1.50 m

ROAD (0.00 + 61.74 + 0.00) = 61.74 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.21  | 81.40  | 0.00  | -14.26 | -4.59 | 0.00  | -0.81 | 0.00  | 61.74  |

Segment Leq : 61.74 dBA

Total Leq All Segments: 64.86 dBA



Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 54.36 + 0.00) = 54.36 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -63    | 0      | 0.21  | 73.80  | 0.00  | -13.84 | -4.77 | 0.00  | -0.83 | 0.00  | 54.36  |

-----

Segment Leq : 54.36 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 54.14 + 0.00) = 54.14 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| -66    | 0      | 0.21  | 73.80  | 0.00  | -14.26 | -4.59 | 0.00  | -0.81 | 0.00  | 54.14  |

-----

Segment Leq : 54.14 dBA

Total Leq All Segments: 57.26 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 64.86  
(NIGHT): 57.26

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 16:18:38  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec81.te                      Time Period: Day/Night 16/8 hours  
Description: REC 8-1 - Northern Elevation - 1st Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1    Angle2 : 0.00 deg    65.00 deg  
Wood depth : 0    (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1    (Absorptive ground surface)  
Receiver source distance : 242.00 / 242.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1    (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163    veh/TimePeriod    \*  
Medium truck volume : 4723/411    veh/TimePeriod    \*  
Heavy truck volume : 3373/293    veh/TimePeriod    \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : 0.00 deg 67.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 223.00 / 223.00 m  
 Receiver height : 1.50 / 1.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

Source height = 1.50 m

ROAD (0.00 + 55.46 + 0.00) = 55.46 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.66  | 81.40  | 0.00  | -20.05 | -5.09 | 0.00  | -0.80 | 0.00  | 55.46  |

Segment Leq : 55.46 dBA

↑

Results segment # 2: HWY West (day)

Source height = 1.50 m

ROAD (0.00 + 56.12 + 0.00) = 56.12 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.66  | 81.40  | 0.00  | -19.46 | -5.01 | 0.00  | -0.81 | 0.00  | 56.12  |

Segment Leq : 56.12 dBA

Total Leq All Segments: 58.81 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 47.86 + 0.00) = 47.86 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.66  | 73.80  | 0.00  | -20.05 | -5.09 | 0.00  | -0.80 | 0.00  | 47.86  |

Segment Leq : 47.86 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 48.52 + 0.00) = 48.52 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.66  | 73.80  | 0.00  | -19.46 | -5.01 | 0.00  | -0.81 | 0.00  | 48.52  |

Segment Leq : 48.52 dBA

Total Leq All Segments: 51.21 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 58.81  
(NIGHT): 51.21

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 16:19:30  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec83.te                      Time Period: Day/Night 16/8 hours  
Description: REC 8-3 - Northern Elevation - 3rd Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : 0.00 deg 65.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 242.00 / 242.00 m  
Receiver height : 7.50 / 7.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : 0.00 deg 67.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 223.00 / 223.00 m  
 Receiver height : 7.50 / 7.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00



Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 57.80 + 0.00) = 57.80 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.48  | 81.40  | 0.00  | -17.88 | -4.92 | 0.00  | -0.80 | 0.00  | 57.80  |

-----

Segment Leq : 57.80 dBA



Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 58.41 + 0.00) = 58.41 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.48  | 81.40  | 0.00  | -17.35 | -4.82 | 0.00  | -0.81 | 0.00  | 58.41  |

-----

Segment Leq : 58.41 dBA

Total Leq All Segments: 61.13 dBA



Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 50.20 + 0.00) = 50.20 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.48  | 73.80  | 0.00  | -17.88 | -4.92 | 0.00  | -0.80 | 0.00  | 50.20  |

Segment Leq : 50.20 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 50.81 + 0.00) = 50.81 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.48  | 73.80  | 0.00  | -17.35 | -4.82 | 0.00  | -0.81 | 0.00  | 50.81  |

Segment Leq : 50.81 dBA

Total Leq All Segments: 53.53 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 61.13  
(NIGHT): 53.53

↑

↑

STAMSON 5.0                      NORMAL REPORT                      Date: 07-05-2025 16:21:10  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec86.te                      Time Period: Day/Night 16/8 hours  
Description: REC 8-6 - Northern Elevation - 6th Floor

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : 0.00 deg 65.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 242.00 / 242.00 m  
Receiver height : 16.50 / 16.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

▲

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : 0.00 deg 67.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 223.00 / 223.00 m  
 Receiver height : 16.50 / 16.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00



Results segment # 1: HWY East (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 61.33 + 0.00) = 61.33 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.21  | 81.40  | 0.00  | -14.62 | -4.65 | 0.00  | -0.80 | 0.00  | 61.33  |

-----

Segment Leq : 61.33 dBA



Results segment # 2: HWY West (day)

-----  
 Source height = 1.50 m

ROAD (0.00 + 61.86 + 0.00) = 61.86 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.21  | 81.40  | 0.00  | -14.19 | -4.53 | 0.00  | -0.81 | 0.00  | 61.86  |

-----

Segment Leq : 61.86 dBA

Total Leq All Segments: 64.61 dBA



Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 53.74 + 0.00) = 53.74 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 65     | 0.21  | 73.80  | 0.00  | -14.62 | -4.65 | 0.00  | -0.80 | 0.00  | 53.74  |

Segment Leq : 53.74 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 54.27 + 0.00) = 54.27 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 0      | 67     | 0.21  | 73.80  | 0.00  | -14.19 | -4.53 | 0.00  | -0.81 | 0.00  | 54.27  |

Segment Leq : 54.27 dBA

Total Leq All Segments: 57.02 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 64.61  
(NIGHT): 57.02

↑

↑

Filename: REC9.te                      Time Period: Day/Night 16/8 hours  
Description: REC 9 - Outdoor Living Area

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : -62.00 deg -59.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 224.00 / 224.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00

Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
Angle1 Angle2 : -64.00 deg -62.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 202.00 / 202.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

-----  
Source height = 1.50 m

ROAD (0.00 + 41.28 + 0.00) = 41.28 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj  | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|--------|-------|-------|-------|--------|
| -62    | -59    | 0.66  | 81.40  | 0.00  | -19.49 | -19.81 | 0.00  | -0.81 | 0.00  | 41.28  |

-----

Segment Leq : 41.28 dBA

↑

Results segment # 2: HWY West (day)

-----  
Source height = 1.50 m

ROAD (0.00 + 40.01 + 0.00) = 40.01 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj  | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|--------|-------|-------|-------|--------|
| -64    | -62    | 0.66  | 81.40  | 0.00  | -18.75 | -21.81 | 0.00  | -0.83 | 0.00  | 40.01  |

-----

Segment Leq : 40.01 dBA

Total Leq All Segments: 43.70 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 33.68 + 0.00) = 33.68 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj  | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|--------|-------|-------|-------|--------|
| -62    | -59    | 0.66  | 73.80  | 0.00  | -19.49 | -19.81 | 0.00  | -0.81 | 0.00  | 33.68  |

---



-----

ROAD (0.00, 22.42, 0.00) = 22.42 dBA

|        |        |       |        |       |       |       |       |       |       |        |
|--------|--------|-------|--------|-------|-------|-------|-------|-------|-------|--------|
| Anglo1 | Anglo2 | Alpha | Reflog | D Add | D Add | E Add | W Add | H Add | B Add | Sublog |
|--------|--------|-------|--------|-------|-------|-------|-------|-------|-------|--------|

---

Segment Log : 22 42 dBA

**Total Log All Segments: 26 11 dBA**

T4



STAMSON 5.0            NORMAL REPORT            Date: 04-06-2025 09:08:38  
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec10.te                      Time Period: Day/Night 16/8 hours  
Description: REC 10 - Outdoor Living Area

Road data, segment # 1: HWY East (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332  
Percentage of Annual Growth : 0.00  
Number of Years of Growth : 0.00  
Medium Truck % of Total Volume : 7.00  
Heavy Truck % of Total Volume : 5.00  
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: HWY East (day/night)

-----  
Angle1 Angle2 : 39.00 deg 70.00 deg  
Wood depth : 0 (No woods.)  
No of house rows : 1 / 1  
House density : 20 %  
Surface : 1 (Absorptive ground surface)  
Receiver source distance : 223.00 / 223.00 m  
Receiver height : 1.50 / 1.50 m  
Topography : 1 (Flat/gentle slope; no barrier)  
Reference angle : 0.00

↑

Road data, segment # 2: HWY West (day/night)

-----  
Car traffic volume : 59370/5163 veh/TimePeriod \*  
Medium truck volume : 4723/411 veh/TimePeriod \*  
Heavy truck volume : 3373/293 veh/TimePeriod \*  
Posted speed limit : 100 km/h  
Road gradient : 0 %  
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 73332

Percentage of Annual Growth : 0.00  
 Number of Years of Growth : 0.00  
 Medium Truck % of Total Volume : 7.00  
 Heavy Truck % of Total Volume : 5.00  
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: HWY West (day/night)

-----  
 Angle1 Angle2 : 39.00 deg 72.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 1 / 1  
 House density : 20 %  
 Surface : 1 (Absorptive ground surface)  
 Receiver source distance : 203.00 / 203.00 m  
 Receiver height : 1.50 / 1.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

↑

Results segment # 1: HWY East (day)

Source height = 1.50 m

ROAD (0.00 + 51.87 + 0.00) = 51.87 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 39     | 70     | 0.66  | 81.40  | 0.00  | -19.46 | -9.26 | 0.00  | -0.81 | 0.00  | 51.87  |

Segment Leq : 51.87 dBA

↑

Results segment # 2: HWY West (day)

Source height = 1.50 m

ROAD (0.00 + 52.72 + 0.00) = 52.72 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 39     | 72     | 0.66  | 81.40  | 0.00  | -18.78 | -9.07 | 0.00  | -0.83 | 0.00  | 52.72  |

Segment Leq : 52.72 dBA

Total Leq All Segments: 55.33 dBA

↑

Results segment # 1: HWY East (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 44.27 + 0.00) = 44.27 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 39     | 70     | 0.66  | 73.80  | 0.00  | -19.46 | -9.26 | 0.00  | -0.81 | 0.00  | 44.27  |

-----

Segment Leq : 44.27 dBA

↑

Results segment # 2: HWY West (night)

-----  
Source height = 1.49 m

ROAD (0.00 + 45.12 + 0.00) = 45.12 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj  | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|--------|-------|-------|-------|-------|--------|
| 39     | 72     | 0.66  | 73.80  | 0.00  | -18.78 | -9.07 | 0.00  | -0.83 | 0.00  | 45.12  |

-----

Segment Leq : 45.12 dBA

Total Leq All Segments: 47.73 dBA

↑

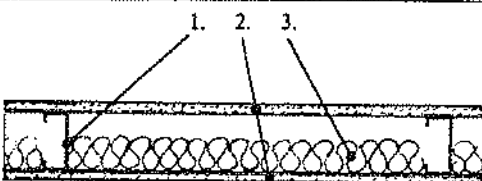
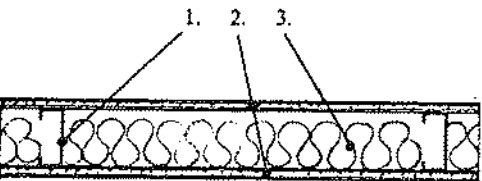
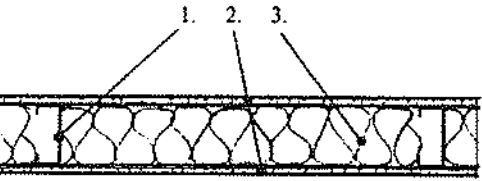
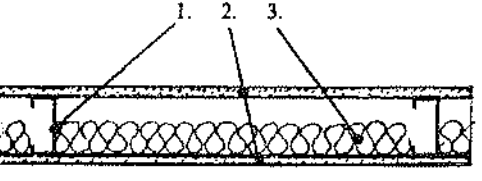
TOTAL Leq FROM ALL SOURCES (DAY): 55.33  
(NIGHT): 47.73

↑

↑

# APPENDIX 3

## INDUSTRY STANDARDS

| Sketch                                                                             | Brief Description                                                                                                                                                                                                             | ... | Laboratory<br>Test Number<br>Year<br>Frequencies Tested<br>Source of Data                                  | STC | Section<br>Number |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------|-----|-------------------|
|    | 1. 3 5/8" metal studs, 24"o.c.<br>2. 5/8" gypsum board screwed to studs.<br>3. 2" thick sound attenuation blanket.                                                                                                            | ... | National Research<br>Council of Canada<br>NRC #66<br>1968<br>16f<br>National Research<br>Council of Canada | 47  | 1.3.3.1.5.7       |
|    | 1. 3 5/8" metal studs, 24"o.c.<br>2. 5/8" type X gypsum board screwed to studs.<br>3. 3" thick sound attenuation blanket.                                                                                                     | ... | Owens/Corning<br>Fiberglas<br>OCF 469<br>1967<br>16f<br>Owens/Corning<br>Fiberglas                         | 44  | 1.3.3.1.5.8       |
|   | 1. 3 5/8" metal studs, 24"o.c.<br>2. 5/8" gypsum board screwed to studs.<br>3. 4" thick sound attenuation blanket<br>compressed to fit in stud space.                                                                         | ... | National Research<br>Council of Canada<br>NRC #66<br>1968<br>16f<br>National Research<br>Council of Canada | 45  | 1.3.3.1.5.9       |
|  | 1. 3 5/8" metal studs, 24"o.c.<br>2. 5/8" type X gypsum board spot-laminated<br>to studs with daubs of adhesive 12"o.c.<br>drywall screws at third points along joints<br>and ends.<br>3. 2" thick sound attenuation blanket. | ... | Riverbank Acoustical<br>Labs.<br>TL66-253<br>1966<br>16f<br>Celotex Corp.                                  | 51  | 1.3.3.1.5.10      |

# Wall & Floor Assembly Guide

## Insulation for Sound & Fire Rated Assemblies

### Sound Transmission Loss of Exterior Doors and Windows

| <i>Door</i>               | <i>Weather Strip</i> | <i>Normally closed STC</i> |
|---------------------------|----------------------|----------------------------|
| Wood, flush solid core(1) | Brass                | <b>27</b>                  |
| Wood, flush solid core(1) | Plastic              | <b>27</b>                  |
| Steel, flush(2)           | Magnetic             | <b>28</b>                  |

### Door Construction Detail

|                                |        |                                                        |
|--------------------------------|--------|--------------------------------------------------------|
| (1) Flush solid core wood door | Width  | 1 -3/4"                                                |
|                                | Weight | 78lb, 3.9 lb/sq ft                                     |
| (2) Flush steel door           | Width  | 1 -3/4"                                                |
|                                | Faces  | 0.028" steel, separated by plastic perimeter strip     |
|                                | Core   | Rigid polyurethane, 2 2-1/2" lb/cu.ft, foamed in place |
|                                | Weight | 64lb, 3.2 lb/sq ft                                     |

### Sound Transmission Loss of Windows

| <i>Material</i> | <i>Type</i>                      | <i>Size</i> | <i>Glazing'</i>   | <i>Sealed STC</i> | <i>Locked STC</i> | <i>Unlocked STC</i> |
|-----------------|----------------------------------|-------------|-------------------|-------------------|-------------------|---------------------|
| Wood            | Double hung                      | 3'x5'       | ss                | <b>29</b>         |                   | <b>23</b>           |
|                 |                                  |             | ss-d              | <b>29</b>         |                   |                     |
|                 |                                  |             | ds                | <b>29</b>         |                   |                     |
|                 |                                  |             | ds-d              | <b>30</b>         |                   |                     |
|                 | Fixed picture                    | 6'x5'       | ln-7/16"          | <b>28</b>         | <b>26</b>         | <b>22</b>           |
|                 |                                  |             | ss-d              | <b>28</b>         |                   |                     |
|                 |                                  |             | ds                | <b>29</b>         |                   |                     |
|                 |                                  |             | in-1"             | <b>34</b>         | <b>STC</b>        | <b>STC</b>          |
| Wood-plastic    | Double hung                      |             | ss                | <b>29</b>         | <b>26</b>         | <b>26</b>           |
|                 |                                  |             | in-3/8"           | <b>26</b>         | <b>26</b>         | <b>25</b>           |
|                 | Storm sash                       |             | ds                | <b>30</b>         | <b>27</b>         |                     |
|                 |                                  |             | in-3/8"           | <b>28</b>         | <b>24</b>         |                     |
|                 | Fixed casement                   |             | ds                | <b>31</b>         |                   |                     |
|                 |                                  |             | Operable casement |                   | <b>30</b>         | <b>22</b>           |
| Aluminum        | Sliding glass door               |             | lam-3/16"         | <b>31</b>         | <b>26</b>         | <b>26</b>           |
|                 | Sliding                          |             | ss                | <b>28</b>         | <b>24</b>         |                     |
|                 | Operable casement                |             | ds                | <b>31</b>         | <b>21</b>         | <b>17</b>           |
|                 | Single hung                      |             | in-7/16"          | <b>30</b>         | <b>27</b>         | <b>25</b>           |
|                 | Single pane 1/4" laminated glass |             |                   |                   |                   | <b>34</b>           |

|     |   |                                                       |
|-----|---|-------------------------------------------------------|
| 'ss | = | single strength                                       |
| ds  | = | double strength                                       |
| d   | = | divided lights                                        |
| in  | = | insulating glass of indicated overall thickness       |
| lam | = | laminated safety glass of indicated overall thickness |

Taken from the U.S. Department of Commerce National Bureau of Standards Building Science Series 77.

\* Information received in imperial units only