

**TRANSPORTATION NOISE
STUDY**

131, 139 Parkdale Avenue and
122 Forward Avenue
Ottawa, Ontario

Report: 25-205 – Transportation Noise



February 18, 2026

PREPARED FOR

11034936 Canada Inc. c/o Brigil

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PREPARED BY

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EXECUTIVE SUMMARY

This report describes a transportation noise assessment undertaken to support Zoning By-Law Amendment (ZBLA) and Site Plan Control (SPC) applications for the proposed development located at 131, 139 Parkdale Avenue and 122 Forward Avenue in Ottawa, Ontario. The proposed development comprises two rectangular buildings topped with a mechanical penthouse: Building A (40 storeys) to the west and Building B (6 storeys) at the northeast corner of the subject site. The dominant source of roadway traffic noise impacting the development is Parkdale Avenue located directly west of the subject site. Figure 1 illustrates a site plan with surrounding context.

The assessment is based on (i) theoretical noise prediction methods that conform to the Ministry of the Environment, Conservation and Parks (MECP), and City of Ottawa requirements; (ii) noise level criteria as specified by the City of Ottawa's Environmental Noise Control Guidelines (ENCG); (iii) future vehicular traffic volumes based on the City of Ottawa's Official Plan roadway classifications; and (iv) architectural drawings provided by Perkins&Will in November 2025.

The results of the current analysis indicate that noise levels will range between 50 and 67 dBA during the daytime period (07:00-23:00) and between 46 and 59 dBA during the nighttime period (23:00-07:00). The highest noise level (i.e. 67 dBA) occurs along the west façade of Building A which is nearest and most exposed to Parkdale Avenue.

The noise levels on Building A predicted due to roadway traffic exceed the criteria listed in Section 4.2 for building components. Upgraded building components, including STC rated glazing elements and exterior walls, will be required where noise levels exceed 65 dBA, as discussed in Section 4.2.1. Noise control requirements are specified in Section 5.2 and Figures 3-4. Results of the calculations also indicate that the development will require air conditioning, which will allow occupants to keep windows closed and maintain a comfortable living environment. In addition to ventilation requirements, a Type D Warning Clause will also be required to be placed on all Lease, Purchase and Sale Agreements, as summarized in Section 6 of this report.

The noise levels on Building B fall below 55 dBA during the daytime. As such, noise control measures and Warning Clauses are not required.



Noise levels at all outdoor amenities on Level 6 are expected to fall below 55 dBA during the daytime period. As such, additional noise control measures are not required.

A review of satellite imagery confirmed there are potential minor sources of stationary noise at the adjacent high-rise buildings. Given the separation distance between the towers of more than 40 m anticipated stationary noise impacts are expected to comply with the ENCG.

The development's own mechanical equipment has the potential to generate noise off-site at surrounding noise sensitive (residential) developments and on the development itself. Any potential impacts can be minimized by judicious selection of mechanical equipment and its location. It is preferable to locate large pieces of equipment, such as cooling towers and make up air units, on the roof of the towers or in mechanical penthouses. These systems will be designed to comply with the ENCG sound level limits. A review by a qualified acoustic consultant is recommended once the mechanical design of the building has developed.

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1. INTRODUCTION

Gradient Wind Engineering Inc. (Gradient Wind) was retained by 11034936 Canada Inc. c/o Brigil to undertake a transportation noise assessment to support Zoning By-Law Amendment (ZBLA) and Site Plan Control (SPC) applications for a proposed development located at 131, 139 Parkdale Avenue and 122 Forward Avenue in Ottawa, Ontario. This report summarizes the methodology, results, and recommendations related to the assessment of exterior and interior noise levels generated by local roadway traffic.

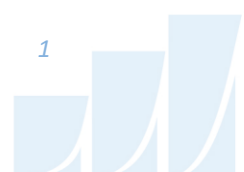
This assessment is based on theoretical noise calculation methods conforming to the Ministry of the Environment, Conservation and Parks (MECP) NPC-300¹ and City of Ottawa Environmental Noise Control Guidelines (ENCG)² guidelines. Noise calculations were based on architectural drawings provided by Perkins&Will, received in November 2025, with future traffic volumes corresponding to the City of Ottawa's Official Plan (OP) roadway classifications.

2. TERMS OF REFERENCE

The subject site is located at 131, 139 Parkdale Avenue and 122 Forward Avenue in Ottawa, situated on a parcel of land bounded by Parkdale Avenue to the west, Burnside Avenue to the north, Forward Avenue to the east, low-rise dwellings to the southeast and a mid-rise building to the southwest. The proposed development comprises two rectangular buildings topped with a mechanical penthouse: Building A (40 storeys) to the west and Building B (6 storeys) at the northeast corner of the subject site. Outdoor green space is located to the south of Building B. The buildings share underground parking levels, which are accessed by a parking ramp at the southeast corner of Building A, via a central north-south drive aisle extending from Burnside Avenue between Buildings A and B. Temporary surface parking is provided to the west of Building B.

¹ Ontario Ministry of the Environment and Climate Change – Environmental Noise Guidelines, Publication NPC-300, Queens Printer for Ontario, Toronto, 2013

² City of Ottawa, Environmental Noise Control Guidelines, January 2016



The ground floor of Building A comprises retail space at the southwest corner and to the west, a commercial lobby and a mail room to the west, a commercial space to the northwest, and a residential lobby and shared building support spaces to the east, while the ground floor of Building B comprises a residential lobby to the west, a retail space at the northwest corner, a commercial space at the northeast corner, residential units to the east, and building support spaces throughout the remainder of the floor. Levels 2-5 are reserved for residential use in both buildings. At Level 6, Buildings A and B are programmed for amenity space with terraces located within step-backs from the north elevation of each building. An additional amenity terrace is programmed within a step-back from the south elevation with full-height walls around the terrace perimeter. The buildings are connected by a central bridge at this level. Building A extends from the north elevation at Level 7 to overhang the amenity terrace below and rises with a rectangular planform from Levels 7-40, which are reserved for residential occupancy.

The near-field surroundings (defined as an area within 200 metres (m) of the subject site) comprise a mix of low-, mid-, and high-rise buildings to the north and south, low-rise buildings from the northeast clockwise to the southeast, and a mid-rise government office building to the southwest with surface parking lots and green space to the south-southwest and from the west clockwise to the north-northwest. Notably, a 4-storey residential development is approved at 138 Forward Avenue, to the immediate east of the proposed development. The far-field surroundings (defined as an area beyond the near-field but within a 2-kilometre (km) radius of the subject site) are characterized by low-rise massing with isolated mid- and high-rise buildings from the east-northeast clockwise to the west-southwest, and the Ottawa River Valley in the remaining directions. The Ottawa River flows from the west to the northeast, approximately 400 m to the north.

The relevant source of roadway traffic noise is Parkdale Avenue located directly west of the subject site. Figure 1 illustrates a site plan with surrounding context.

3. OBJECTIVES

The principal objectives of this study are to (i) calculate the future noise levels on the study building produced by local roadway traffic, and (ii) ensure that interior and exterior noise levels do not exceed the allowable limits specified by the City of Ottawa's Environmental Noise Control Guidelines as outlined in Section 4.2 of this report.



4. METHODOLOGY

4.1 Background

Noise can be defined as any obtrusive sound. It is created at a source, transmitted through a medium, such as air, and intercepted by a receiver. Noise may be characterized in terms of the power of the source or the sound pressure at a specific distance. While the power of a source is characteristic of that particular source, the sound pressure depends on the location of the receiver and the path that the noise takes to reach the receiver. Measurement of noise is based on the decibel unit, dBA, which is a logarithmic ratio referenced to a standard noise level (2×10^{-5} Pascals). The 'A' suffix refers to a weighting scale, which better represents how the noise is perceived by the human ear. With this scale, a doubling of power results in a 3 dBA increase in measured noise levels and is just perceptible to most people. An increase of 10 dBA is often perceived to be twice as loud.

4.2 Roadway Traffic Noise

4.2.1 Criteria for Roadway Traffic Noise

For surface roadway traffic noise, the equivalent sound energy level, L_{eq} , provides a measure of the time-varying noise levels, which is well correlated with the annoyance of sound. It is defined as the continuous sound level, which has the same energy as a time-varying noise level over a period of time. For roadways, the L_{eq} is commonly calculated on the basis of a 16-hour (L_{eq16}) daytime (07:00-23:00) / 8-hour (L_{eq8}) nighttime (23:00-07:00) split to assess its impact on residential buildings. The City of Ottawa's Environmental Noise Control Guidelines (ENCG) specify that the recommended indoor noise limit range (that is relevant to this study) is 50, 45, and 40 dBA for retail space, living rooms and sleeping quarters respectively, as listed in Table 1.

TABLE 1: INDOOR SOUND LEVEL CRITERIA (ROAD)³

Type of Space	Time Period	L _{eq} (dBA)
General offices, reception areas, retail stores , etc.	07:00 – 23:00	50
Living/dining/den areas of residences , hospitals, schools, nursing/retirement homes, day-care centres, theatres, places of worship, libraries, individual or semi-private offices, conference rooms, etc.	07:00 – 23:00	45
Sleeping quarters of hotels/motels	23:00 – 07:00	45
Sleeping quarters of residences , hospitals, nursing/retirement homes, etc.	23:00 – 07:00	40

Predicted noise levels at the plane of window (POW) dictate the action required to achieve the recommended sound levels. An open window is considered to provide a 10 dBA reduction in noise, while a standard closed window is capable of providing a minimum 20 dBA noise reduction⁴. A closed window due to a ventilation requirement will bring noise levels down to achieve an acceptable indoor environment⁵. Therefore, where noise levels exceed 55 dBA daytime and 50 dBA nighttime, the ventilation for the building should consider the need for having windows and doors closed, which triggers the need for forced air heating with provision for central air conditioning. Where noise levels exceed 65 dBA daytime and 60 dBA nighttime, air conditioning will be required and building components will require higher levels of sound attenuation⁶.

For designated Outdoor Living Areas (OLAs), the sound level limit is 55 dBA during the daytime period. An excess above the limit is acceptable only in cases where the required noise control measures are not feasible for technical, economic or administrative reasons.

³ Adapted from ENCG 2016 – Tables 2.2b and 2.2c

⁴ Burberry, P.B. (2014). Mitchell’s Environment and Services. Routledge, Page 125

⁵ MECP, Environmental Noise Guidelines, NPC 300 – Part C, Section 7.8

⁶ MECP, Environmental Noise Guidelines, NPC 300 – Part C, Section 7.1.3

4.2.2 Roadway Traffic Volumes

The ENCG dictates that noise calculations should consider future sound levels based on a roadway’s classification at the mature state of development. Therefore, traffic volumes are based on the roadway classifications outlined in the City of Ottawa’s Official Plan (OP) and Transportation Master Plan⁷ which provide additional details on future roadway expansions. Average Annual Daily Traffic (AADT) volumes are then based on data in Table B1 of the ENCG for each roadway classification. Table 2 (below) summarizes the AADT values used for each roadway included in this assessment.

TABLE 2: ROADWAY TRAFFIC DATA

Segment	Roadway Traffic Classification	Speed Limit (km/h)	Traffic Volumes
Parkdale Avenue	2-Lane Urban Arterial (2-UAU)	40	15,000

4.2.3 Theoretical Roadway Traffic Noise Predictions

Noise predictions were performed with the aid of the MECP computerized noise assessment program, STAMSON 5.04, for road analysis. Appendix A includes the STAMSON 5.04 input and output data.

Roadway traffic noise calculations were performed by treating each roadway segment as separate line sources of noise, and by using existing building locations as noise barriers. In addition to the traffic volumes summarized in Table 2, theoretical noise predictions were based on the following parameters:

- Truck traffic on all roadways was taken to comprise 5% heavy trucks and 7% medium trucks, as per ENCG requirements for noise level predictions.
- The day/night split for all streets was taken to be 92%/8%, respectively.
- Ground surfaces for receptors were taken to be reflective due to the presence of hard (paved) ground.
- Topography was assumed to be a gentle slope surrounding the study building.
- Noise receptors were strategically placed at 10 locations around the study area (see Figure 2).

⁷ City of Ottawa Transportation Master Plan, November 2013

4.3 Indoor Noise Calculations

The difference between outdoor and indoor noise levels is the noise attenuation provided by the building envelope. According to common industry practice, complete walls and individual wall elements are rated according to the Sound Transmission Class (STC). The STC ratings of common residential walls built in conformance with the Ontario Building Code (2024) typically exceed STC 35, depending on exterior cladding, thickness and interior finish details. For example, brick veneer walls can achieve STC 50 or more. Standard commercially sided exterior metal stud walls have around STC 45. Standard good quality double-glazed non-operable windows can have STC ratings ranging from 25 to 40, depending on the window manufacturer, pane thickness and inter-pane spacing. As previously mentioned, the windows are the known weak point in a partition.

As per Section 4.2, when daytime noise levels from road sources at the plane of the window exceed 65 dBA, calculations must be performed to evaluate the sound transmission quality of the building components to ensure acceptable indoor noise levels. The calculation procedure⁸ considers:

- Window type and total area as a percentage of total room floor area
- Exterior wall type and total area as a percentage of the total room floor area
- Acoustic absorption characteristics of the room
- Outdoor noise source type and approach geometry
- Indoor sound level criteria, which varies according to the intended use of a space

Based on published research⁹, exterior walls possess specific sound attenuation characteristics that are used as a basis for calculating the required STC ratings of windows in the same partition. Due to the limited information available at the time of the study, which was prepared for ZBLA and SPC applications, detailed floor layouts and building elevations have not been finalized; therefore, detailed STC calculations could not be performed at this time. As a guideline, the anticipated STC requirements for windows have been estimated based on the overall noise reduction required for each intended use of space (STC = outdoor noise level – targeted indoor noise levels + safety factor).

⁸ Building Practice Note: Controlling Sound Transmission into Buildings by J.D. Quirt, National Research Council of Canada, September 1985

⁹ CMHC, Road & Rail Noise: Effects on Housing



5. RESULTS

5.1 Roadway Traffic Noise Levels

The results of the roadway traffic noise calculations are summarized in Table 3 below. The results of the current analysis indicate that noise levels will range between 50 and 67 dBA during the daytime period (07:00-23:00) and between 46 and 59 dBA during the nighttime period (23:00-07:00). The highest noise level (i.e. 67 dBA) occurs along the west façade of Building A which is nearest and most exposed to Parkdale Avenue.

The noise levels on Building A predicted due to roadway traffic exceed the criteria listed in Section 4.2 for building components. Upgraded building components, including STC rated glazing elements and exterior walls, will be required where noise levels exceed 65 dBA, as discussed in Section 4.2.1. Noise control requirements are specified in Section 5.2 and Figures 3-4. Results of the calculations also indicate that the development will require air conditioning, which will allow occupants to keep windows closed and maintain a comfortable living environment. In addition to ventilation requirements, a Type D Warning Clause will also be required to be placed on all Lease, Purchase and Sale Agreements, as summarized in Section 6 of this report.

The noise levels on Building B fall below 55 dBA during the daytime. As such, noise control measures and Warning Clauses are not required.

Noise levels at all outdoor amenities on Level 6 are expected to fall below 55 dBA during the daytime period. As such, additional noise control measures are not required.

TABLE 3: EXTERIOR NOISE LEVELS DUE TO ROADWAY TRAFFIC

Receptor Number / Type	Receptor Height Above Grade (m)	Receptor Location	STAMSON 5.04 Noise Level (dBA)	
			Day	Night
R1 / POW	14.5	Building A – Level 5 – South Façade	63	56
R2 / POW	14.5	Building A – Level 5 – West Façade	67	59
R3 / POW	14.5	Building A – Level 5 – North Façade	63	55
R4 / POW	14.5	Building B – Level 5 – North Façade	54	46
R5 / POW	120.1	Building A – Level 39 – South Façade	62	55
R6 / POW	120.1	Building A – Level 39 – West Façade	66	59
R7 / POW	123.1	Building A – Level 40 – North Façade	62	55
R8 / OLA	17.3	Building A – Level 6 – South Outdoor Amenity	50	N/A*
R9 / OLA	17.3	Building A – Level 6 – North Outdoor Amenity	53	N/A*
R10 / OLA	17.3	Building B – Level 6 – North Outdoor Amenity	51	N/A*

*Noise levels during the nighttime are not considered for OLAs

5.2 Noise Control Measures

The noise levels predicted due to roadway traffic exceed the criteria listed in Section 4.2 for building components. As discussed in Section 4.3, the anticipated STC requirements for windows have been estimated based on the overall noise reduction required for each intended use of space (STC = outdoor noise level – targeted indoor noise levels + safety factor). Figure 3 outlines the required bedroom and living room window STC's for all facades of the development. The STC requirements are summarized below for various units within the development:

- **Bedroom Windows**

- (i) Bedroom windows on Building A facing west will require a minimum STC of 30.
- (ii) All other bedroom windows are to satisfy Ontario Building Code (OBC 2024) requirements.

- **Living Room Windows**

- (i) Living room windows on Building A facing west will require a minimum STC of 30.
- (ii) All other living room windows are to satisfy Ontario Building Code (OBC 2024) requirements.

- **Retail Windows**

- (i) Retail windows on Building A facing west will require a minimum STC of 25.
- (ii) All other retail windows are to satisfy Ontario Building Code (OBC 2024) requirements.

- **Exterior Walls**

- (i) Exterior wall components on the west façade of Building A will require a minimum STC of 45, which will be achieved with brick cladding or an acoustical equivalent according to NRC test data¹⁰.

The STC requirements apply to windows, doors, spandrel panels and curtainwall elements. Exterior wall components on these façades are recommended to have a minimum STC of 45, where a stud wall system is used. A review of window supplier literature indicates that the specified STC ratings can be achieved by a variety of window systems having a combination of glass thickness and inter-pane spacing. We have specified an example window configuration, however several manufacturers and various combinations of window components, such as those proposed, will offer the necessary sound attenuation rating. It is the

¹⁰ J.S. Bradley and J.A. Birta. Laboratory Measurements of the Sound Insulation of Building Façade Elements, National Research Council October 2000.



responsibility of the manufacturer to ensure that the specified window achieves the required STC. This can only be assured by using window configurations that have been certified by laboratory testing. The requirements for STC ratings assume that the remaining components of the building are constructed and installed according to the minimum standards of the Ontario Building Code. The specified STC requirements also apply to swinging and/or sliding patio doors.

Results of the calculations also indicate that the development will require central air conditioning, which will allow occupants to keep windows closed and maintain a comfortable living environment. In addition to ventilation requirements, Warning Clauses will also be required on all Lease, Purchase and Sale Agreements, as summarized in Section 6.

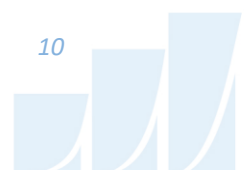
6. CONCLUSIONS AND RECOMMENDATIONS

The results of the current analysis indicate that noise levels will range between 50 and 67 dBA during the daytime period (07:00-23:00) and between 46 and 59 dBA during the nighttime period (23:00-07:00). The highest noise level (i.e. 67 dBA) occurs along the west façade of Building A which is nearest and most exposed to Parkdale Avenue.

The noise levels on Building A predicted due to roadway traffic exceed the criteria listed in Section 4.2 for building components. Upgraded building components, including STC rated glazing elements and exterior walls, will be required where noise levels exceed 65 dBA, as discussed in Section 4.2.1. Noise control requirements are specified in Section 5.2 and Figures 3-4. Results of the calculations also indicate that the development will require air conditioning, which will allow occupants to keep windows closed and maintain a comfortable living environment. In addition to ventilation requirements, a Type D Warning Clause will also be required to be placed on all Lease, Purchase and Sale Agreements, as summarized below.

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."



The noise levels on Building B fall below 55 dBA during the daytime. As such, noise control measures and Warning Clauses are not required.

Noise levels at all outdoor amenities on Level 6 are expected to fall below 55 dBA during the daytime period. As such, additional noise control measures are not required.

A review of satellite imagery confirmed there are potential minor sources of stationary noise at the adjacent high-rise buildings. Given the separation distance between the towers of more than 40 m anticipated stationary noise impacts are expected to comply with the ENCG.

The development's own mechanical equipment has the potential to generate noise off-site at surrounding noise sensitive (residential) developments and on the development itself. Any potential impacts can be minimized by judicious selection of mechanical equipment and its location. It is preferable to locate large pieces of equipment, such as cooling towers and make up air units, on the roof of the towers or in mechanical penthouses. These systems will be designed to comply with the ENCG sound level limits. A review by a qualified acoustic consultant is recommended once the mechanical design of the building has developed.

This concludes our transportation noise assessment and report. If you have any questions or wish to discuss our findings, please advise us. In the interim, we thank you for the opportunity to be of service.

Sincerely,

Gradient Wind Engineering Inc.



Doryan Saavedra, B.Eng.
Junior Acoustic Scientist

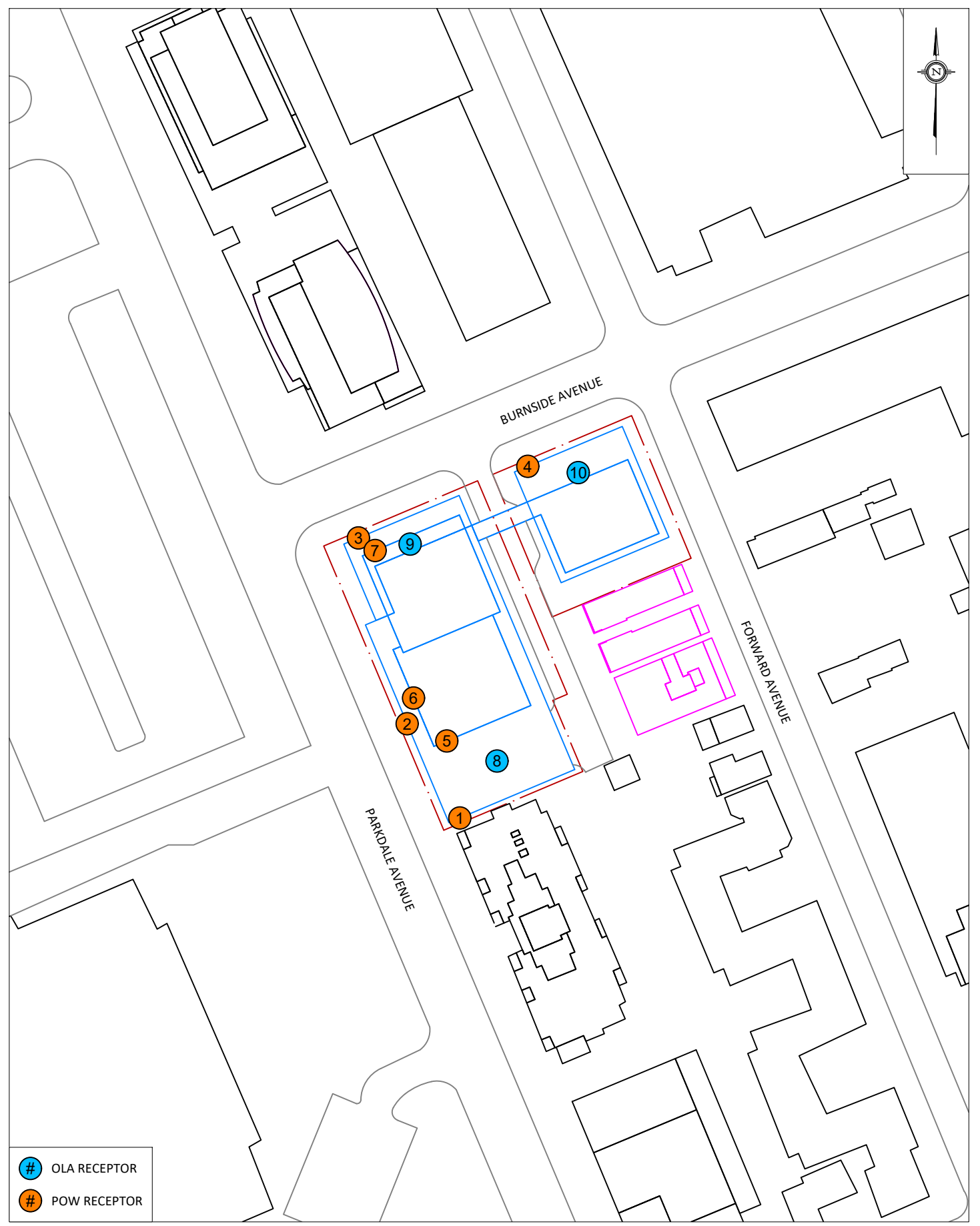


Joshua Foster, P.Eng.
Lead Engineer

Gradient Wind File #25-205 – Transportation Noise

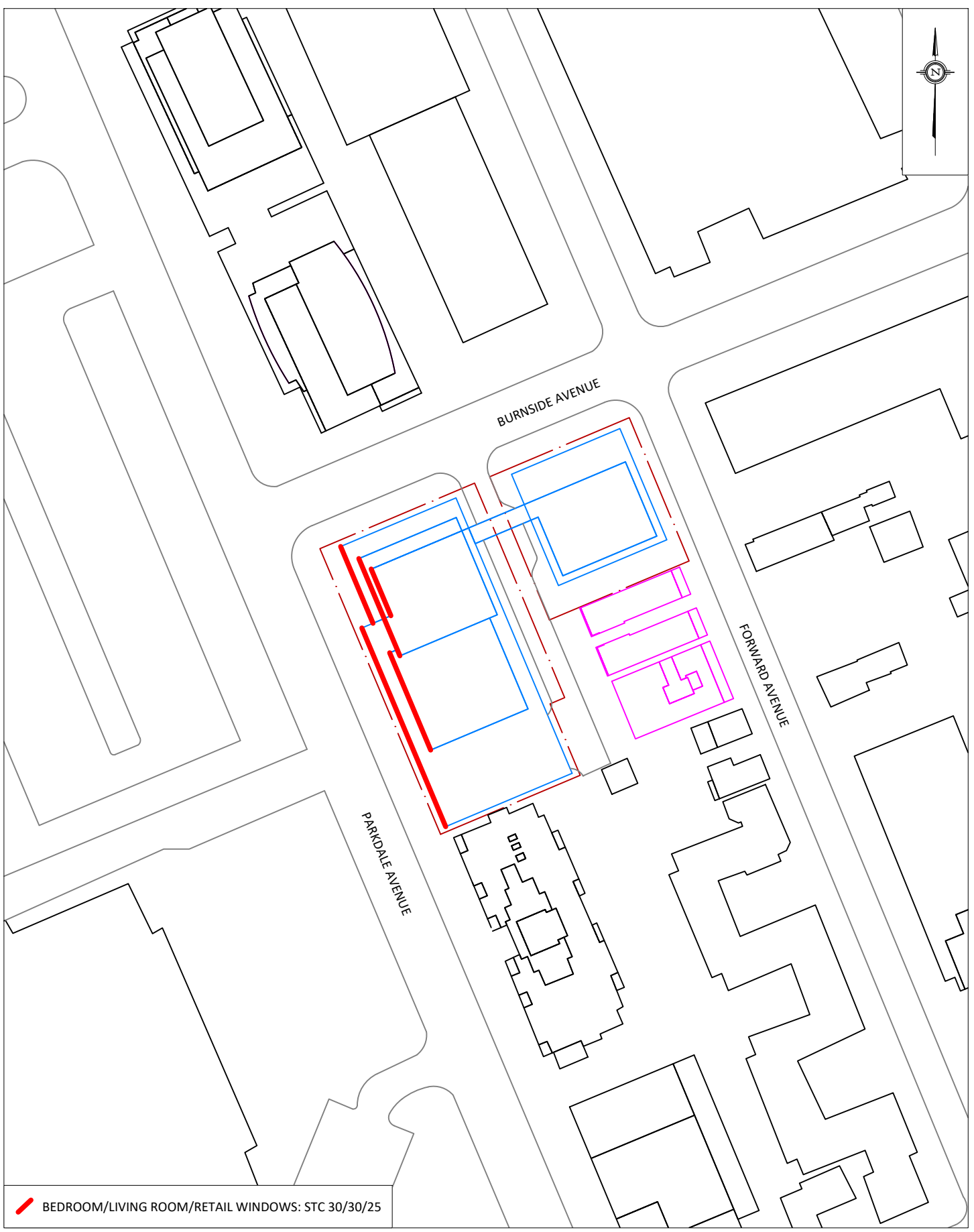






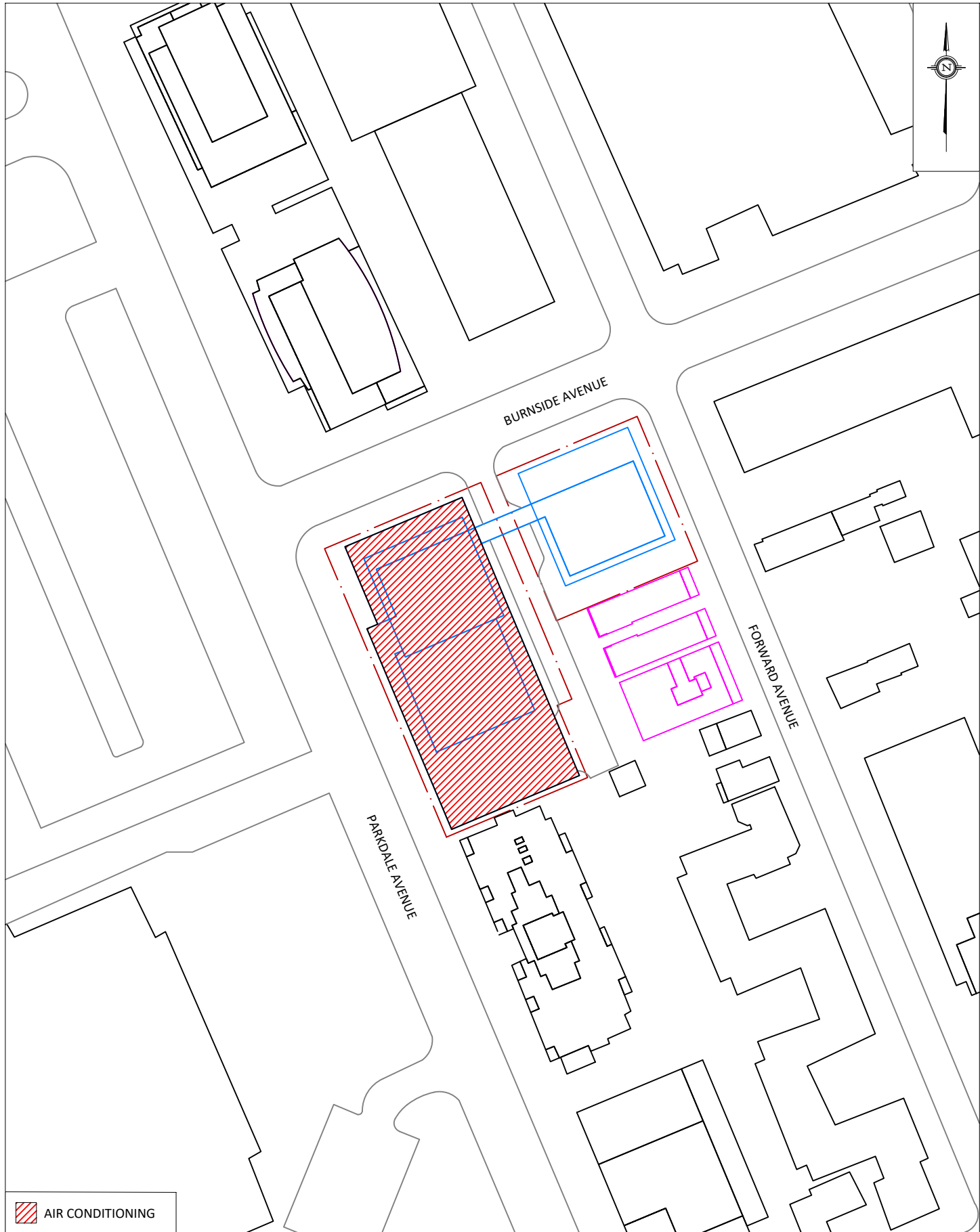
- OLA RECEPTOR
- POW RECEPTOR

PROJECT	131, 139 PARKDALE AVENUE AND 122 FORWARD AVENUE, OTTAWA TRANSPORTATION NOISE ASSESSMENT	
SCALE	1:1000	DRAWING NO. 25-205-2
DATE	DECEMBER 2, 2025	DRAWN BY T.K.



 BEDROOM/LIVING ROOM/RETAIL WINDOWS: STC 30/30/25

PROJECT	131, 139 PARKDALE AVENUE AND 122 FORWARD AVENUE, OTTAWA TRANSPORTATION NOISE ASSESSMENT	
SCALE	1:1000	DRAWING NO. 25-205-3
DATE	DECEMBER 2, 2025	DRAWN BY T.K.



 AIR CONDITIONING

PROJECT	131, 139 PARKDALE AVENUE AND 122 FORWARD AVENUE, OTTAWA TRANSPORTATION NOISE ASSESSMENT	
SCALE	1:1000	DRAWING NO. 25-205-4
DATE	DECEMBER 2, 2025	DRAWN BY T.K.

DESCRIPTION
**FIGURE 4:
VENTILATION REQUIREMENTS**

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APPENDIX A

STAMSON 5.04 – INPUT AND OUTPUT DATA

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STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 11:23:48
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r1.te Time Period: Day/Night 16/8 hours
Description: POW - Level 5 South Facade

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 16.00 / 16.00 m
Receiver height : 14.50 / 14.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00



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Results segment # 1: Parkdale (day)

Source height = 1.50 m

ROAD (0.00 + 63.40 + 0.00) = 63.40 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	66.69	0.00	-0.28	-3.01	0.00	0.00	0.00	63.40

Segment Leq : 63.40 dBA

Total Leq All Segments: 63.40 dBA

Results segment # 1: Parkdale (night)

Source height = 1.50 m

ROAD (0.00 + 55.80 + 0.00) = 55.80 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	59.09	0.00	-0.28	-3.01	0.00	0.00	0.00	55.80

Segment Leq : 55.80 dBA

Total Leq All Segments: 55.80 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 63.40
(NIGHT): 55.80



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STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 11:25:20
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r2.te Time Period: Day/Night 16/8 hours
Description: POW - Level 5 West Facade

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 14.50 / 14.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00



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Results segment # 1: Parkdale (day)

Source height = 1.50 m

ROAD (0.00 + 66.69 + 0.00) = 66.69 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.69	0.00	0.00	0.00	0.00	0.00	0.00	66.69

Segment Leq : 66.69 dBA

Total Leq All Segments: 66.69 dBA

Results segment # 1: Parkdale (night)

Source height = 1.50 m

ROAD (0.00 + 59.09 + 0.00) = 59.09 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	59.09	0.00	0.00	0.00	0.00	0.00	0.00	59.09

Segment Leq : 59.09 dBA

Total Leq All Segments: 59.09 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 66.69
(NIGHT): 59.09



GRADIENTWIND

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STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 11:26:02
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r3.te Time Period: Day/Night 16/8 hours
Description: POW - Level 5 North Facade

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 19.00 / 19.00 m
Receiver height : 14.50 / 14.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00



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Results segment # 1: Parkdale (day)

Source height = 1.50 m

ROAD (0.00 + 62.65 + 0.00) = 62.65 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	66.69	0.00	-1.03	-3.01	0.00	0.00	0.00	62.65

Segment Leq : 62.65 dBA

Total Leq All Segments: 62.65 dBA

Results segment # 1: Parkdale (night)

Source height = 1.50 m

ROAD (0.00 + 55.05 + 0.00) = 55.05 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	59.09	0.00	-1.03	-3.01	0.00	0.00	0.00	55.05

Segment Leq : 55.05 dBA

Total Leq All Segments: 55.05 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.65
(NIGHT): 55.05



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STAMSON 5.0 NORMAL REPORT Date: 10-12-2025 15:56:47
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r4.te Time Period: Day/Night 16/8 hours
Description: POW - Level 5 North Facade

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 56.00 / 56.00 m
Receiver height : 14.50 / 14.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 34.00 deg Angle2 : 90.00 deg
Barrier height : 102.00 m
Barrier receiver distance : 33.00 / 33.00 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00



GRADIENTWIND

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Results segment # 1: Parkdale (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	14.50	6.84	6.84

ROAD (53.73 + 36.05 + 0.00) = 53.80 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	34	0.00	66.69	0.00	-5.72	-7.24	0.00	0.00	0.00	53.73
34	90	0.00	66.69	0.00	-5.72	-5.07	0.00	0.00	-19.84	36.05

Segment Leq : 53.80 dBA

Total Leq All Segments: 53.80 dBA

Results segment # 1: Parkdale (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	14.50	6.84	6.84

ROAD (46.13 + 28.45 + 0.00) = 46.20 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	34	0.00	59.09	0.00	-5.72	-7.24	0.00	0.00	0.00	46.13
34	90	0.00	59.09	0.00	-5.72	-5.07	0.00	0.00	-19.84	28.45

Segment Leq : 46.20 dBA

Total Leq All Segments: 46.20 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 53.80
(NIGHT): 46.20



GRADIENTWIND

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STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 11:33:36
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r5.te Time Period: Day/Night 16/8 hours
Description: POW - Level 39 South Facade

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 20.00 / 20.00 m
Receiver height : 120.10 / 120.10 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00



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Results segment # 1: Parkdale (day)

Source height = 1.50 m

ROAD (0.00 + 62.43 + 0.00) = 62.43 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	66.69	0.00	-1.25	-3.01	0.00	0.00	0.00	62.43

Segment Leq : 62.43 dBA

Total Leq All Segments: 62.43 dBA

Results segment # 1: Parkdale (night)

Source height = 1.50 m

ROAD (0.00 + 54.83 + 0.00) = 54.83 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	59.09	0.00	-1.25	-3.01	0.00	0.00	0.00	54.83

Segment Leq : 54.83 dBA

Total Leq All Segments: 54.83 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.43
(NIGHT): 54.83



GRADIENTWIND

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STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 11:34:18
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r6.te Time Period: Day/Night 16/8 hours
Description: POW - Level 39 West Facade

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 17.00 / 17.00 m
Receiver height : 120.10 / 120.10 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00



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Results segment # 1: Parkdale (day)

Source height = 1.50 m

ROAD (0.00 + 66.14 + 0.00) = 66.14 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.69	0.00	-0.54	0.00	0.00	0.00	0.00	66.14

Segment Leq : 66.14 dBA

Total Leq All Segments: 66.14 dBA

Results segment # 1: Parkdale (night)

Source height = 1.50 m

ROAD (0.00 + 58.55 + 0.00) = 58.55 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	59.09	0.00	-0.54	0.00	0.00	0.00	0.00	58.55

Segment Leq : 58.55 dBA

Total Leq All Segments: 58.55 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 66.14
(NIGHT): 58.55



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STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 11:35:12
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r7.te Time Period: Day/Night 16/8 hours
Description: POW - Level 40 North Facade

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 21.00 / 21.00 m
Receiver height : 123.10 / 123.10 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00



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Results segment # 1: Parkdale (day)

Source height = 1.50 m

ROAD (0.00 + 62.21 + 0.00) = 62.21 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	66.69	0.00	-1.46	-3.01	0.00	0.00	0.00	62.21

Segment Leq : 62.21 dBA

Total Leq All Segments: 62.21 dBA

Results segment # 1: Parkdale (night)

Source height = 1.50 m

ROAD (0.00 + 54.62 + 0.00) = 54.62 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	59.09	0.00	-1.46	-3.01	0.00	0.00	0.00	54.62

Segment Leq : 54.62 dBA

Total Leq All Segments: 54.62 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.21
(NIGHT): 54.62



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STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 11:43:02
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r8.te Time Period: Day/Night 16/8 hours
Description: OLA - Level 6 South

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

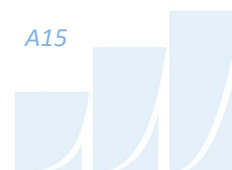
Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 15000
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: Parkdale 1 (day/night)

Angle1 Angle2 : -90.00 deg 36.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 27.00 / 27.00 m
Receiver height : 17.30 / 17.30 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 36.00 deg
Barrier height : 15.80 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00



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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale 2 (day/night)

Angle1 Angle2 : 36.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 27.00 / 27.00 m
Receiver height : 17.30 / 4.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 36.00 deg Angle2 : 90.00 deg
Barrier height : 121.60 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00



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Results segment # 1: Parkdale 1 (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	17.30	12.62	12.62

ROAD (0.00 + 49.75 + 0.00) = 49.75 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	36	0.00	66.69	0.00	-2.55	-1.55	0.00	0.00	-12.83	49.75

Segment Leq : 49.75 dBA

Results segment # 2: Parkdale 2 (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	17.30	12.62	12.62

ROAD (0.00 + 39.02 + 0.00) = 39.02 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
36	90	0.00	66.69	0.00	-2.55	-5.23	0.00	0.00	-19.88	39.02

Segment Leq : 39.02 dBA

Total Leq All Segments: 50.10 dBA



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Results segment # 1: Parkdale 1 (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	17.30	12.62	12.62

ROAD (0.00 + 42.16 + 0.00) = 42.16 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	36	0.00	59.09	0.00	-2.55	-1.55	0.00	0.00	-12.83	42.16

Segment Leq : 42.16 dBA

Results segment # 2: Parkdale 2 (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	4.50	3.61	3.61

ROAD (0.00 + 31.41 + 0.00) = 31.41 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
36	90	0.00	59.09	0.00	-2.55	-5.23	0.00	0.00	-19.89	31.41

Segment Leq : 31.41 dBA

Total Leq All Segments: 42.51 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 50.10
(NIGHT): 42.51



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STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 11:45:57
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r9.te Time Period: Day/Night 16/8 hours
Description: OLA - Level 6 North

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale 1 (day/night)

Angle1 Angle2 : -9.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 28.00 / 28.00 m
Receiver height : 17.30 / 17.30 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -9.00 deg Angle2 : 90.00 deg
Barrier height : 15.80 m
Barrier receiver distance : 5.00 / 5.00 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00



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Results segment # 1: Parkdale 1 (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	17.30	14.48	14.48

ROAD (0.00 + 52.97 + 0.00) = 52.97 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-9	90	0.00	66.69	0.00	-2.71	-2.60	0.00	0.00	-8.41	52.97

Segment Leq : 52.97 dBA

Total Leq All Segments: 52.97 dBA

Results segment # 1: Parkdale 1 (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	17.30	14.48	14.48

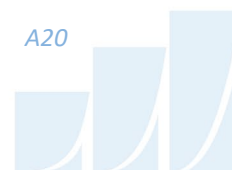
ROAD (0.00 + 45.37 + 0.00) = 45.37 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-9	90	0.00	59.09	0.00	-2.71	-2.60	0.00	0.00	-8.41	45.37

Segment Leq : 45.37 dBA

Total Leq All Segments: 45.37 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 52.97
(NIGHT): 45.37



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STAMSON 5.0 NORMAL REPORT Date: 10-12-2025 14:48:33
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r10.te Time Period: Day/Night 16/8 hours
Description: OLA - Level 6 North

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale 1 (day/night)

Angle1 Angle2 : -2.00 deg 12.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 64.00 / 64.00 m
Receiver height : 17.30 / 17.30 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -2.00 deg Angle2 : 12.00 deg
Barrier height : 15.80 m
Barrier receiver distance : 48.00 / 48.00 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00



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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 40 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): 15000
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: Parkdale 2 (day/night)

Angle1 Angle2 : 12.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 64.00 / 64.00 m
Receiver height : 17.30 / 17.30 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 32.00 deg Angle2 : 90.00 deg
Barrier height : 102.00 m
Barrier receiver distance : 42.00 / 42.00 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00



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Results segment # 1: Parkdale 1 (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	17.30	5.45	5.45

ROAD (0.00 + 29.29 + 0.00) = 29.29 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-2	12	0.00	66.69	0.00	-6.30	-11.09	0.00	0.00	-20.00	29.29

Segment Leq : 29.29 dBA

Results segment # 2: Parkdale 2 (day)

Source height = 1.50 m

Barrier height for grazing incidence

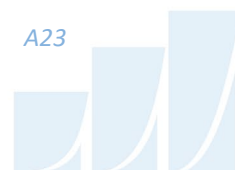
Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	17.30	6.93	6.93

ROAD (50.84 + 35.63 + 0.00) = 50.97 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
12	32	0.00	66.69	0.00	-6.30	-9.54	0.00	0.00	0.00	50.84
32	90	0.00	66.69	0.00	-6.30	-4.92	0.00	0.00	-19.84	35.63

Segment Leq : 50.97 dBA

Total Leq All Segments: 51.00 dBA



GRADIENTWIND

ENGINEERS & SCIENTISTS

Results segment # 1: Parkdale 1 (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	17.30	5.45	5.45

ROAD (0.00 + 21.70 + 0.00) = 21.70 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-2	12	0.00	59.09	0.00	-6.30	-11.09	0.00	0.00	-20.00	21.70

Segment Leq : 21.70 dBA

Results segment # 2: Parkdale 2 (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.50	17.30	6.93	6.93

ROAD (43.25 + 28.03 + 0.00) = 43.37 dBA

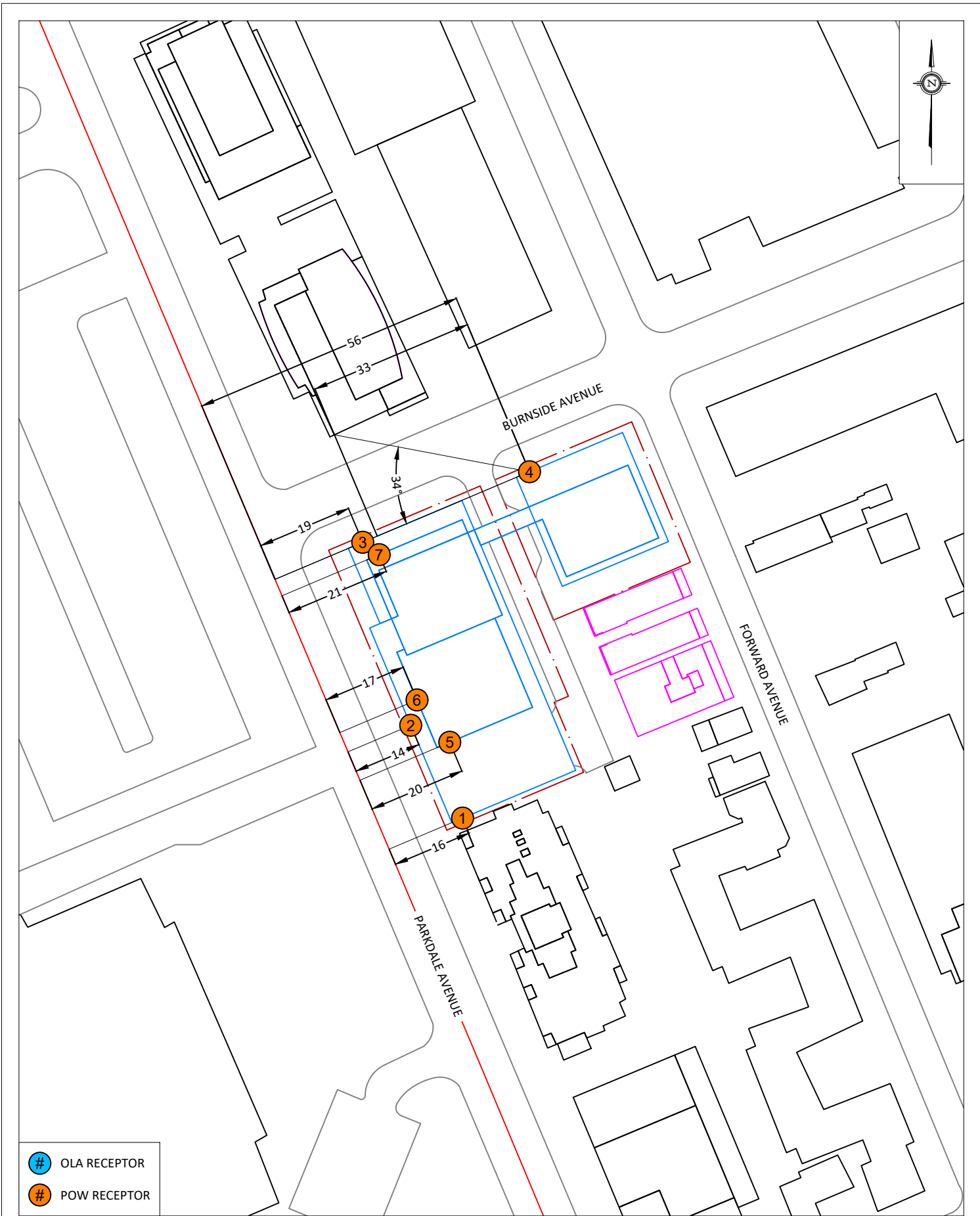
Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
12	32	0.00	59.09	0.00	-6.30	-9.54	0.00	0.00	0.00	43.25
32	90	0.00	59.09	0.00	-6.30	-4.92	0.00	0.00	-19.84	28.03

Segment Leq : 43.37 dBA

Total Leq All Segments: 43.40 dBA

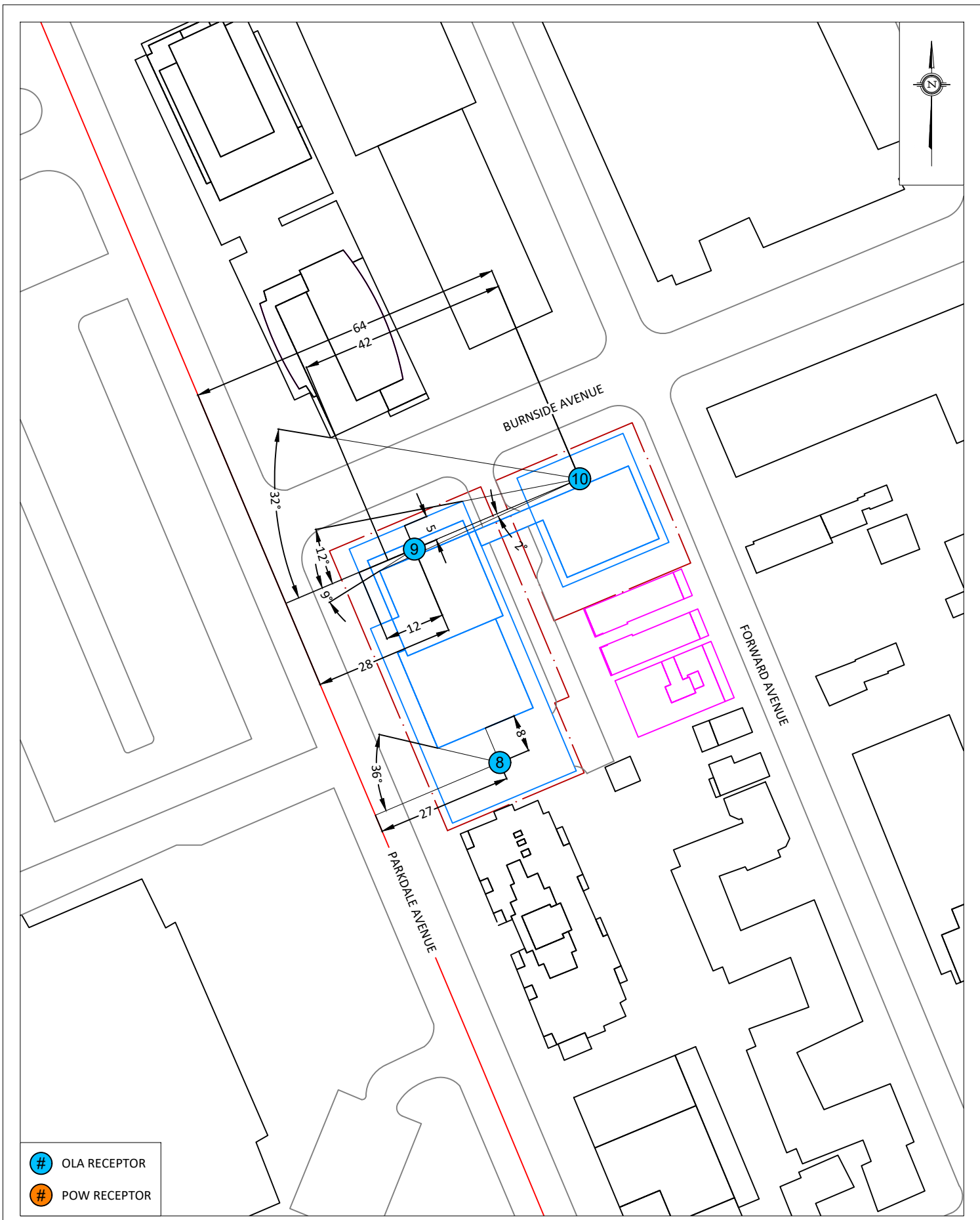
TOTAL Leq FROM ALL SOURCES (DAY): 51.00
(NIGHT): 43.40





- # OLA RECEPTOR
- # POW RECEPTOR

PROJECT	131, 139 PARKDALE AVENUE AND 122 FORWARD AVENUE, OTTAWA TRANSPORTATION NOISE ASSESSMENT	
SCALE	1:1000	DRAWING NO. 25-205-A1
DATE	DECEMBER 2, 2025	DRAWN BY T.K.



- # OLA RECEPTOR
- # POW RECEPTOR

PROJECT	131, 139 PARKDALE AVENUE AND 122 FORWARD AVENUE, OTTAWA TRANSPORTATION NOISE ASSESSMENT	
SCALE	1:1000	DRAWING NO. 25-205-A2
DATE	DECEMBER 2, 2025	DRAWN BY T.K.