NOISE & VIBRATION IMPACT STUDY
&
D6-LAND USE COMPATILITY STUDY

24-STOREY MIXED-USE CONDO BUILDING
127 PLAINS ROAD WEST
BURLINGTON, ON
REGIONAL MUNICIPALITY OF HALTON

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1.0 INTRODUCTION

dBA Acoustical Consultants Inc. has been asked to provide a noise & vibration impact study and a land use compatibility study on behalf of Losani Investment Corporation for the proposed 24-Storey Mixed-Use Condo Building located at 127 Plains Road West, Burlington, ON, Regional Municipality of Halton.

The purpose of the study is to determine the noise and vibration impact from Plains Road West and Howard Road vehicular traffic as well as area stationary noise sources that may impact the proposed building as required for approval by the City of Burlington, Regional Municipality of Halton.

This study will detail noise impact relative to the proposed site plan and recommend the noise control measures necessary (if applicable) to meet Ministry of Environment, Conservation and Parks (MECP) guidelines, while satisfying the planning requirements of the City of Burlington, Regional Municipality of Halton.

Rail noise was not considered in this report as the CN rail lines are approximately 625m north of the proposed development. Aircraft noise was not considered in this report as the development is located outside the 25 NEF of any area airports. Vibration is not considered in this report due to no heavy industry in the site area. (See Attached Figure 1 Site Location).

2.0 SITE DESCRIPTION

The proposed development is a 24-storey mixed-use building consisting of 240 units, 3 levels of underground parking, a 6th floor rooftop amenity area, an amenity area on the 25th floor as well as a ground level amenity area northwest of the proposed building. There is a mechanical penthouse on the 25th floor that is enclosed and will not have an acoustical impact on nearby residents. Standard balconies are proposed and are less than 4m in depth and therefore not considered as Outdoor Living Areas as per MECP guidelines.

The proposed development is in an area comprised mainly of residential single-family dwellings of 1-2 storeys, and several apartment buildings that are approximately 12 storeys tall, as well as several commercial/industrial businesses. The commercial/industrial businesses will be discussed later in the report in Section 7.

Plains Road West is approximately 20m south of the proposed development and runs east and west. It is a 4-lane roadway with a center turn lane and a posted speed limit of 60km/hr. Howard Road is approximately 15m east of the proposed development and runs north and south. It is a 2-lane roadway with a center turn lane and a posted speed limit of 50km/hr. See Figure 2 Site Plan.

3.0 NOISE IMPACT ASSESSMENT

3.1 NOISE CRITERIA

The Publication NPC-300, Stationary & Transportation Sources-Approval & Planning, specifies limits for road noise relative to new residential developments and specifies the noise criteria as summarized as follows:

TABLE 1 - Road Traffic Sound Levels Limits	
Time Period	L_{eq} (dBA)
07:00 – 23:00 (16 hr.)	55 Outdoor Living Area (OLA)
23:00 – 07:00 (8 hr.)	50 Plane of Bedroom Window (POW)

The OLA refers to an outdoor patio, a backyard, a terrace or other area where outdoor passive recreation is expected to occur on the residential property. Noise levels are calculated at the upper storey bedroom window to represent nighttime (23:00 - 07:00) periods.

Where noise levels estimated in the Outdoor Living Area (OLA) and at an upper storey window (POW) are equal to or less than the values listed in Table 1, no noise control measures are required. Where noise levels exceed Table 1 values, the following action is required:

TABLE 2 – Noise Control Requirements		
Time Period	Noise Level Leq (dBA)	Action Required
07:00 - 23:00 Daytime (OLA)	56 to 60	Barrier or Warning Clause Type "A"
07:00 - 23:00 Daytime (OLA)	> 60	Barrier & Warning Clause Type "B"
07:00 – 23:00 Daytime (POW)	> 55	Provision for A/C, Warning Clause "C"
	> 65	Central A/C, Warning Clause "D"
	> 65	Building Component Specification
23:00 to 07:00 Nighttime (POW)	> 50-60	Provision for A/C and Warning Clause Type "C"
23:00 to 07:00 Nighttime (POW)	> 60	Building Component Specification
	> 60	Central Air Conditioning and Warning Clause Type "D"

Where nighttime noise levels exceed 60 dBA, building components must be designed to meet the following Table 3 indoor sound level limits.

TABLE 3 - Indoor Road Sound Levels Limits	
Indoor Location	Leq (dBA)
	Road
Living/Dining 7:00 – 23:00	45
Bedroom 23:00 - 07:00	40

3.2 ROAD NOISE

Predicted road traffic noise levels were calculated for Plains Road West and Howard Road, the major road noise sources in the site area. The City of Burlington 2022 AADT traffic data for both roadways was taken from the City of Burlington's OpenData portal. MECP computer program STAMSON version 5.04 was used to carry out prediction calculations (See Appendix "A" Attached). Traffic data is summarized in Table 4.

The daytime/night-time volume ratio relative for Plains Road West and Howard Road is calculated using a 90/10 split and a 16/8-hour assessment as required by the MECP. Both roadways' volumes were forecasted over 12 years and are reflective of the worst-case scenario. Truck volumes were factored at 2% medium and 2% heavy of the total vehicle volumes for both roadways. Other local streets are not considered in this report due to low traffic volumes, speed limits and/or distance separations and will not have an acoustical impact on the proposed development.

TABLE 4 – Future Road Traffic Volumes (2034)			
Plains Road West	Forecasted AADT 28827 Vehicles		
	Cars	Medium Trucks	Heavy Trucks
Day	24907	519	519
Night	2767	58	58
Howard Road	Forecasted AADT 4049 Vehicles		
	Cars	Medium Trucks	Heavy Trucks
Day	3499	73	73
Night	389	8	8

Table 5A summarizes the "free field" traffic noise prediction results on Plains Road West, modeled at 12 receptor locations including the Outdoor Living Areas (OLA) within the proposed development. (See Figure 3 Receptor Locations).

TABLE 5A – Predicted Future Traffic Noise (dBA) Free Field – Plains Road West		
Location	07:00 – 23:00	23:00 – 07:00
R1 – Southwest Façade 2nd Floor Residential (7m)	69 dBA	62 dBA
R2A – Southwest Façade 6th Floor & Rooftop OLA (19m)	69 dBA	62 dBA
R2B – Southwests Façade 6th Floor & Rooftop OLA (19m) Mitigated 0.91m	53 dBA	47 dBA
R3 – South Façade 12th Floor Residential (37m)	69 dBA	62 dBA
R4A – South Façade 24th Floor & Rooftop OLA (78m)	69 dBA	62 dBA
R4B – South Façade 24th Floor & Rooftop OLA (78m) Mitigated 0.91m	52 dBA	45 dBA
R5 – East Façade 2nd Floor Residential (7m)	64 dBA	57 dBA
R6 – East Façade 12th Floor Residential (37m)	64 dBA	57 dBA
R7A – East Façade 24th Floor & Rooftop OLA (78m)	67 dBA	60 dBA
R7B – East Façade 24th Floor & Rooftop OLA (78m) Mitigated 0.91m	50 dBA	44 dBA
R8 – West Façade 2nd Floor Residential (7m)	64 dBA	57 dBA
R9 – West Façade 6th Floor & Rooftop OLA (19m) Mitigated 0.91m	50 dBA	43 dBA
R10 – West Façade 12th Floor Residential (37m)	64 dBA	57 dBA
R11 – West Façade 24th Floor Residential (75m)	64 dBA	57 dBA
R12 – Northwest Ground Level OLA (1.5m)	56 dBA	50 dBA

Table 5B summarizes the "free field" traffic noise prediction results on Howard Road, modeled at 12 receptor locations including the Outdoor Living Area (OLA) within the proposed development. (See Figure 3 Receptor Locations).

TABLE 5B – Predicted Future Traffic Noise (dBA) Free Field – Howard Road		
Location	07:00 – 23:00	23:00 – 07:00
R1 – Southwest Façade 2nd Floor Residential (7m)	41 dBA	35 dBA
R2A – Southwest Façade 6th Floor & Rooftop OLA (19m)	41 dBA	35 dBA
R2B – Southwests Façade 6th Floor & Rooftop OLA (19m) Mitigated 0.91m	26 dBA	20 dBA
R3 – South Façade 12th Floor Residential (37m)	45 dBA	38 dBA
R4A – South Façade 24th Floor & Rooftop OLA (78m)	57 dBA	51 dBA
R4B – South Façade 24th Floor & Rooftop OLA (78m) Mitigated 0.91m	41 dBA	34 dBA
R5 – East Façade 2nd Floor Residential (7m)	60 dBA	53 dBA
R6 – East Façade 12th Floor Residential (37m)	60 dBA	53 dBA
R7A – East Façade 24th Floor & Rooftop OLA (78m)	60 dBA	53 dBA
R7B – East Façade 24th Floor & Rooftop OLA (78m) Mitigated 0.91m	42 dBA	36 dBA
R8 – West Façade 2nd Floor Residential (7m)	41 dBA	35 dBA
R9 – West Façade 6th Floor & Rooftop OLA (19m) Mitigated 0.91m	26 dBA	20 dBA
R10 – West Façade 12th Floor Residential (37m)	42 dBA	35 dBA
R11 – West Façade 24th Floor Residential (75m)	42 dBA	35 dBA
R12 – Northwest Ground Level OLA (1.5m)	47 dBA	41 dBA

Table 5C summarizes the "free field" traffic noise prediction results on Plains Road West & Howard Road, modeled at 12 receptor locations including the Outdoor Living Area (OLA) within the proposed development. (See Figure 3 Receptor Locations).

TABLE 5C – Predicted Future Traffic Noise (dBA) Free Field COMBINED

Location	07:00 – 23:00	23:00 – 07:00
R1 – Southwest Façade 2nd Floor Residential (7m)	69 dBA	62 dBA
R2A – Southwest Façade 6th Floor & Rooftop OLA (19m)	69 dBA	62 dBA
R2B – Southwests Façade 6th Floor & Rooftop OLA (19m) Mitigated 0.91m	53 dBA	47 dBA
R3 – South Façade 12th Floor Residential (37m)	69 dBA	62 dBA
R4A – South Façade 24th Floor & Rooftop OLA (78m)	69 dBA	62 dBA
R4B – South Façade 24th Floor & Rooftop OLA (78m) Mitigated 0.91m	52 dBA	45 dBA
R5 – East Façade 2nd Floor Residential (7m)	65 dBA	59 dBA
R6 – East Façade 12th Floor Residential (37m)	65 dBA	59 dBA
R7A – East Façade 24th Floor & Rooftop OLA (78m)	68 dBA	61 dBA
R7B – East Façade 24th Floor & Rooftop OLA (78m) Mitigated 0.91m	51 dBA	44 dBA
R8 – West Façade 2nd Floor Residential (7m)	64 dBA	57 dBA
R9 – West Façade 6th Floor & Rooftop OLA (19m) Mitigated 0.91m	50 dBA	44 dBA
R10 – West Façade 12th Floor Residential (37m)	64 dBA	57 dBA
R11 – West Façade 24th Floor Residential (75m)	64 dBA	57 dBA
R12 – Northwest Ground Level OLA (1.5m)	57 dBA	50 dBA

3.3 VIBRATION

The City of Burlington Construction & Mobility Policy will require pre-condition surveys of area buildings within the area of influence (to be established), vibration protocol, shoring approval and vibration monitoring during shoring and all heavy construction activities. Further information will be provided prior to the issuance of a building permit or as The City of Burlington staff require the documents for approval.

4.0 RECOMMENDATIONS - NOISE CONTROL

4.1 OUTDOOR LIVING AREAS

Calculated road noise levels exceed 55 dBA daytime criteria as outlined in Table 1. Proposed for the development is a 6th floor rooftop amenity area, a 25th floor rooftop amenity area as well as a ground level amenity area at the northwest portion of the property. The 6th floor and 25th floor amenity areas will require a minimum 0.91m (3 feet) safety railing or equivalent.

For reference, the MECP requirements for an acoustical barrier are:

- Minimum surface density (Face Weight) of 20 kg/m².
- Structurally sound.
- Appropriately designed to withstand wind and snow load and constructed without cracks or surface gaps.

4.2 INDOOR NOISE LEVELS

Calculated nighttime road noise levels at the Plane of Window (POW) exceed the 50 dBA criteria outlined in Table 1. Specific building components (walls, windows, doors etc.) are required and confirmed using the STC (Sound Transmission Class) methods and are summarized in Table 6 following with minimum window door and wall construction specified for all residential units throughout the development.

The STC values were calculated for each room type, based on typical window to floor ratios of 20% for bedrooms and 30% for living room areas. Wall-to-floor ratio was factored at 80%. A maximum of two components were factored per room. All windows throughout the development must meet STC-34 values with acoustical ratings.

Acoustically tested windows must be verified by a letter from the appropriate window company to confirm the STC values have been achieved. dBA has taken the highest traffic noise level and applied the STC-34 rating to all windows throughout the development as it is cost efficient for all the windows to have the same STC value will ensure that the proper windows are professionally installed which eliminates any errors.

TABLE 6 – Recommended Door, Wall, and Window Construction

LOCATION	Window STC To Be Used	Exterior Wall STC Construction	Patio Door STC Construction
All Units	Example	Example	Example
Bedroom	STC-34	STC-36	STC-34
Living room	STC-34	STC-36	STC-34

Recommendations assume windows are well-fitted, weather-stripped units that can be opened.

5.0 VENTILATION / WARNING CLAUSES

Ventilation and Warning Clause requirements are required for this project as noted in Table 7 following. It is recommended that the appropriate warning clauses be inserted into all Offers and Agreements of Purchase and Sale or Lease.

TABLE 7 - Ventilation and Warning Clause Requirements

LOCATION	VENTILATION	WARNING CLAUSE
All Units	Central Air Conditioning	Type “D”

TYPE D: All Units

> “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 Municipality’s and the MECP’s noise criteria.”

6.0 REGULATORY CONTEXT

The MECP Publication NPC-300 - Stationary and Transportation Source Guidelines defines a point of reception/receptor as *“any point on the premises of a person where the sound or vibration originating from other than those premises is received.”*

The point of reception may be located on any of the following, or zoned for future use, premises including but not limited to the following: residential homes, hospitals, nursing/retirement homes, etc.

6.1 CLASS 1 NOISE LEVEL CRITERIA

The areas surrounding "127 Plains Road West" is indicative of a "Class 1 Area" (Urban) as defined in MECP Publication NPC-300, Stationary & Transportation Sources-Approval & Planning.

"Class 1 area" means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum."

The applicable sound limits are the higher of:

- The existing ambient sound level; or
- The minimum values of Table 8.1. & and Table 8.1B

No restrictions apply to stationary sources if the one-hour equivalent sound exposure (Leq) is lower than the levels in the following Table 8.1A and Table 8.1B.

Table 8.1A
Exclusion Limit Values of One-Hour Equivalent Sound Level (Leq, dBA)
Outdoor Points of Reception

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

Table 8.1B
Exclusion Limit Values of One-Hour Equivalent Sound Level (Leq, dBA)
Plane of Window of Noise Sensitive Spaces

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

6.2 D6 NOISE SEPARATION

D6 - Class I Industrial Facility
A place of business for a small-scale, self-contained plant or building which produces/stores a product which is contained in a package and has low probability of fugitive emissions. Outputs are infrequent and could be point source or fugitive emissions for any of the following: noise, odour, dust and/or vibration. There are daytime operations only, with infrequent movement of products and/or heavy trucks and no outside storage.

D6 - Class II Industrial Facility
A place of business for medium scale processing and manufacturing with outdoor storage of wastes or materials (i.e., it has an open process) and/or there are periodic outputs of minor annoyance. There are occasional outputs of either point source or fugitive emissions for any of the following: noise, odour, dust and/or vibration, and low probability of fugitive emissions. Shift operations are permitted and there is frequent movement of products and/or heavy trucks during daytime hours.

D6 - Class III Industrial Facility
A place of business for large scale manufacturing or processing, characterized by large physical size, outside storage of raw and finished products, large production volumes and continuous movement of products and employees during daily shift operations. It has frequent outputs of major annoyance and there is high probability of fugitive emissions.

D-6-3 Separation Distances

Class 1 - 70m potential influence area
- 20m minimum separation distance recommended

Class II - 300m potential influence area
- 70m minimum separation distance recommended

Class III - 1000m potential influence area
- 300m minimum separation distance recommended

7.0 STATIONARY SOURCES

7.1 AGRO WHOLESALE PRODUCE (Class I)

Agro Wholesale Produce is located at 1032 Howard Road and has thirteen truck bays located on the west side of the building. The refrigerated trucks enter and exit off Howard Road. The refrigeration system on the trailer stays on during loading and unloading to maintain the temperature in the trailer. dBA staff spoke with the Plant Manager, who advised that on average they have 3 refrigerated trucks per day to the site. However, due to the hours of operation, we have used 6 trucks per hour in our calculations, which would be representative of a worst-case scenario. The business is open 24 hours daily, however the City of Burlington Noise By-Law states that trucks can only load/unload during the hours of 7:00am- 11:00pm daily and that deliveries are prohibited between 11:00pm – 7:00am daily.

A site visit was conducted on Tuesday October 29th, 2024, dBA staff acquired noise measurements of the chiller unit which is located on the southwest side of the building. The chiller unit and rooftop cooler fans were in operation. The chiller unit operated for a period of 5 minutes on then 15 minutes off. The rooftop cooler fans operated continuously. The noise reading took place approximately 20m south of the chiller unit and the Leq reading was 54.4 dBA over 5 minutes that both the rooftop cooler fans and the chiller unit were operating together. The southwest proposed building façade is located approximately 70m from the chiller unit and 77m from the rooftop chiller fans therefore a distance of 50m was used for the sound propagation level chart. The sound level of the chiller unit and rooftop cooler fans will not have an impact on the proposed development as the noise levels are 15.2 dBA at the 2nd floor and 9.9 dBA at the 24th floor. See Appendix “B” for Area Overview and Sound Propagation Levels.

7.1.1 TRUCK NOISE CALCULATIONS

Sound Propagation level calculations for a refrigerated trailer are listed in Appendix "B". It is anticipated that these refrigerated trailers are idling for a full one-hour period. While the truck movement will not take an hour, a one-hour period was used to represent the worst-case scenario.

Table 10 – Refrigerated Trailers at Bay Doors and Truck Movement

Source ID	Source Description	Receptor Locations – Commercial Plazas		
		Distance (m)	Leq Level (dBA) 7m	78m
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Truck Movement	1 Truck	122	19.5	17.5
TOTAL: All Truck Noise Sources Combined		--	**22.1**	**31.2**

2nd Floor Residential 7m; 24th Floor Residential 78m

7.2 ALDERSHOT MEWS

Aldershot Mews is a plaza located at 107 Plains Road West. It has several small businesses and has six 5-ton rooftop HVAC units. These businesses do not operate at nighttime. See Appendix "B" for sound propagation levels. This property is not classified under the D6 guidelines as it is not an industry.

7.3 ST MARYS CBM (Class II)

St Mary's CBM is a ready-mix concrete supplier at 1093 Howard Road and operate under MECP guidelines for Air & Odour Certification issued by the MECP. They are open 6am - 5pm Monday to Friday and are closed on Saturday and Sunday. CMB has several buildings on site that are vacant. The vacant buildings have no acoustical impact on the proposed site development. Located 220m north of the proposed site development is a large concrete mixing house for discharging mixed concrete into trucks. The concrete site utilizes a small John Deere front-end loader to load sand and concrete material onto a conveyor belt that in turn loads the mixing house. There is no acoustical sound from the front-end loader at the proposed site due to distance separation and the traffic background noise level.

Noise monitoring was conducted during the filling of mixed concrete into a concrete truck. This process took approximately 15 minutes once the concrete truck entered the mixing house and exited the site. There is only one mixing house on site. The combined sound level of the mixing house and concrete truck idling was recorded at 75.1 dBA at 3m from the mixing house. When the distance from the mixing house to the proposed development is taken into account the resulting sound levels are 22.7 dBA at the 2nd floor and 22.1 dBA at the 24th floor. Therefore, St Mary's CBM will not have an acoustical impact on the proposed development. Please see Appendix "B" for Sound Propagation Levels and Photos.

8.0 CALCULATED HVAC UNITS AT TWO LOCATIONS

There are ten rooftop HVAC units on the roofs of the two commercial businesses that may have an acoustical impact on the proposed residential building. The closest building is Agro Wholesale Produce which has four 5-ton rooftop units. The second building is Aldershot Mews which has six 5-ton rooftop HVAC units.

The rooftop HVAC units sound power levels were derived from the dBA Acoustical Consultants library and applied. In these specifications, sound power levels are calculated for each of the HVAC inlet, outlet and casing. The overall sound power level was applied in the modelling and is summarized in Appendix "B".

Table 11 – Addition of all HVAC units operating at once

Source ID	Source Description	Receptor Locations – Commercial Plazas		
		Distance (m)	Leq Level (dBA)	
			7m	78m
HVAC RTU-1	(1 Unit)	59	32.1	27.1
HVAC RTU-2	(1 Unit)	85	28.2	25.2
HVAC RTU-3	(1 Unit)	85	28.2	25.2
HVAC RTU-4	(1 Unit)	85	28.2	25.2
HVAC RTU-5	(1 Unit)	66	30.9	26.5
HVAC RTU-6	(1 Unit)	62	31.6	26.8
HVAC RTU-7	(1 Unit)	62	31.6	26.8
HVAC RTU-8	(1 Unit)	73	29.9	26.0
HVAC RTU-9	(1 Unit)	81	28.7	25.4
HVAC RTU-10	(1 Unit)	81	28.7	25.4
TOTAL: All Noise Sources Combined		--	**39.5**	**36.0**

2nd Floor Residential 7m; 24th Floor Residential 78m

8.1 COMBINED NOISE SOURCES

Source ID	Source Description	Receptor Locations – Commercial Plazas		
		Distance (m)	Leq Level (dBA) 7m	78m
HVAC RTU-1	(1 Unit)	59	32.1	27.1
HVAC RTU-2	(1 Unit)	85	28.2	25.2
HVAC RTU-3	(1 Unit)	85	28.2	25.2
HVAC RTU-4	(1 Unit)	85	28.2	25.2
HVAC RTU-5	(1 Unit)	66	30.9	26.5
HVAC RTU-6	(1 Unit)	62	31.6	26.8
HVAC RTU-7	(1 Unit)	62	31.6	26.8
HVAC RTU-8	(1 Unit)	73	29.9	26.0
HVAC RTU-9	(1 Unit)	81	28.7	25.4
HVAC RTU-10	(1 Unit)	81	28.7	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Refrigerated Trailer Idling	1 Truck	120	10.9	23.2
Truck Movement	1 Truck	122	19.5	17.5
TOTAL: All Noise Sources Combined		--	**39.5**	**36.0**

2nd Floor Residential 7m; 24th Floor Residential 78m

9.0 LAND USE COMPATABILITY STUDY

DBA staff has compiled noise levels from all the local businesses in the area and have noted the MECP D6 guidelines for this site development and have Classified each area business in Classes I, II, or III where applicable and are noted in Section 8.0 in this study. Whereas we have followed the D6 guidelines we feel a Land Use Compatibility study is not warranted as all the local businesses noise levels are below MECP Noise Criteria as noted in Section 6.1 of this noise study.

10.0 SUMMARY OF RECOMMENDATIONS

The following noise control measures are required to satisfy the indoor and outdoor noise level criterion:

- Central Air conditioners for all units as shown in Table 7.
- Specific Warning Clauses inserted into all Offers and Agreements of Purchase and Sale or Lease for all units. (Table 7)
- A minimum 0.91m (3ft) Safety Railing or equivalent for the 6th floor and 25th floor amenity areas. (Section 4.1)
- Appropriate STC-34 rating for all windows and patio doors, for all units.
- Exterior walls require an STC-36, throughout the development for all units.
- A Letter from the window supplier indicating the proposed windows STC-34 construction has been achieved.

Qualified Acoustical Consultant certifies that the required noise control measures have been incorporated into the builder's plans prior to issuance of a building permit.

Prior to issuance of an occupancy permit or equivalent, it is recommended the Qualified Acoustical Consultant certify that the approved noise control measures have been professionally installed.

11.0 CONCLUSIONS

dBA Acoustical Consultants Inc. has provided a noise & vibration impact study and a land use compatibility study on behalf of Losani Investment Corporation for the proposed 24-Storey Mixed-Use Condo Building located at 127 Plains Road West, Burlington, ON, Regional Municipality of Halton.

The study determined the noise and vibration impact from Plains Road West and Howard Road vehicular traffic impacts the proposed building whereas the area stationary noise sources do not impact the proposed building as required for approval by the City of Burlington, Regional Municipality of Halton.

This study detailed noise impact relative to the proposed site plan and recommended the noise control measures necessary to meet Ministry of Environment, Conservation and Parks (MECP) guidelines, while satisfying the planning requirements of the City of Burlington, Regional Municipality of Halton.

FIGURE 1
SITE LOCATION

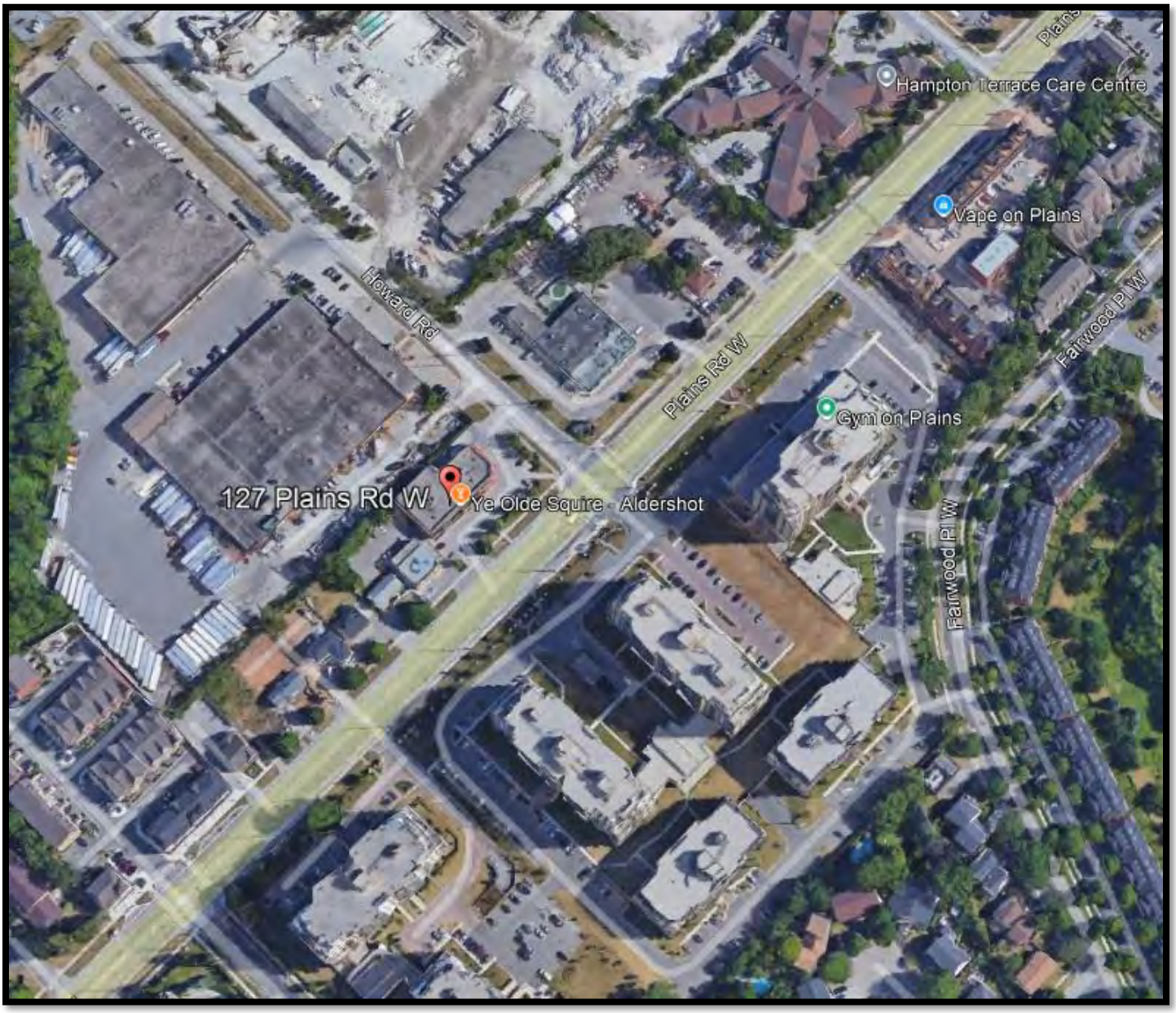


FIGURE 2
SITE PLAN

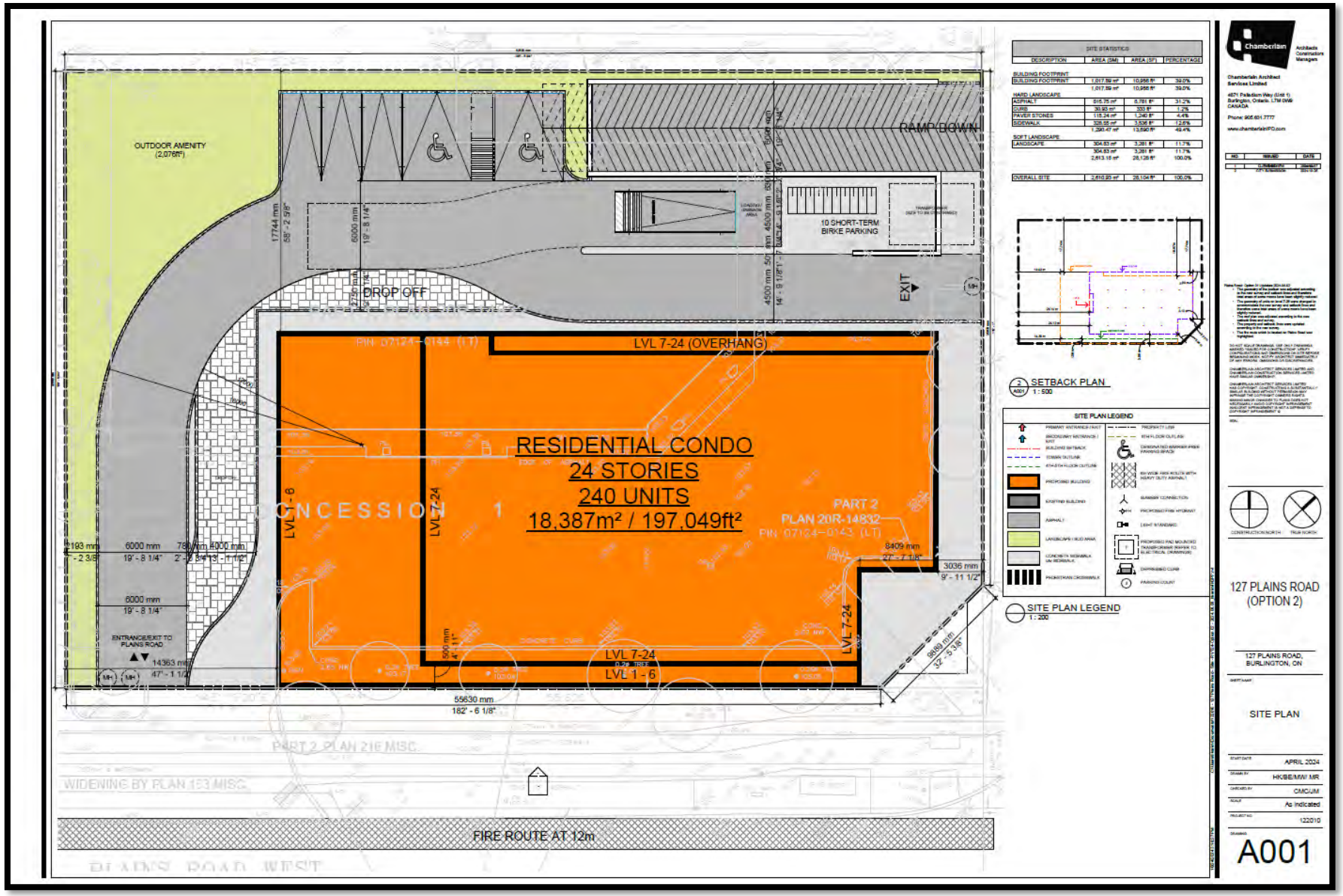


FIGURE 3
RECEPTOR LOCATIONS

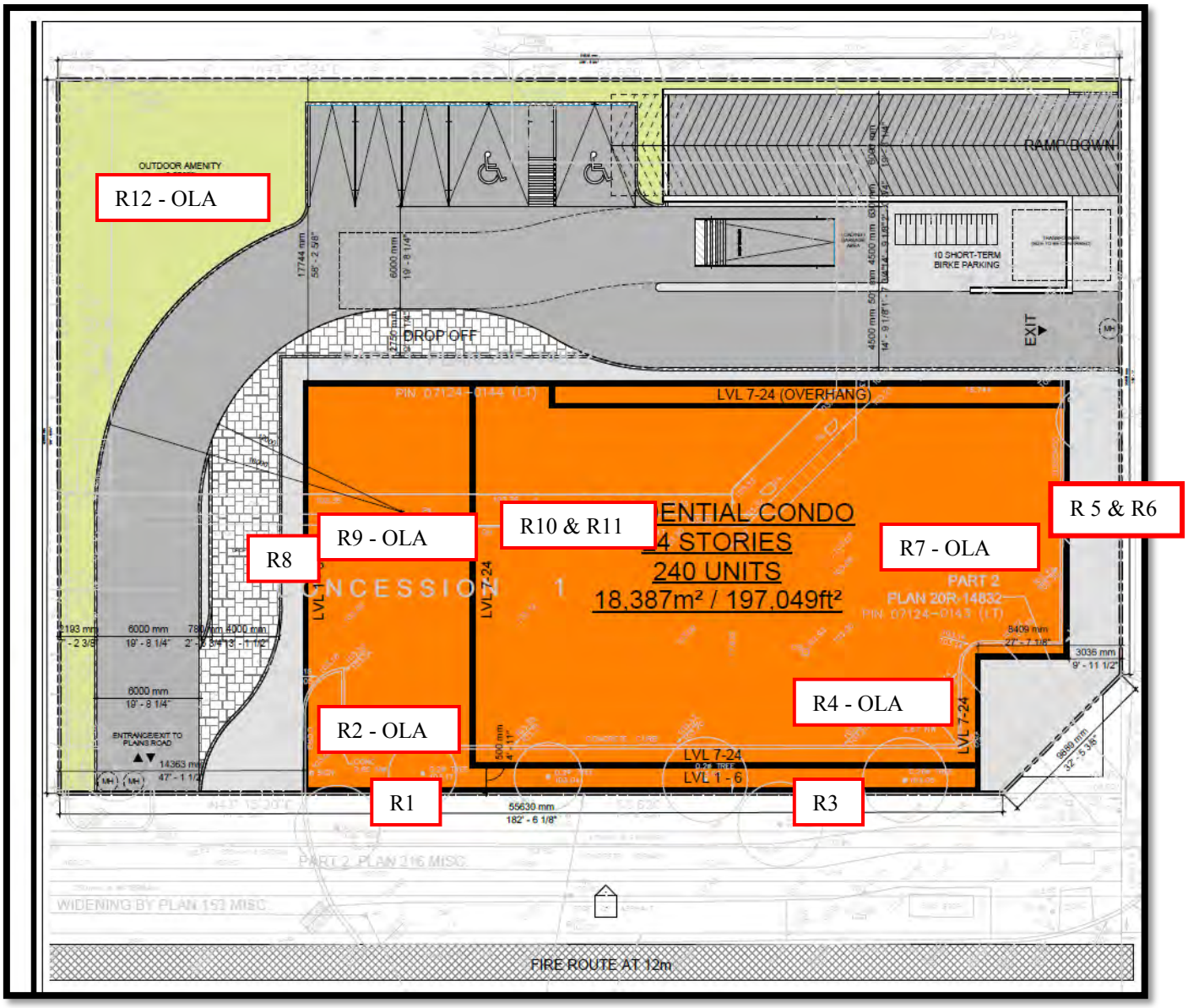


FIGURE 4
NOISE BARRIER LOCATION
6TH FLOOR ROOFTOP AMENITY AREA 0.91M

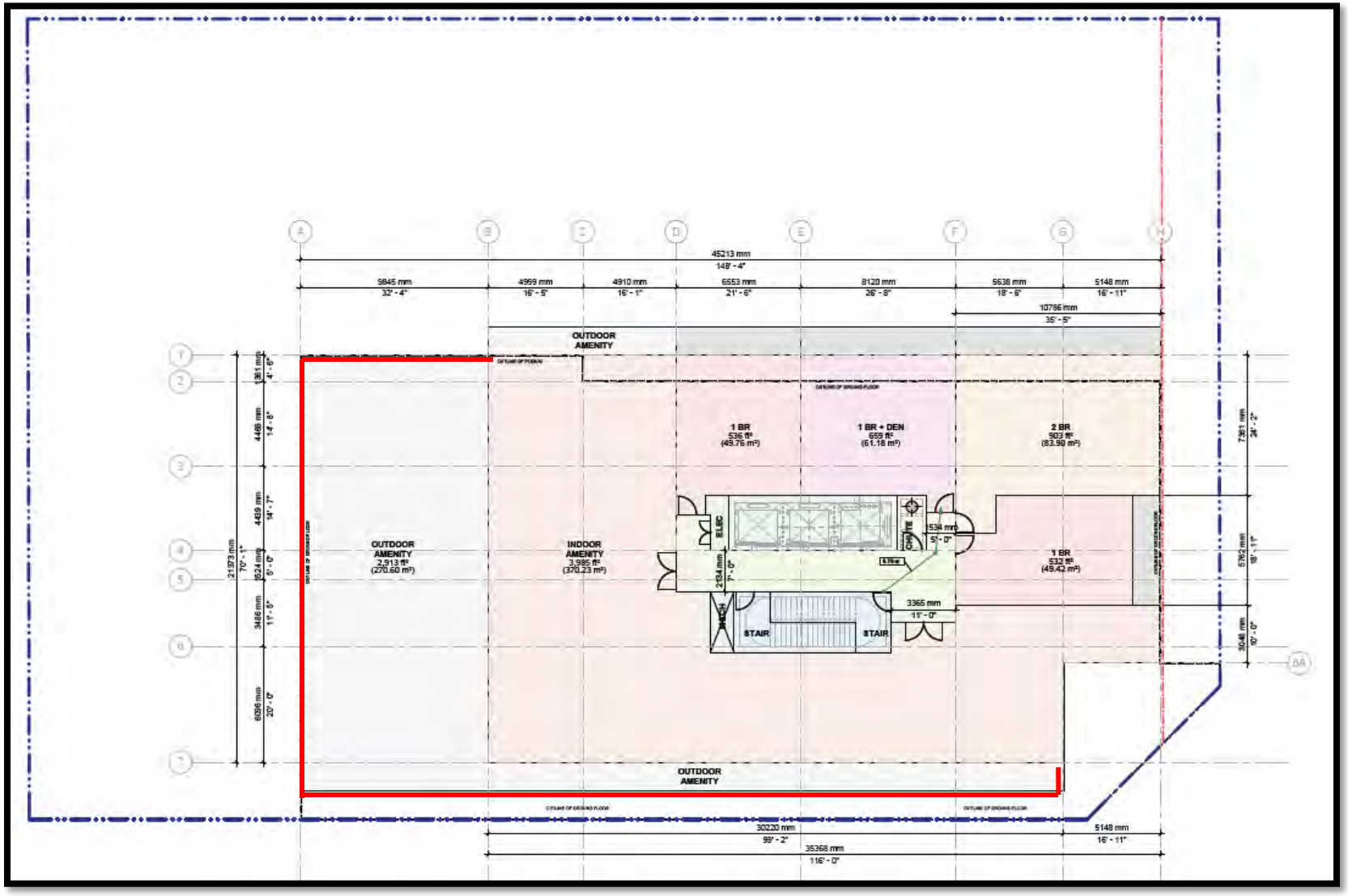
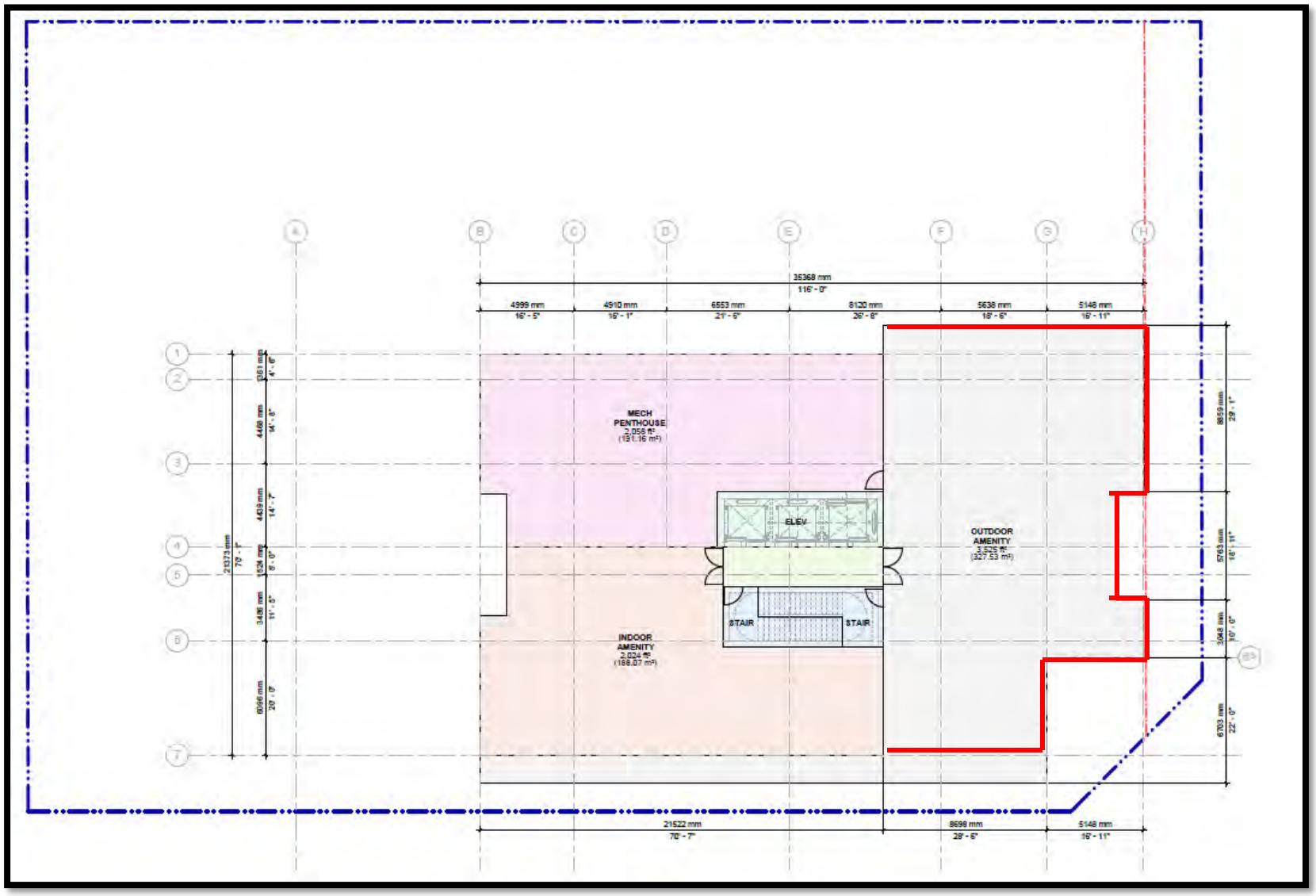


FIGURE 4
NOISE BARRIER LOCATION
24TH FLOOR ROOFTOP AMENITY AREA 0.91M



APPENDIX "A"

CITY OF BURLINGTON 2022 AADT TRAFFIC DATA
PLAINS ROAD WEST



AADT Counts 2022

Zoom to

FID	196
STREET_NAM	PLAINS RD. W
TES_ID	219,930
Volume	22,730
AADT_Year	2,022
Shape__Length	256.735

CITY OF BURLINGTON 2022 AADT TRAFFIC DATA
HOWARD ROAD



AADT Counts 2022

Zoom to

FID	908
STREET_NAM	HOWARD RD.
TES_ID	211,470
Volume	3,193
AADT_Year	2,022
Shape__Length	394.261

STAMSON CALCULATIONS

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 14:51:21
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r1plains.te          Time Period: Day/Night 16/8 hours
```
Description: R1 Plains Rd W Southwest Facade 2nd Floor Residential
TOTAL Leq FROM ALL SOURCES (DAY): 68.63
(NIGHT): 62.11

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  20.00 / 20.00  m
Receiver height           :   7.00 / 7.00   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (day/night)
-------------------------------------------
Angle1   Angle2           :  -0.00 deg   10.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  55.00 / 55.00  m
Receiver height           :   7.00 / 7.00   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	68.62	68.62
2.Howard Rd	1.19	41.47	41.47
Total			68.63 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	62.10	62.10
2.Howard Rd	1.19	34.91	34.91
Total			62.11 dBA

```
STAMSON 5.04        SUMMARY REPORT        Date: 29-10-2024 10:26:02
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r2Aplain.te          Time Period: Day/Night 16/8 hours
```
Description: R2A Plains Rd W. Southwest Facade 6th Floor Residential & Rooftop OLA
TOTAL Leq FROM ALL SOURCES (DAY): 68.63
(NIGHT): 62.11

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  20.00 / 20.00  m
Receiver height           :  19.00 / 19.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (day/night)
------------------------------------------
Angle1   Angle2           :  -0.00 deg   10.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  55.00 / 55.00  m
Receiver height           :  19.00 / 19.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	68.62	68.62
2.Howard Rd	1.19	41.47	41.47
Total			68.63 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	62.10	62.10
2.Howard Rd	1.19	34.91	34.91
Total			62.11 dBA

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 15:25:48
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r2Bplains.te          Time Period: Day/Night 16/8 hours
```
Description: R2B Plains Rd W Southwest Facade 6th & Rooftop OLA Mitigated 0.91m
TOTAL Leq FROM ALL SOURCES (DAY): 53.34
(NIGHT): 46.82

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  20.00 / 20.00  m
Receiver height           :  19.00 / 19.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :   0.91 m
Barrier receiver distance :   3.00 / 3.00   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :  19.00 m
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: Howard Rd (day/night)
-------------------------------------------
Angle1   Angle2           :  -0.00 deg   10.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  55.00 / 55.00  m
Receiver height           :  19.00 / 19.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            :  -0.00 deg   Angle2 : 10.00 deg
Barrier height            :   0.91 m
Barrier receiver distance :   3.00 / 3.00   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :  19.00 m

Result summary (day)
--------------------
                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
                    !   (m)    !  (dBA)   !  (dBA)
--------------------+---------+---------+---------
 1.Plains Rd W      !     1.19 !    53.33 !    53.33
 2.Howard Rd        !     1.19 !    26.18 !    26.18
--------------------+---------+---------+---------
                      Total                 53.34 dBA

Result summary (night)
----------------------
                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
                    !   (m)    !  (dBA)   !  (dBA)
--------------------+---------+---------+---------
 1.Plains Rd W      !     1.19 !    46.81 !    46.81
 2.Howard Rd        !     1.19 !    19.61 !    19.61
--------------------+---------+---------+---------
                      Total                 46.82 dBA
```

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 15:29:44
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r3plains.te          Time Period: Day/Night 16/8 hours
```
Description: R3 Plains Rd W South Facade 12th Floor Residential
TOTAL Leq FROM ALL SOURCES (DAY): 68.64
(NIGHT): 62.12

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  20.00 / 20.00  m
Receiver height           :  37.00 / 37.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (day/night)
-------------------------------------------
Angle1   Angle2           :  -0.00 deg   10.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  25.00 / 25.00  m
Receiver height           :  37.00 / 37.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	68.62	68.62
2.Howard Rd	1.19	44.90	44.90
Total			68.64 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	62.10	62.10
2.Howard Rd	1.19	38.33	38.33
Total			62.12 dBA

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 15:32:58
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r4Aplains.te          Time Period: Day/Night 16/8 hours
```
Description: R4A Plains Rd W South Facade 24th Floor & Rooftop OLA
TOTAL Leq FROM ALL SOURCES (DAY): 68.94
(NIGHT): 62.42

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  20.00 / 20.00  m
Receiver height           :  78.00 / 78.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (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  :  25.00 / 25.00  m
Receiver height           :  78.00 / 78.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	68.62	68.62
2.Howard Rd	1.19	57.45	57.45
Total			68.94 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	62.10	62.10
2.Howard Rd	1.19	50.88	50.88
Total			62.42 dBA

```
STAMSON 5.04        SUMMARY REPORT        Date: 29-10-2024 09:38:29
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r4Bplains.te          Time Period: Day/Night 16/8 hours
```
Description: R4B Plains Rd. W. South Facade 24th Floor & Rooftop OLA Mitigated 0.91m
TOTAL Leq FROM ALL SOURCES (DAY): 51.88
(NIGHT): 45.36

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  20.00 / 20.00  m
Receiver height           :  78.00 / 78.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :   0.91 m
Barrier receiver distance :   3.00 / 3.00   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :  78.00 m
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: Howard Rd (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  :  25.00 / 25.00  m
Receiver height           :  78.00 / 78.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :   0.91 m
Barrier receiver distance :   3.00 / 3.00   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :  78.00 m
Reference angle           :   0.00

Result summary (day)
--------------------
                   !  source  !   Road   !  Total
                   !  height  !   Leq    !   Leq
                   !   (m)    !  (dBA)   !  (dBA)
-------------------+---------+---------+---------
 1.Plains Rd W     !     1.19 !    51.55 !    51.55
 2.Howard Rd       !     1.19 !    40.50 !    40.50
-------------------+---------+---------+---------
                     Total                 51.88 dBA

Result summary (night)
----------------------
                   !  source  !   Road   !  Total
                   !  height  !   Leq    !   Leq
                   !   (m)    !  (dBA)   !  (dBA)
-------------------+---------+---------+---------
 1.Plains Rd W     !     1.19 !    45.03 !    45.03
 2.Howard Rd       !     1.19 !    33.94 !    33.94
-------------------+---------+---------+---------
                     Total                 45.36 dBA
```

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 15:43:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r5plains.te          Time Period: Day/Night 16/8 hours
```
Description: R5 Plains Rd W East Facade 2nd Floor Residential
TOTAL Leq FROM ALL SOURCES (DAY): 65.25
(NIGHT): 58.72

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  30.00 / 30.00  m
Receiver height           :   7.00 / 7.00   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (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           :   7.00 / 7.00   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	63.85	63.85
2.Howard Rd	1.19	59.67	59.67
Total			65.25 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	57.33	57.33
2.Howard Rd	1.19	53.10	53.10
Total			58.72 dBA

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 15:45:49
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r6plains.te          Time Period: Day/Night 16/8 hours
```
Description: R6 Plains Rd W East Facade 12th Floor Residential
TOTAL Leq FROM ALL SOURCES (DAY): 65.25
(NIGHT): 58.72

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  30.00 / 30.00  m
Receiver height           :  37.00 / 37.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (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           :  37.00 / 37.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	63.85	63.85
2.Howard Rd	1.19	59.67	59.67
Total			65.25 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	57.33	57.33
2.Howard Rd	1.19	53.10	53.10
Total			58.72 dBA

```
STAMSON 5.04        SUMMARY REPORT        Date: 29-10-2024 10:00:24
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r7Aplain.te          Time Period: Day/Night 16/8 hours
```
Description: R7A Plains Rd W. East Facade 24th Floor & Rooftop OLA
TOTAL Leq FROM ALL SOURCES (DAY): 67.62
(NIGHT): 61.09

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  30.00 / 30.00  m
Receiver height           :  78.00 / 78.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (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           :  78.00 / 78.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	66.86	66.86
2.Howard Rd	1.19	59.67	59.67
Total			67.62 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	60.34	60.34
2.Howard Rd	1.19	53.10	53.10
Total			61.09 dBA

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 15:48:58
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r7Bplains.te          Time Period: Day/Night 16/8 hours
```
Description: R7B Plains Rd West Facade 24th Floor & Rooftop OLA Mitigated 0.91m
TOTAL Leq FROM ALL SOURCES (DAY): 50.75
(NIGHT): 44.22

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  30.00 / 30.00  m
Receiver height           :  78.00 / 78.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :   0.91 m
Barrier receiver distance :   3.00 / 3.00   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :  78.00 m
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: Howard Rd (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           :  78.00 / 78.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :   0.91 m
Barrier receiver distance :   3.00 / 3.00   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :  78.00 m

Result summary (day)
--------------------
                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
                    !   (m)    !  (dBA)   !  (dBA)
--------------------+---------+---------+---------
 1.Plains Rd W      !     1.19 !    50.05 !    50.05
 2.Howard Rd        !     1.19 !    42.47 !    42.47
--------------------+---------+---------+---------
                      Total                 50.75 dBA

Result summary (night)
----------------------

                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
                    !   (m)    !  (dBA)   !  (dBA)
--------------------+---------+---------+---------
 1.Plains Rd W      !     1.19 !    43.53 !    43.53
 2.Howard Rd        !     1.19 !    35.90 !    35.90
--------------------+---------+---------+---------
                      Total                 44.22 dBA
```

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 15:53:29
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r8plains.te          Time Period: Day/Night 16/8 hours
```
Description: R8 Plains Rd W West Facade 2nd Floor Residential
TOTAL Leq FROM ALL SOURCES (DAY): 63.87
(NIGHT): 57.35

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  30.00 / 30.00  m
Receiver height           :   7.00 / 7.00   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (day/night)
-----------------------------------------
Angle1   Angle2           : -10.00 deg   0.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  60.00 / 60.00  m
Receiver height           :   7.00 / 7.00   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	63.85	63.85
2.Howard Rd	1.19	41.10	41.10
Total			63.87 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	57.33	57.33
2.Howard Rd	1.19	34.53	34.53
Total			57.35 dBA

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 15:55:08
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r9plains.te          Time Period: Day/Night 16/8 hours
```
Description: R9 Plains Rd W West Facade 6th Floor Residential & OLA Mitigated 0.91m
TOTAL Leq FROM ALL SOURCES (DAY): 50.02
(NIGHT): 43.51

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  30.00 / 30.00  m
Receiver height           :  19.00 / 19.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -90.00 deg   Angle2 : 0.00 deg
Barrier height            :   0.91 m
Barrier receiver distance :   3.00 / 3.00   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :  19.00 m
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: Howard Rd (day/night)
-------------------------------------------
Angle1   Angle2           : -10.00 deg   0.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  60.00 / 60.00  m
Receiver height           :  19.00 / 19.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -10.00 deg   Angle2 : 0.00 deg
Barrier height            :   0.91 m
Barrier receiver distance :   3.00 / 3.00   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :  19.00 m

Result summary (day)
--------------------
                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
                    !   (m)    !  (dBA)   !  (dBA)
--------------------+---------+---------+---------
 1.Plains Rd W      !     1.19 !    50.00 !    50.00
 2.Howard Rd        !     1.19 !    26.16 !    26.16
--------------------+---------+---------+---------
                      Total                 50.02 dBA

Result summary (night)
----------------------
                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
                    !   (m)    !  (dBA)   !  (dBA)
--------------------+---------+---------+---------
 1.Plains Rd W      !     1.19 !    43.49 !    43.49
 2.Howard Rd        !     1.19 !    19.59 !    19.59
--------------------+---------+---------+---------
                      Total                 43.51 dBA
```

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 15:59:18
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r10plain.te          Time Period: Day/Night 16/8 hours
```
Description: R10 Plains Rd W West Facade 12th Floor Residential
TOTAL Leq FROM ALL SOURCES (DAY): 63.88
(NIGHT): 57.36

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  30.00 / 30.00  m
Receiver height           :  37.00 / 37.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (day/night)
-------------------------------------------
Angle1   Angle2           : -10.00 deg   0.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  50.00 / 50.00  m
Receiver height           :  37.00 / 37.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	63.85	63.85
2.Howard Rd	1.19	41.89	41.89
Total			63.88 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	57.33	57.33
2.Howard Rd	1.19	35.32	35.32
Total			57.36 dBA

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 16:02:10
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r11plain.te          Time Period: Day/Night 16/8 hours
Description: R11 Plains Rd W West Facade 24th Floor Residential
                 TOTAL Leq FROM ALL SOURCES              (DAY): 63.88
                                                        (NIGHT): 57.36

Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (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  :  30.00 / 30.00  m
Receiver height           :  75.00 / 75.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (day/night)
-----------------------------------------
Angle1   Angle2           : -10.00 deg   0.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  50.00 / 50.00  m
Receiver height           :  75.00 / 75.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	63.85	63.85
2.Howard Rd	1.19	41.89	41.89
Total			63.88 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	57.33	57.33
2.Howard Rd	1.19	35.32	35.32
Total			57.36 dBA

```
STAMSON 5.04        SUMMARY REPORT        Date: 15-10-2024 16:04:58
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r12plain.te          Time Period: Day/Night 16/8 hours
```
Description: R12 Plains Rd W Northwest Ground Level OLA
TOTAL Leq FROM ALL SOURCES (DAY): 56.59
(NIGHT): 50.06

```
Road data, segment # 1: Plains Rd W (day/night)
-----------------------------------------------
Car traffic volume  : 24907/2767  veh/TimePeriod  *
Medium truck volume :   519/58    veh/TimePeriod  *
Heavy truck volume  :   519/58    veh/TimePeriod  *
Posted speed limit  :    60 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):  22730
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Plains Rd W (day/night)
---------------------------------------------
Angle1   Angle2           : -10.00 deg   10.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  40.00 / 40.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: Howard Rd (day/night)
---------------------------------------------
Car traffic volume  :  3499/389   veh/TimePeriod  *
Medium truck volume :    73/8     veh/TimePeriod  *
Heavy truck volume  :    73/8     veh/TimePeriod  *
Posted speed limit  :    50 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):   3193
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.00
    Heavy Truck  % of Total Volume     :   2.00
    Day (16 hrs) % of Total Volume     :  90.00
```

```
Data for Segment # 2: Howard Rd (day/night)
-------------------------------------------
Angle1   Angle2           : -10.00 deg   30.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  60.00 / 60.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

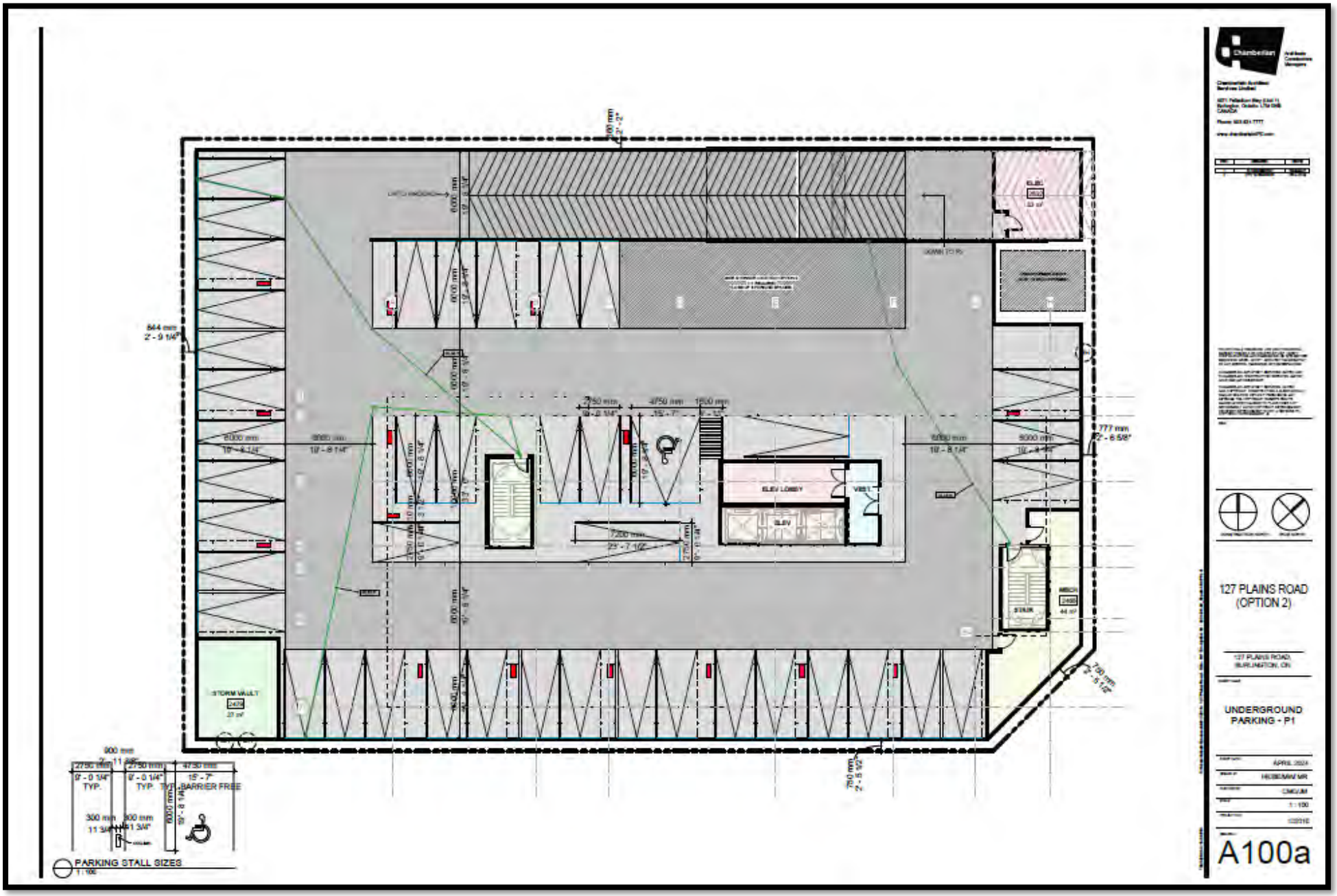
Result summary (day)

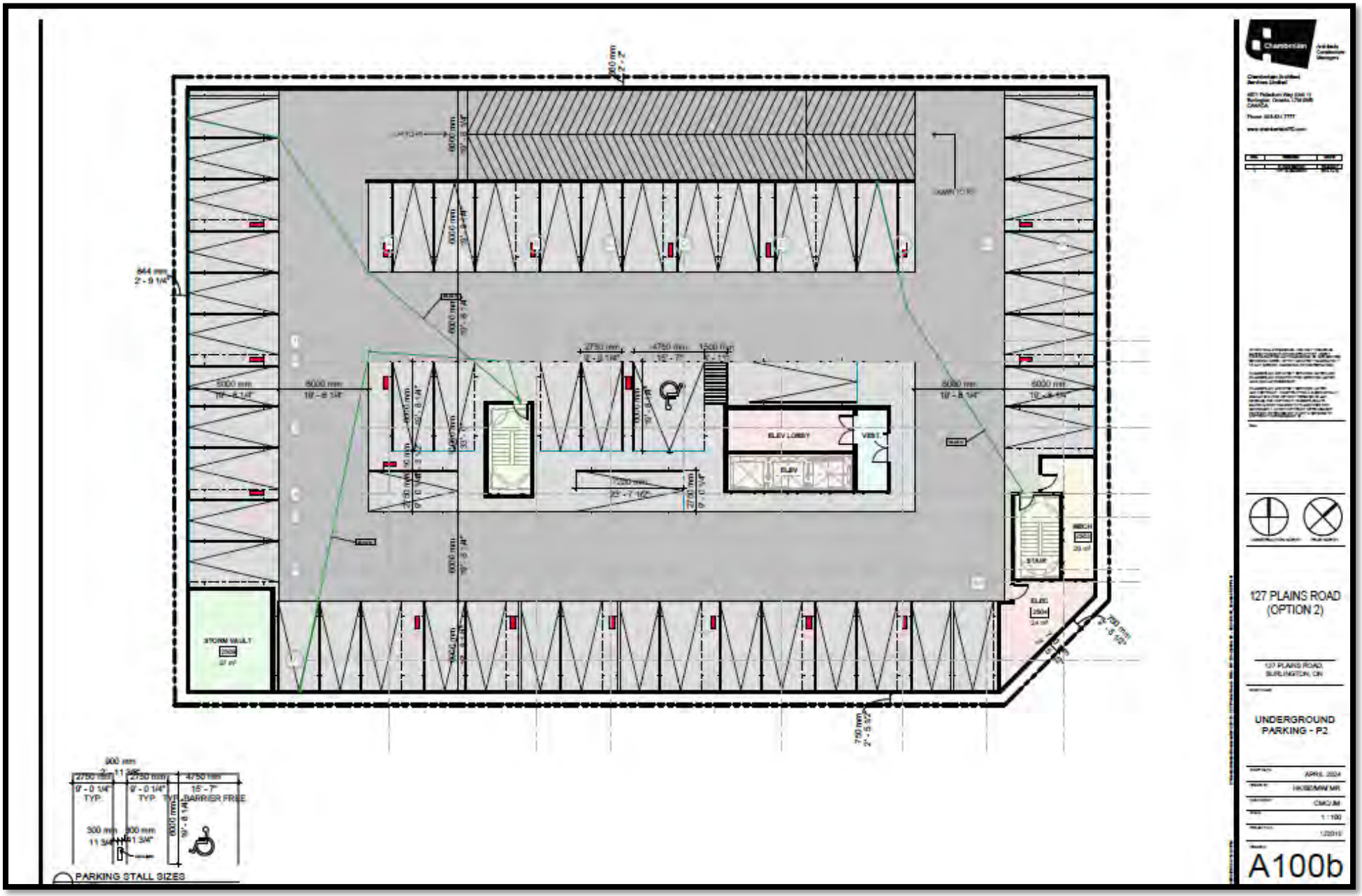
	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	56.07	56.07
2.Howard Rd	1.19	47.12	47.12
Total			56.59 dBA

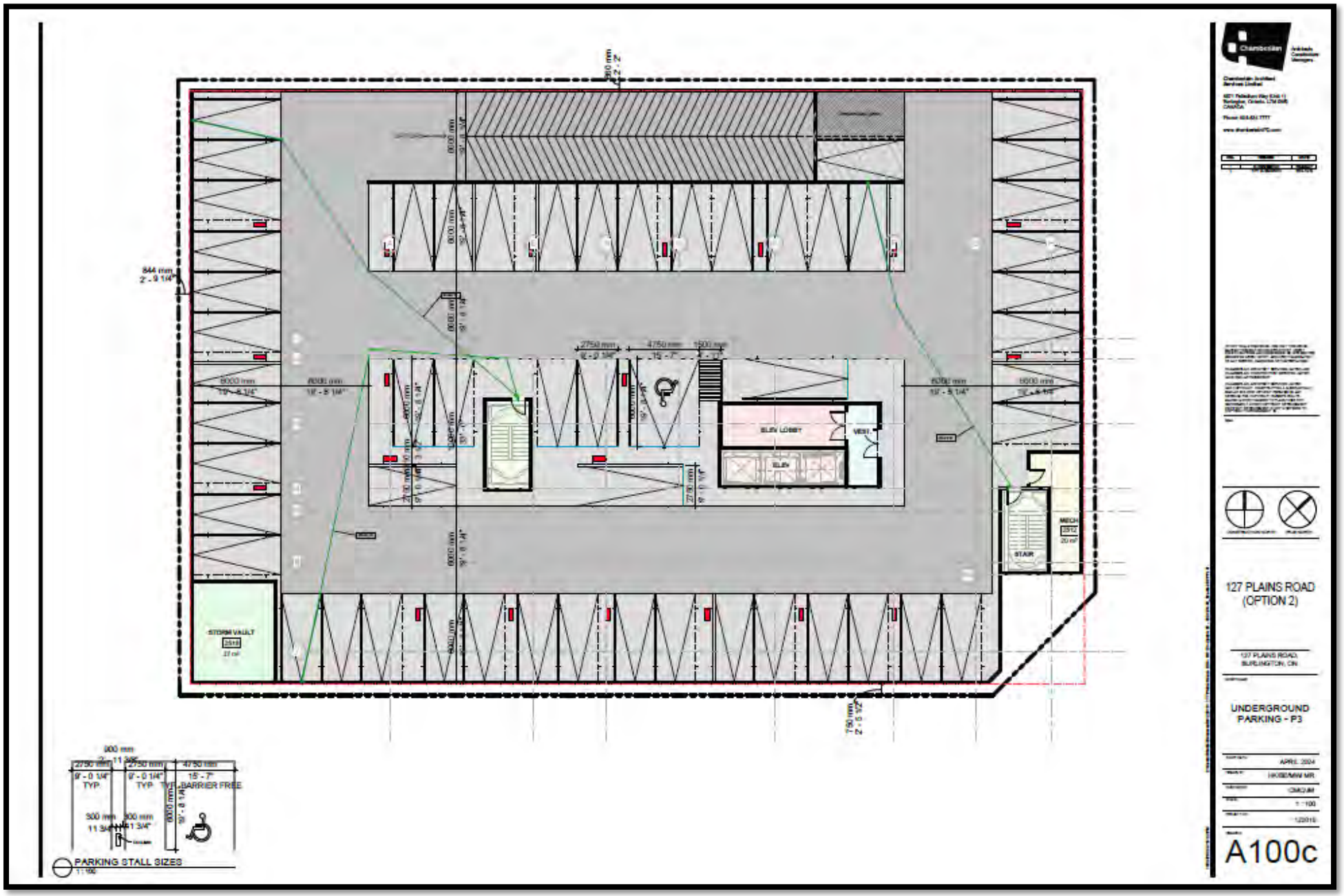
Result summary (night)

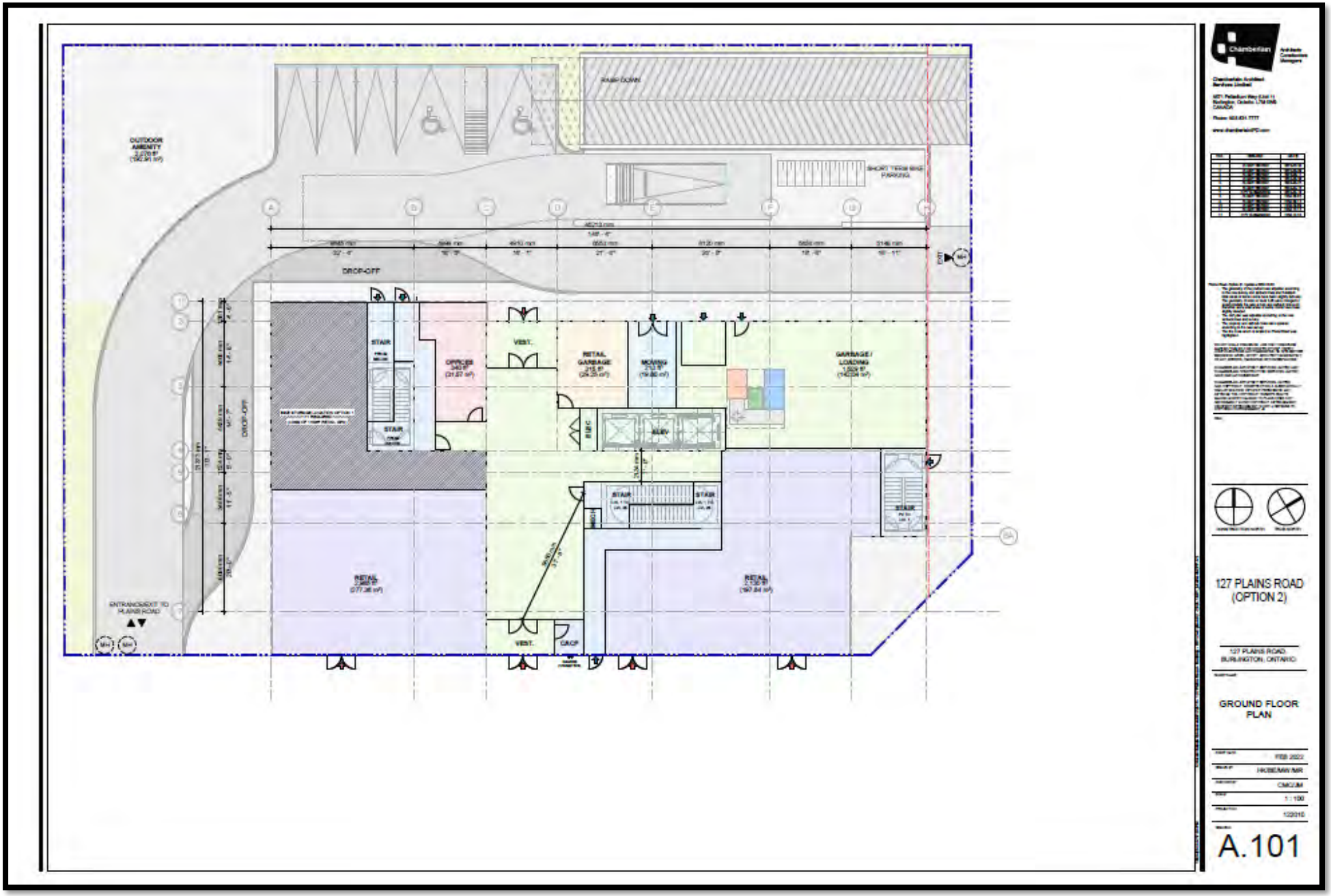
	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.Plains Rd W	1.19	49.55	49.55
2.Howard Rd	1.19	40.55	40.55
Total			50.06 dBA

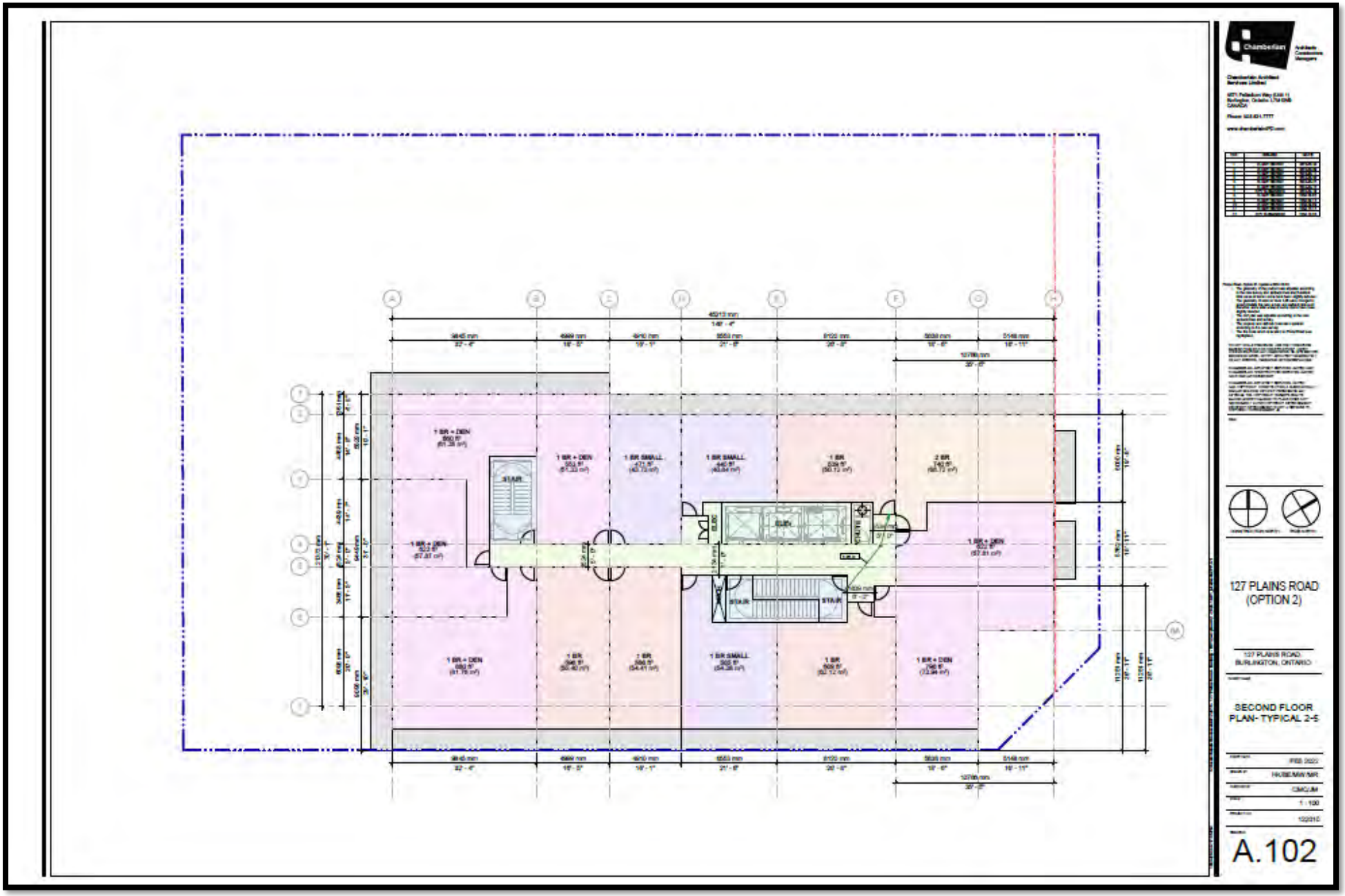
FLOOR PLANS

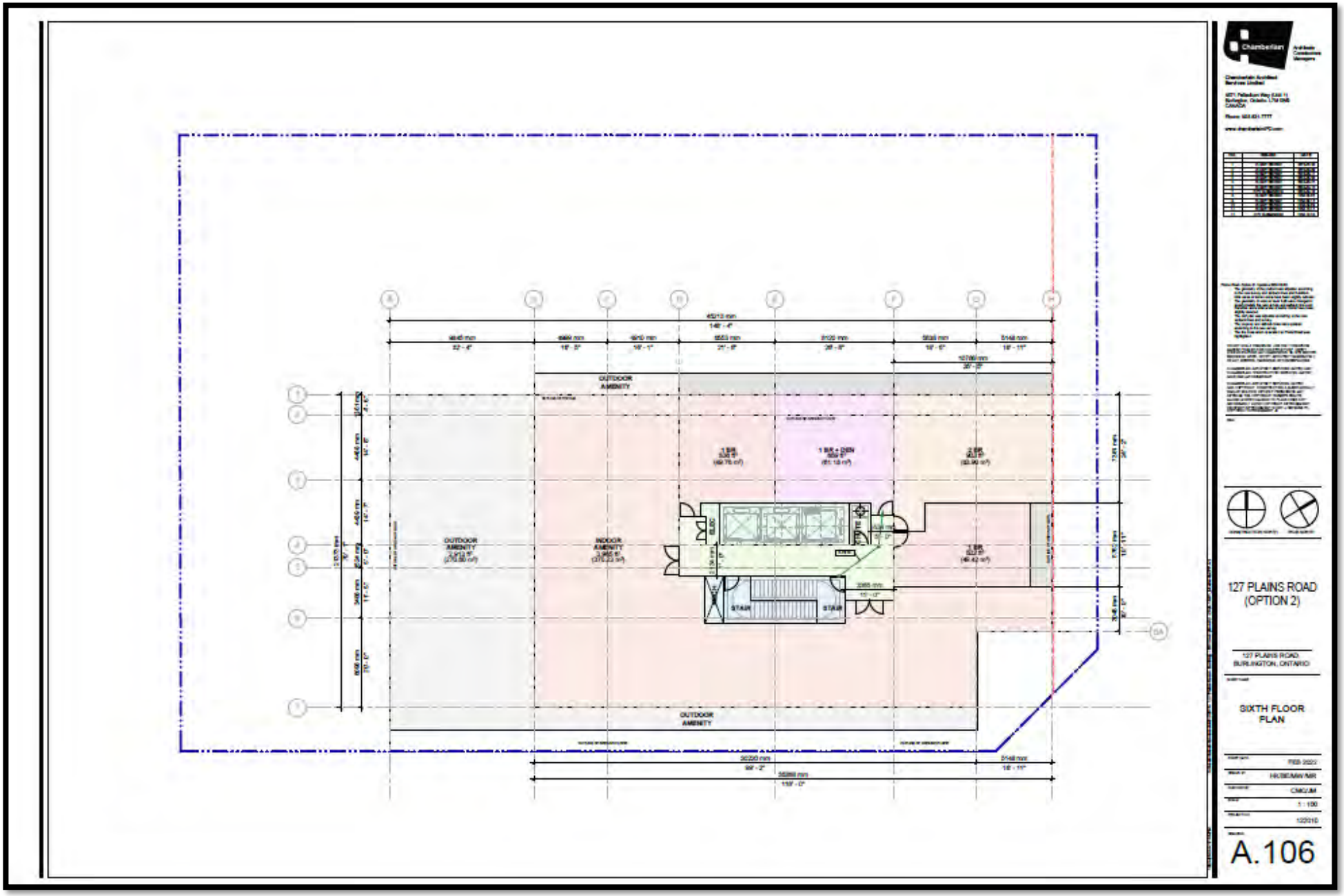

127 PLAINS ROAD
(OPTION 2)
UNDERGROUND
PARKING - P1
A100a
PARKING STALL SIZES
STORM VAULT
ELEV LOBBY
STAIR

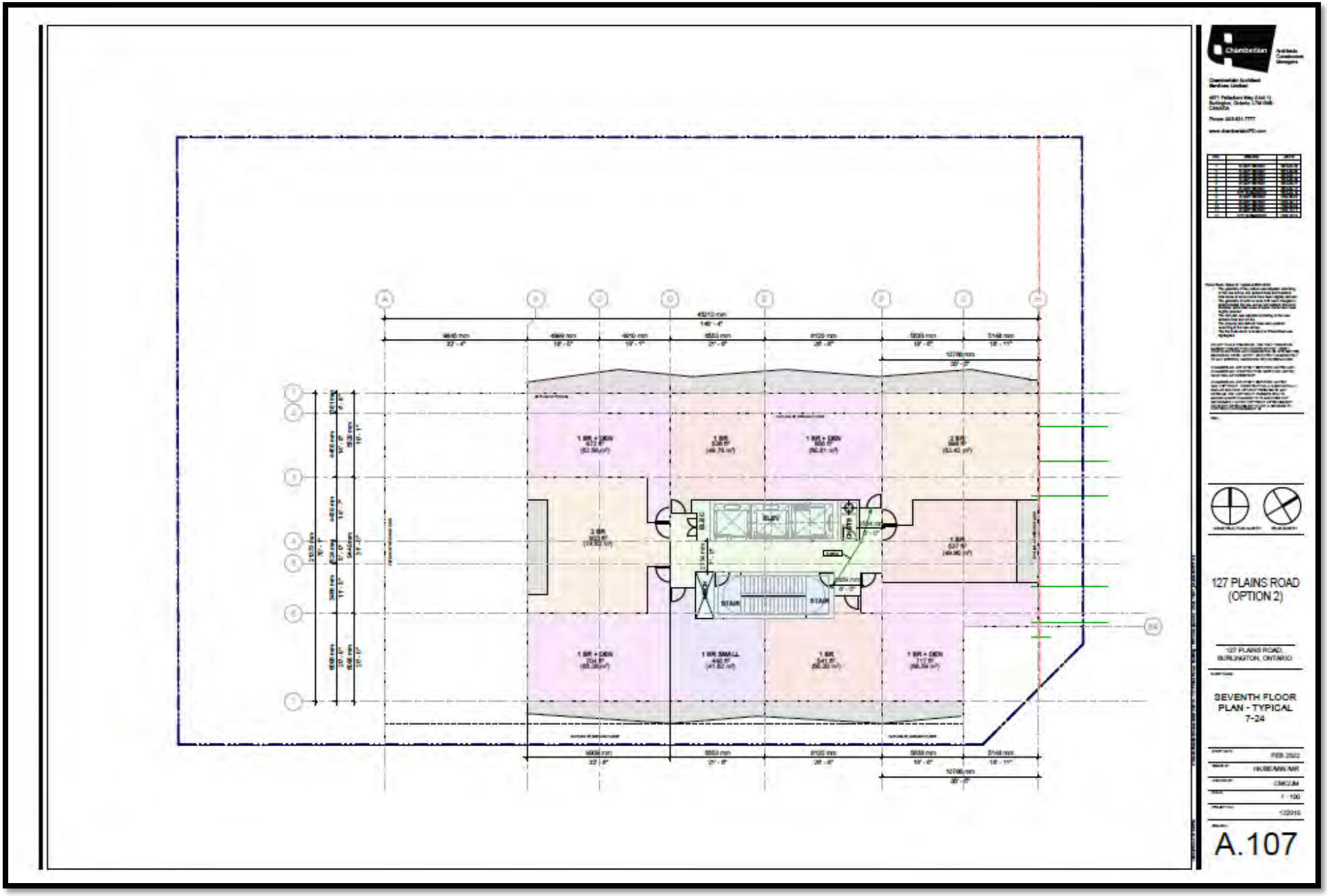

STORM VAULT
ELEV LOBBY
VEST
ELEV
STAIR
MECH
127 PLAINS ROAD
(OPTION 2)
127 PLAINS ROAD,
BURLINGTON, ON
UNDERGROUND
PARKING - P2
APRIL 2024
A100b
PARKING STALL SIZES
2750 mm
9' - 0 1/4"
TYP.
4750 mm
15' - 7"
BARRIER FREE
6000 mm
19' - 8 1/4"

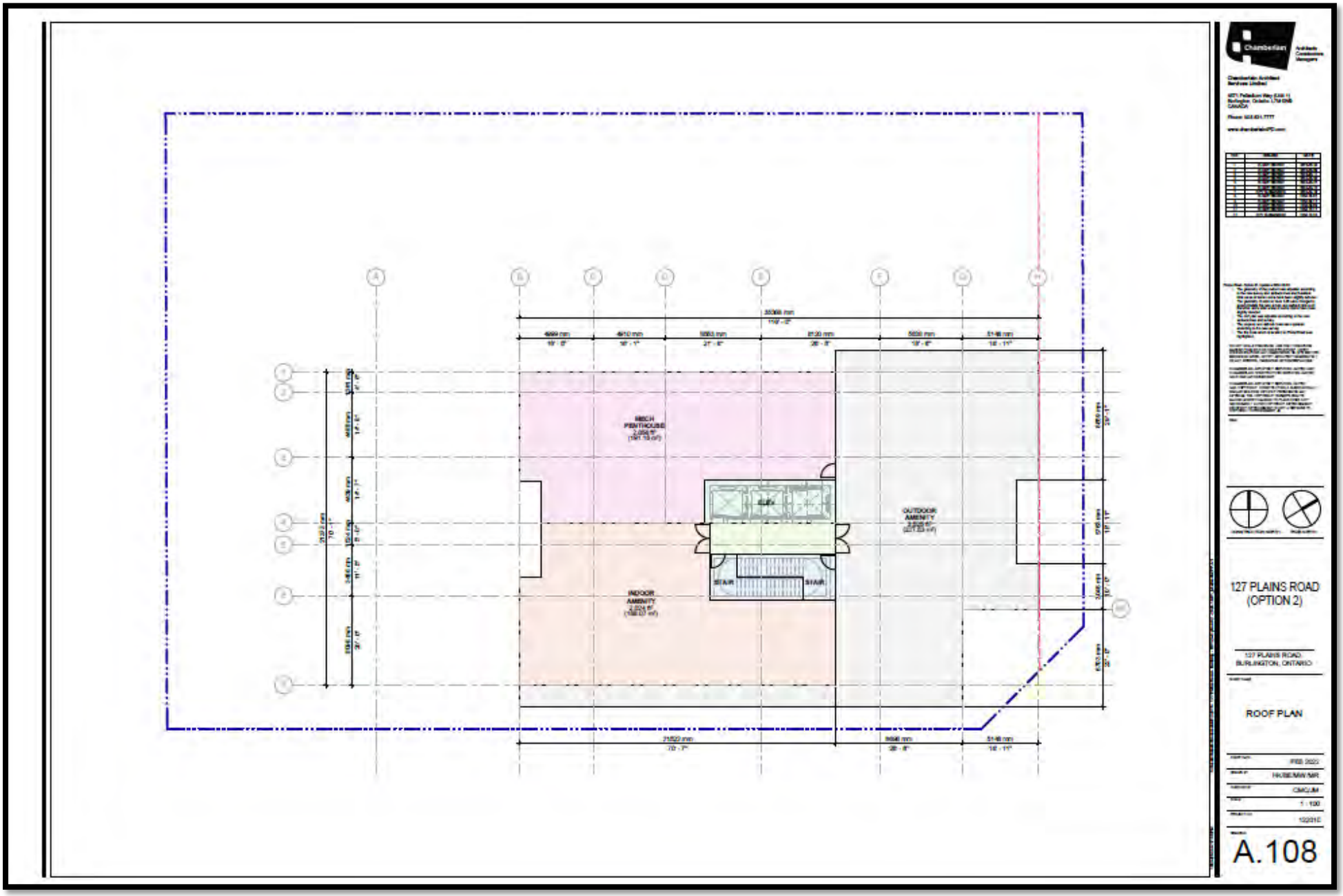

127 PLAINS ROAD
(OPTION 2)
127 PLAINS ROAD,
BURLINGTON, ON
UNDERGROUND
PARKING - P3
APRIL 2024
A100c
PARKING STALL SIZES
STORM VAULT
ELEV LOBBY
ELEV
VEST.
STAIR
MECH


RAMP DOWN
OUTDOOR AMENITY
DROP-OFF
STAIR
OFFICES
VEST.
RETAIL GARBAGE
MOVING
ELEV.
GARBAGE / LOADING
STAIR
RETAIL
RETAIL
VEST.
DROP-OFF
ENTRANCE/EXIT TO PLAINS ROAD
127 PLAINS ROAD (OPTION 2)
127 PLAINS ROAD BURLINGTON, ONTARIO
GROUND FLOOR PLAN
A.101


127 PLAINS ROAD
(OPTION 2)
127 PLAINS ROAD
BURLINGTON, ONTARIO
SECOND FLOOR
PLAN- TYPICAL 2-5
A.102


OUTDOOR AMENITY
INDOOR AMENITY
OUTDOOR AMENITY
OUTDOOR AMENITY
STAIR
STAIR
127 PLAINS ROAD (OPTION 2)
127 PLAINS ROAD BURLINGTON, ONTARIO
SIXTH FLOOR PLAN
A.106

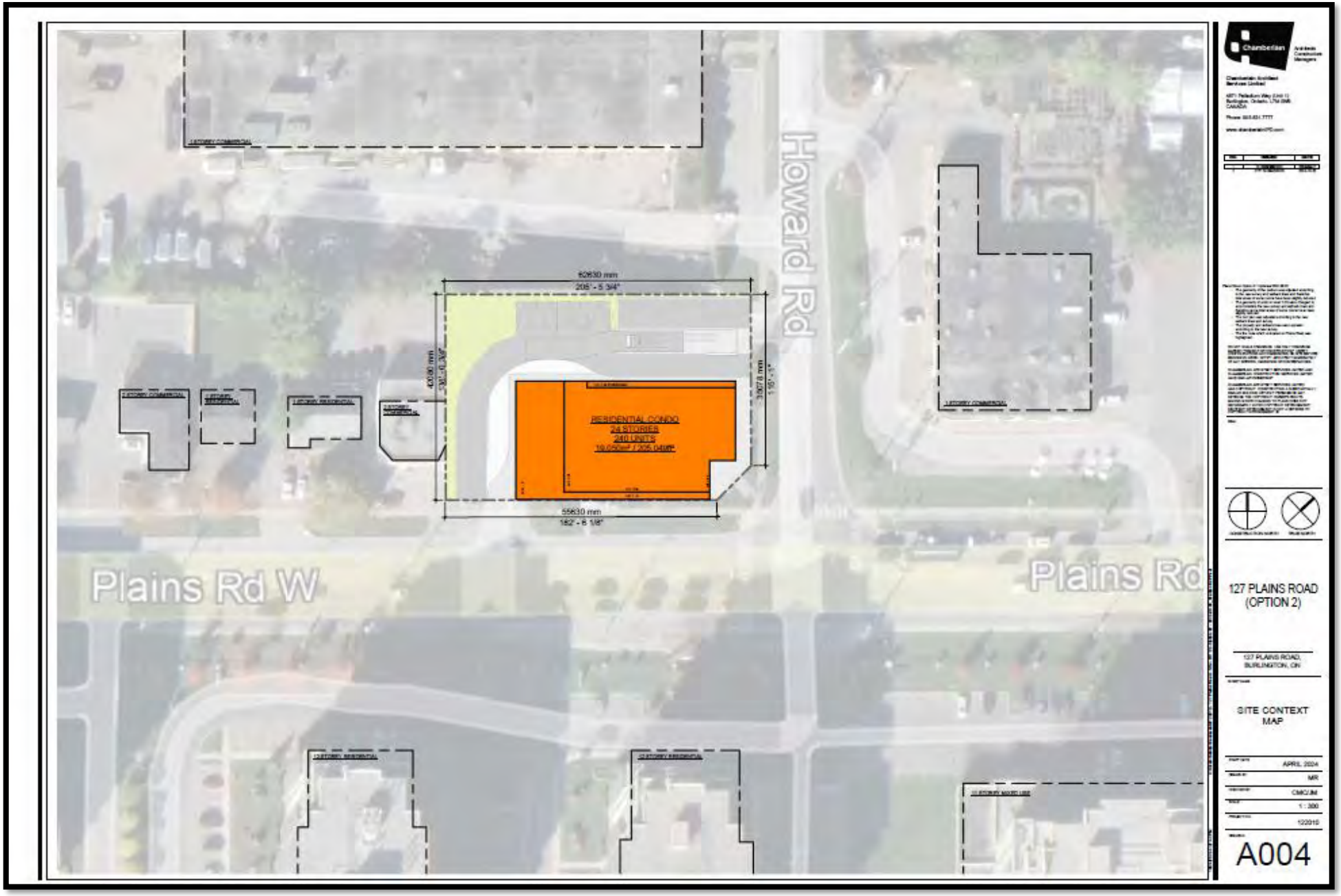

127 PLAINS ROAD
(OPTION 2)
127 PLAINS ROAD,
BURLINGTON, ONTARIO
SEVENTH FLOOR
PLAN - TYPICAL
7-24
A.107


MECH PENTHOUSE
INDOOR AMENITY
OUTDOOR AMENITY
STAIR
STAIR
127 PLAINS ROAD (OPTION 2)
127 PLAINS ROAD BURLINGTON, ONTARIO
ROOF PLAN
A.108

ELEVATIONS


SOUTH ELEVATION
WEST ELEVATION
NORTH ELEVATION
EAST ELEVATION
127 PLAINS ROAD
(OPTION 2)
ELEVATIONS
A.301

SITE CONTEXT MAP


Howard Rd
Plains Rd W
Plains Rd
62630 mm
205' - 5 3/4"
55630 mm
182' - 6 1/8"
RESIDENTIAL CONDO
24 STOREYS
240 UNITS
127 PLAINS ROAD
(OPTION 2)
127 PLAINS ROAD,
BURLINGTON, ON
SITE CONTEXT
MAP
APRIL 2024
MR
CMC/JM
1 : 300
122010
A004

SITE STATISTICS

SITE STATISTICS			
DESCRIPTION	AREA (SM)	AREA (SF)	PERCENTAGE
BUILDING FOOTPRINT			
BUILDING FOOTPRINT	1,017.89 m²	10,956 ft²	39.0%
	1,017.89 m²	10,956 ft²	39.0%
HARD LANDSCAPE			
ASPHALT	815.75 m²	8,781 ft²	31.2%
CURB	30.93 m²	333 ft²	1.2%
PAVER STONES	115.24 m²	1,240 ft²	4.4%
SIDEWALK	328.55 m²	3,536 ft²	12.6%
	1,290.47 m²	13,890 ft²	49.4%
SOFT LANDSCAPE			
LANDSCAPE	304.83 m²	3,281 ft²	11.7%
	304.83 m²	3,281 ft²	11.7%
	2,613.18 m²	28,128 ft²	100.0%
OVERALL SITE	2,610.93 m²	28,104 ft²	100.0%

PARKING SCHEDULE - FLOOR		
Type	DESCRIPTION	COUNT
T/O GROUND FLOOR		
ACCESSIBLE PARKING	4.75M X 6.0M	2
TYPICAL PARKING	2.75M X 6.0M	3
		5
T/O P1		
ACCESSIBLE PARKING	4.75M X 6.0M	1
PARALLEL PARKING	2.75M X 7.2M	2
TYPICAL PARKING	2.75M X 6.0M	45
		48
T/O P2		
ACCESSIBLE PARKING	4.75M X 6.0M	1
PARALLEL PARKING	2.75M X 7.2M	2
TYPICAL PARKING	2.75M X 6.0M	50
		53
T/O P3		
ACCESSIBLE PARKING	4.75M X 6.0M	1
PARALLEL PARKING	2.75M X 7.2M	2
TYPICAL PARKING	2.75M X 6.0M	51
		54
		160

AMENITY SPACES			
Name	Count	Area (m²)	Area (ft²)
INDOOR AMENITY			
INDOOR AMENITY	2	558 m²	6009 ft²
		558 m²	6009 ft²
OUTDOOR AMENITY			
OUTDOOR AMENITY	4	806 m²	8675 ft²
		806 m²	8675 ft²
PRIVATE AMENITY			
BALCONY	248	2590 m²	27874 ft²
		2590 m²	27874 ft²
		3954 m²	42558 ft²

UNIT MATRIX - PER LEVEL

Name	AREA SF	Count	%
LVL 2			
1 BR	539 ft² ... 669 ft²	4	1.7%
1 BR + DEN	553 ft² ... 880 ft²	6	2.5%
1 BR SMALL	440 ft² ... 585 ft²	3	1.3%
2 BR	740 ft²	1	0.4%
		14	5.8%
LVL 3			
1 BR	539 ft² ... 669 ft²	4	1.7%
1 BR + DEN	553 ft² ... 880 ft²	6	2.5%
1 BR SMALL	440 ft² ... 585 ft²	3	1.3%
2 BR	740 ft²	1	0.4%
		14	5.8%
LVL 4			
1 BR	539 ft² ... 669 ft²	4	1.7%
1 BR + DEN	553 ft² ... 880 ft²	6	2.5%
1 BR SMALL	440 ft² ... 585 ft²	3	1.3%
2 BR	740 ft²	1	0.4%
		14	5.8%
LVL 5			
1 BR	539 ft² ... 669 ft²	4	1.7%
1 BR + DEN	553 ft² ... 880 ft²	6	2.5%
1 BR SMALL	440 ft² ... 585 ft²	3	1.3%
2 BR	740 ft²	1	0.4%
		14	5.8%
LVL 6			
1 BR	532 ft² ... 536 ft²	2	0.8%
1 BR + DEN	659 ft²	1	0.4%
2 BR	903 ft²	1	0.4%
		4	1.7%
LVL 7			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%

UNIT MATRIX - PER LEVEL

Name	AREA SF	Count	%
LVL 8			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 9			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 10			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 11			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 12			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 13			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%

UNIT MATRIX - PER LEVEL

Name	AREA SF	Count	%
LVL 14			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 15			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 16			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 17			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 18			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 19			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%

UNIT MATRIX - PER LEVEL

Name	AREA SF	Count	%
LVL 20			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 21			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 22			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 23			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
LVL 24			
1 BR	536 ft² ... 541 ft²	3	1.3%
1 BR + DEN	655 ft² ... 717 ft²	4	1.7%
1 BR SMALL	448 ft²	1	0.4%
2 BR	803 ft² ... 898 ft²	2	0.8%
		10	4.2%
Grand total: 240		240	100.0%

EXTERIOR WALL STC RATINGS

EXTERIOR WALL STC RATINGS

Wall Configuration	EW1	EW2	EW3	EW4	EW1R	EW2R	EW3R	EW5	EW4R	EW6	EW7 EW5R	EW8
STC Rating	**38**	**40**	**43**	**46**	**47**	**48**	**49**	**54**	**55**	**57**	**58**	**62**

Source: National Research Council, Division of Building Research

NOTES:

1 The common structure of walls EW1 to EW5 is composed of 12.7mm gypsum board, vapour barrier and 38x89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in inter-stud cavities.

- EW1 denotes the common structure, plus sheathing, plus wood siding or metal siding and fibre backer board
- EW2 denotes the common structure, plus rigid insulation (25 to 30 mm), and wood siding or metal siding and fibre backer board.
- EW3 denotes simulated mansard with the common structure, plus sheathing, 28 X89 mm framing, sheathing and asphalt roofing material
- EW4 denotes the common structure, plus sheathing and 20 mm stucco.
- EW5 denotes the common structure, plus sheathing, 25 mm air space, 100mm brick veneer.
- EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25 to 50 mm), 100 mm back-up block 100 mm face brick.
- EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25 to 50 mm), 140mm back-up block, 100 mm face brick.
- EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25 to 50 mm), 200 mm concrete.

2 R signifies the mounting of the interior gypsum board on resilient clips.

3 An exterior wall conforming to rainscreen design principles and composed of 12.7 mm gypsum board, 100 mm concrete block, rigid insulation (25 to 50 mm), 25 mm air space, and 100 mm brick veneer has the same STC as EW6.

4 An exterior wall described in EW1 with the addition of rigid insulation (25 to 50 mm) between the sheathing and the external finish has the same STC as EW2.

APPENDIX "B"

HVAC UNITS NEARBY

MISCELLANEOUS ENGINEERING DATA

LENNOX

Expanded Sound Data

Current Product Only

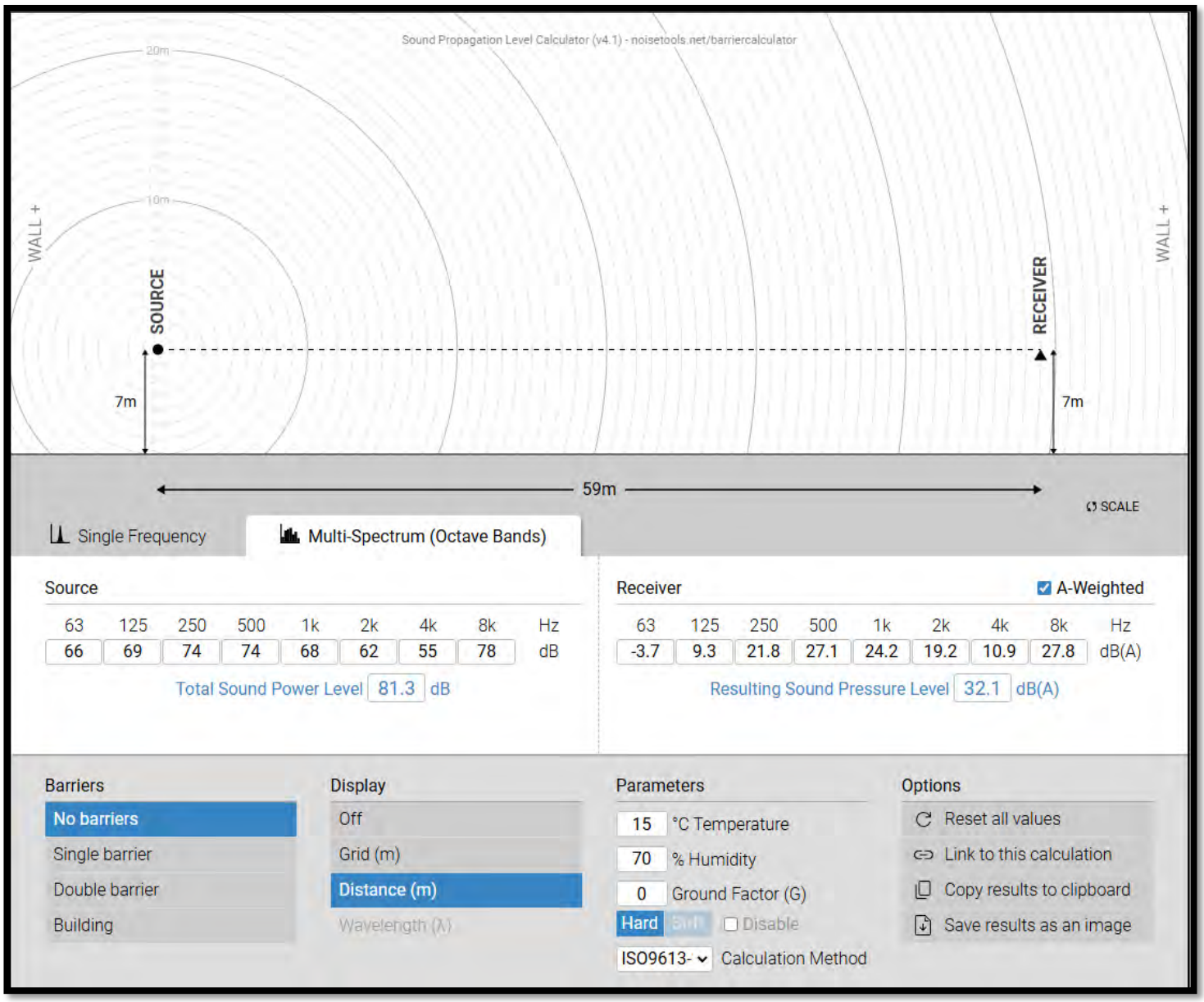
RESIDENTIAL / COMMERCIAL PRODUCT SPECIFICATIONS

Bulletin No. X000121
June 2023
Supersedes March 2023

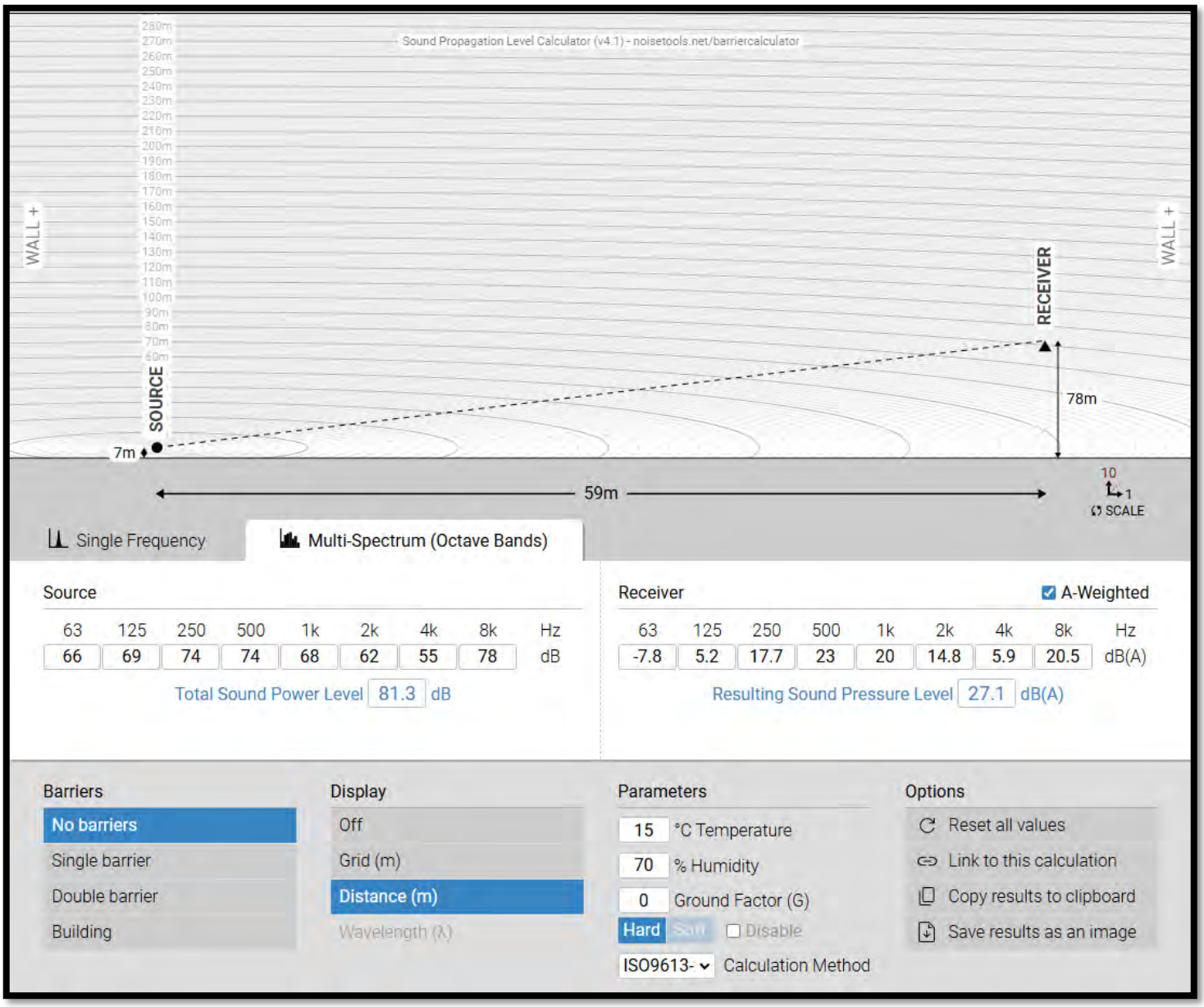
ROOFTOP UNITS — 2 TO 6 TONS

[2] Test Conditions		External Static Pressure in. w.c.	CFM	Octave Band Sound Power Levels dBA, re 10^{-12} Watts, Center Frequency - Hz								[1] Sound Rating Number (dBA)
				[3] 63	125	250	500	1000	2000	4000	8000	
LCM/LGM												
Outdoor Sound Levels	LCM/LGM036U	- - -	- - -	60	65	69	68	63	58	51	73	73
	LCM/LGM048U	- - -	- - -	64	67	73	71	66	59	52	76	76
	LCM/LGM060U	- - -	- - -	66	69	74	74	68	62	55	78	78
	LCM/LGM074U	- - -	- - -	67	72	76	76	70	64	58	80	80

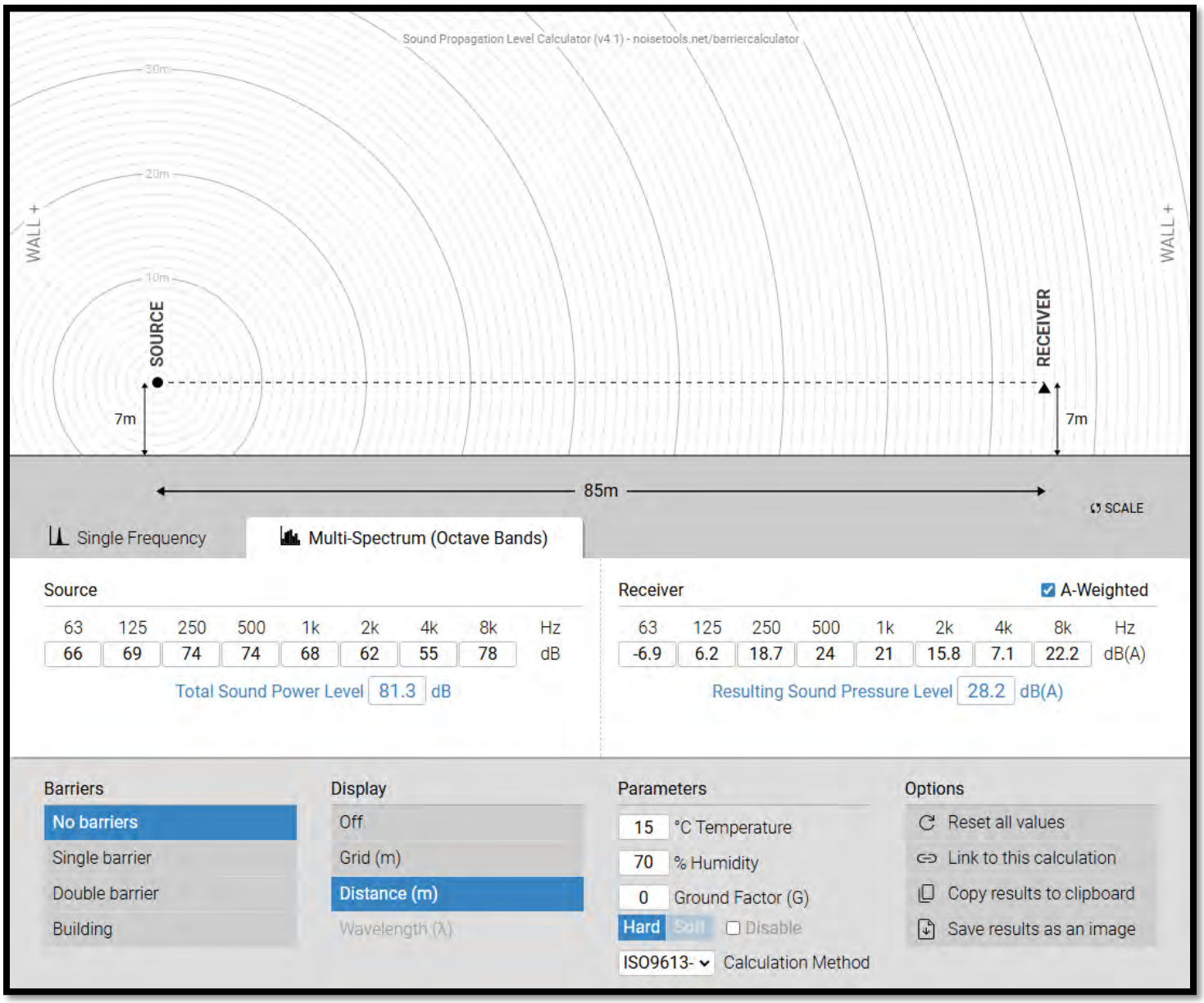
SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNIT 1 (59M AWAY)
2ND FLOOR RESIDENTIAL 7M



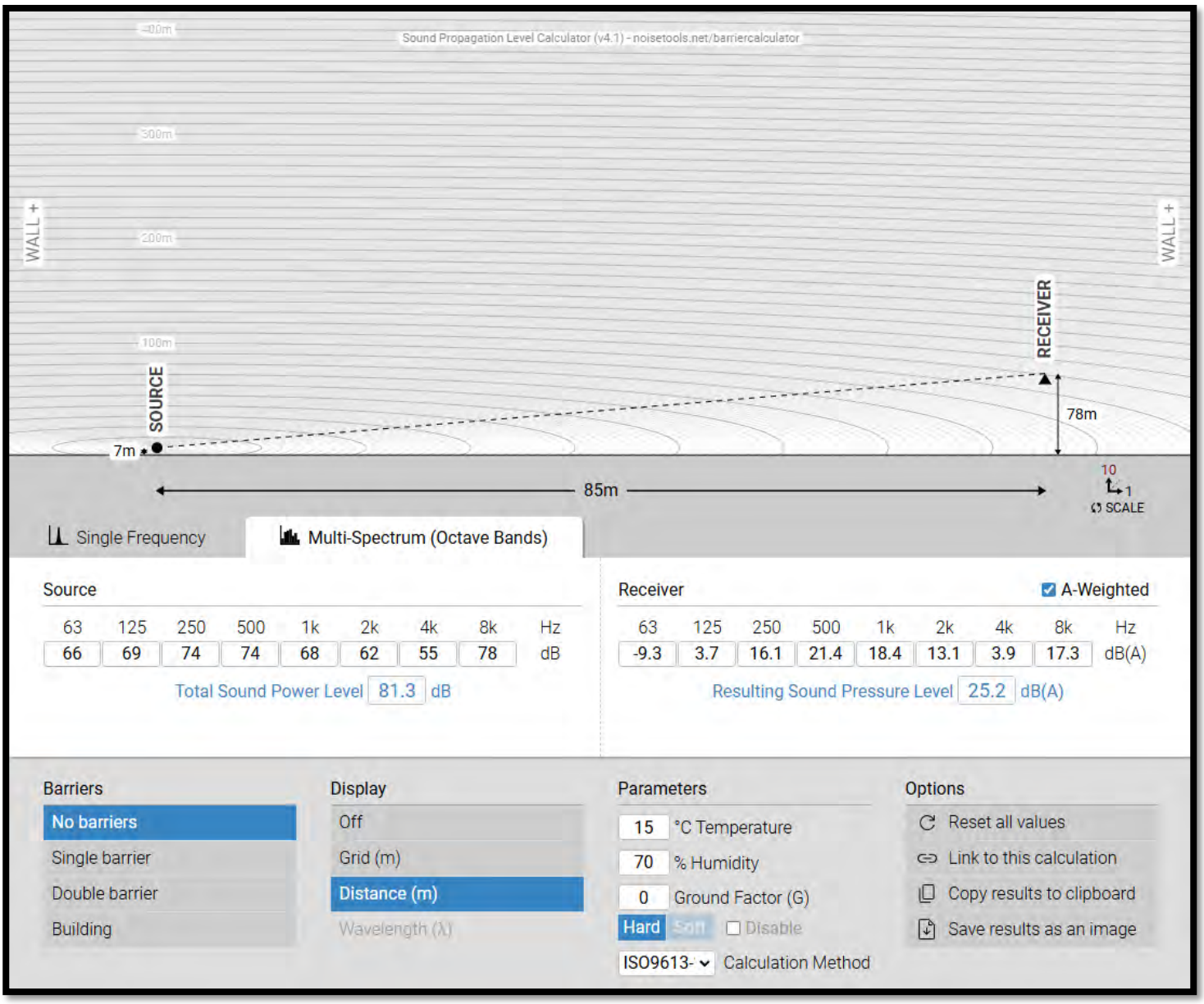
SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNIT 1 (59M AWAY)
24TH FLOOR RESIDENTIAL 78M



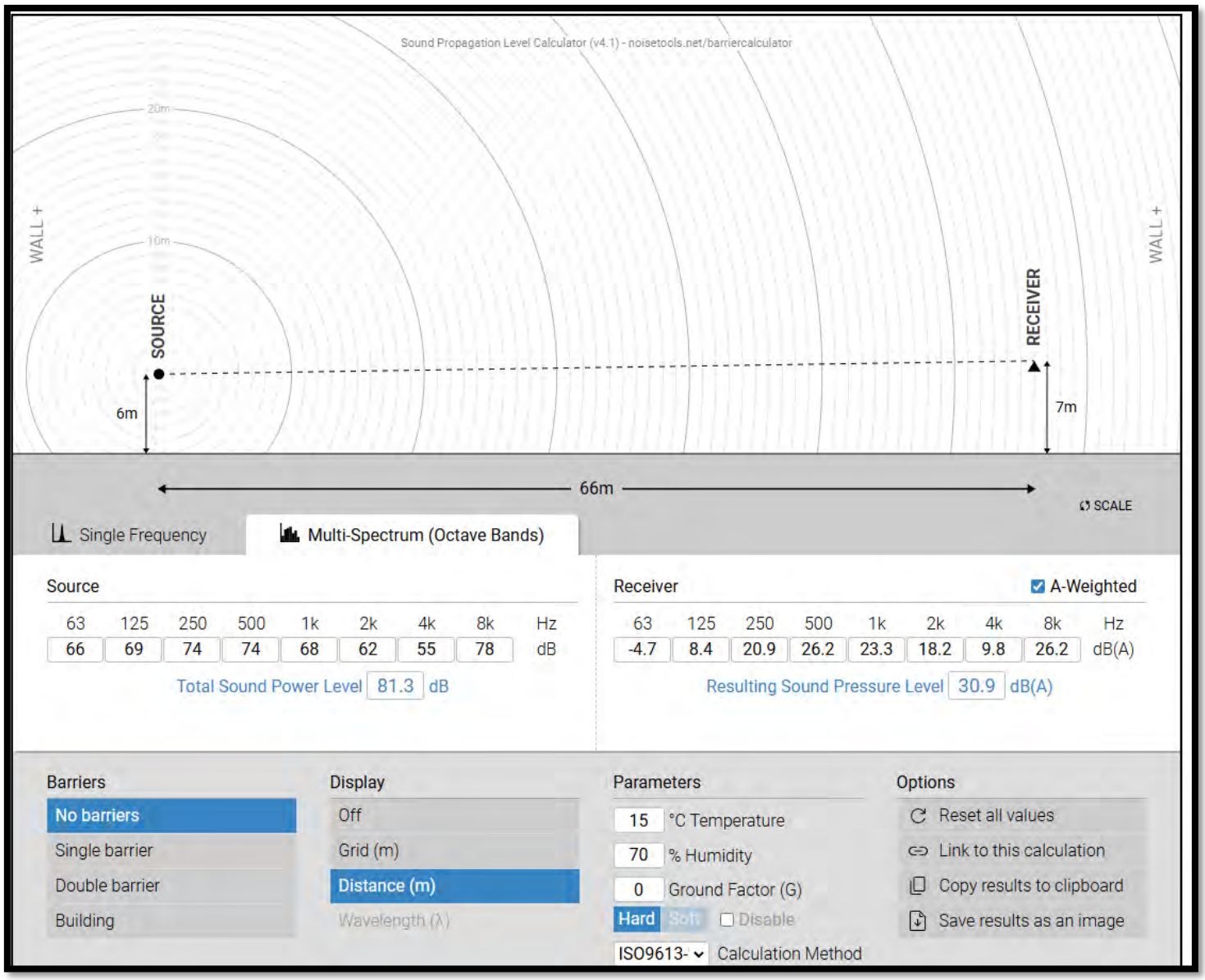
SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNITS 2-4 (85M AWAY)
2ND FLOOR RESIDENTIAL 7M



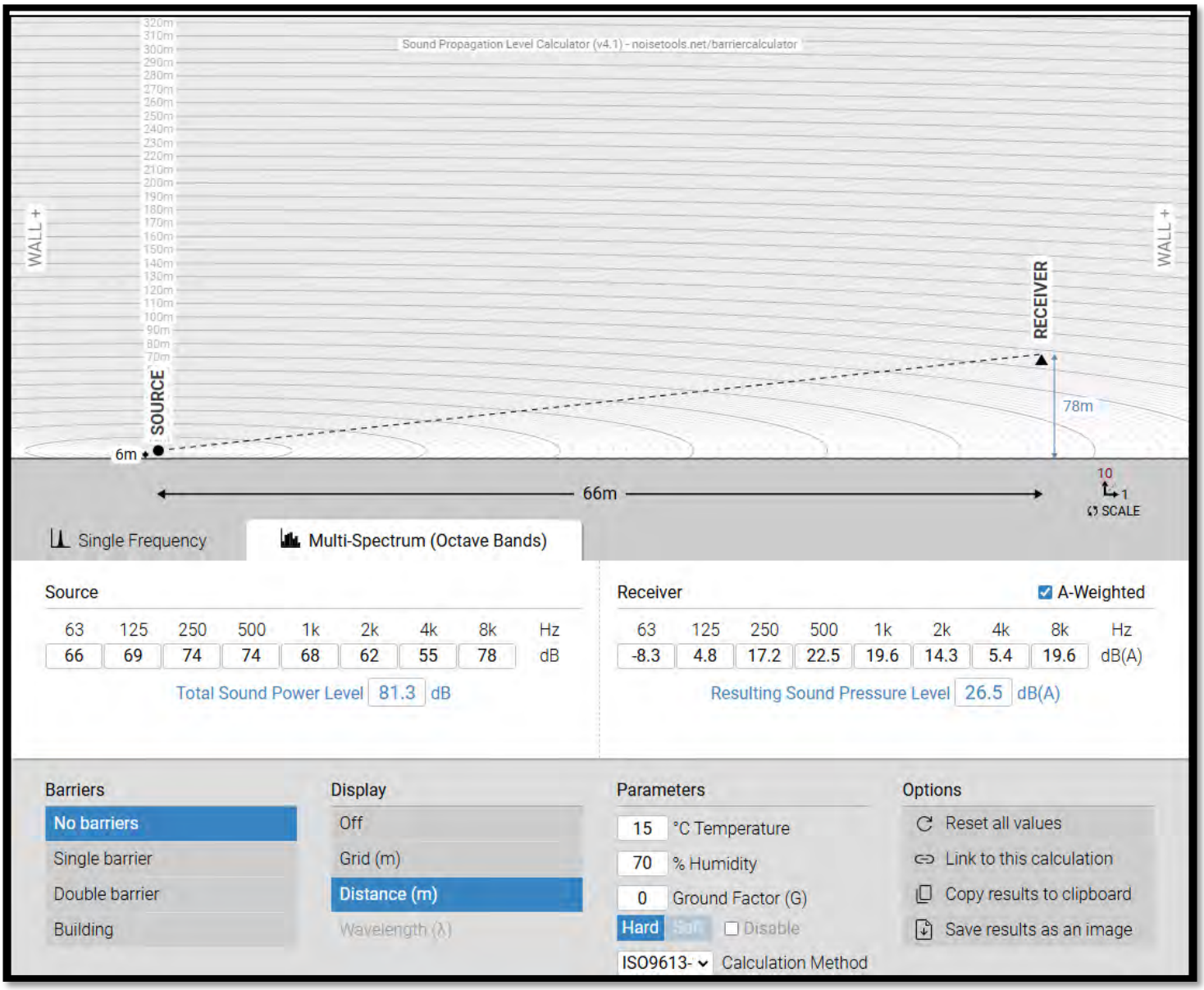
SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNITS 2-4 (85M AWAY)
24TH FLOOR RESIDENTIAL 78M



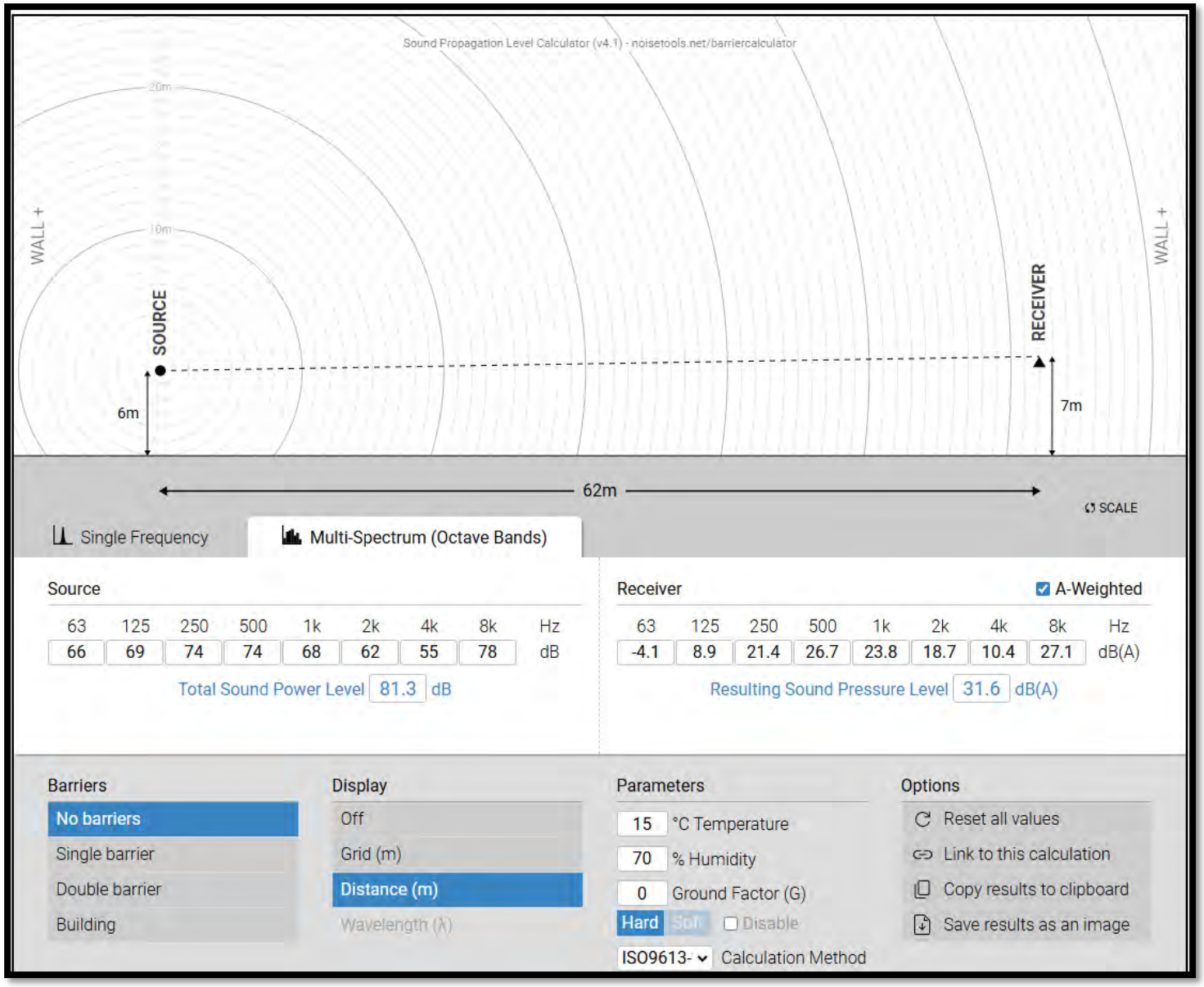
SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNIT 5 (66M AWAY)
2ND FLOOR RESIDENTIAL 7M



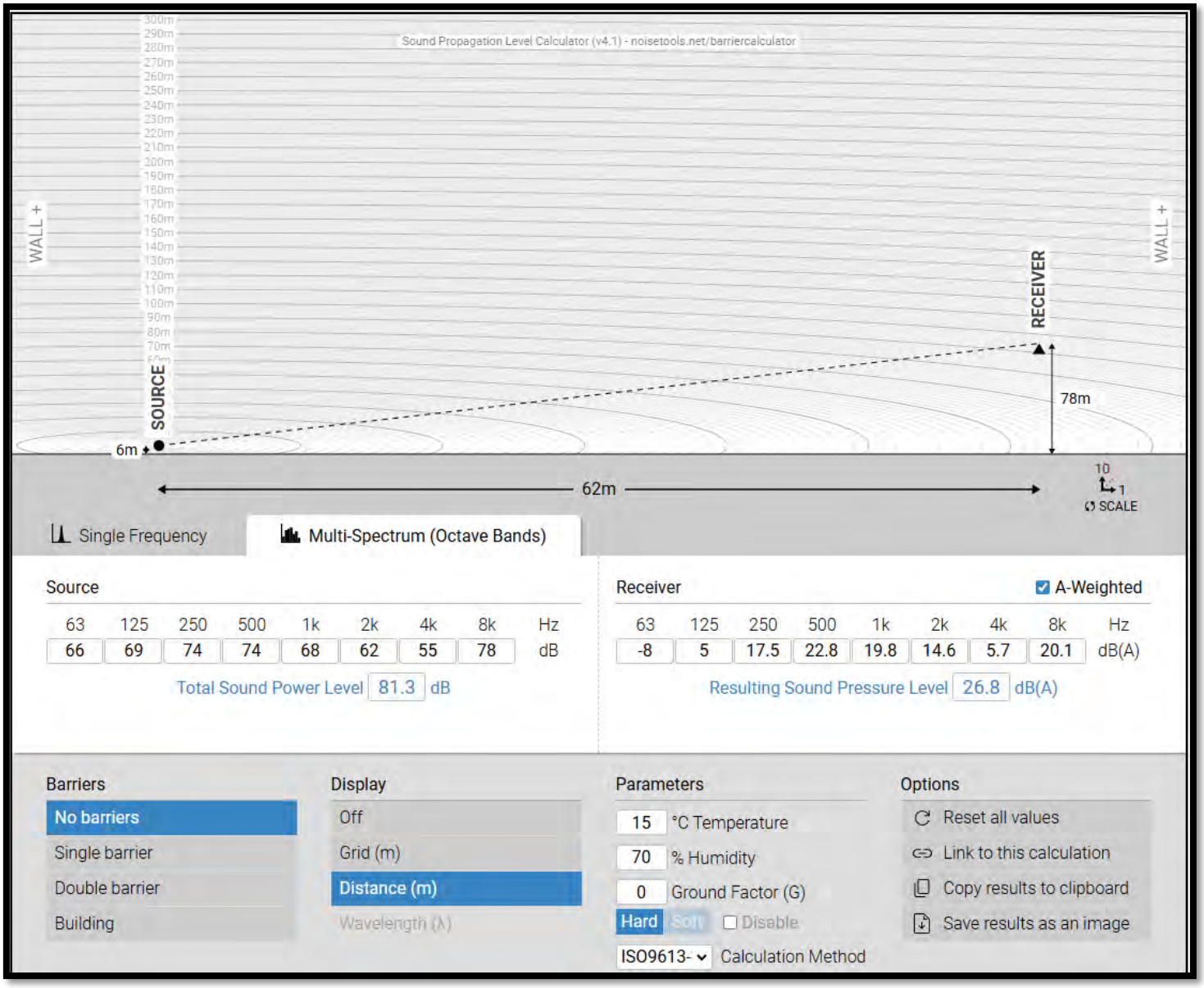
SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNIT 5 (66M AWAY)
24TH FLOOR RESIDENTIAL 78M



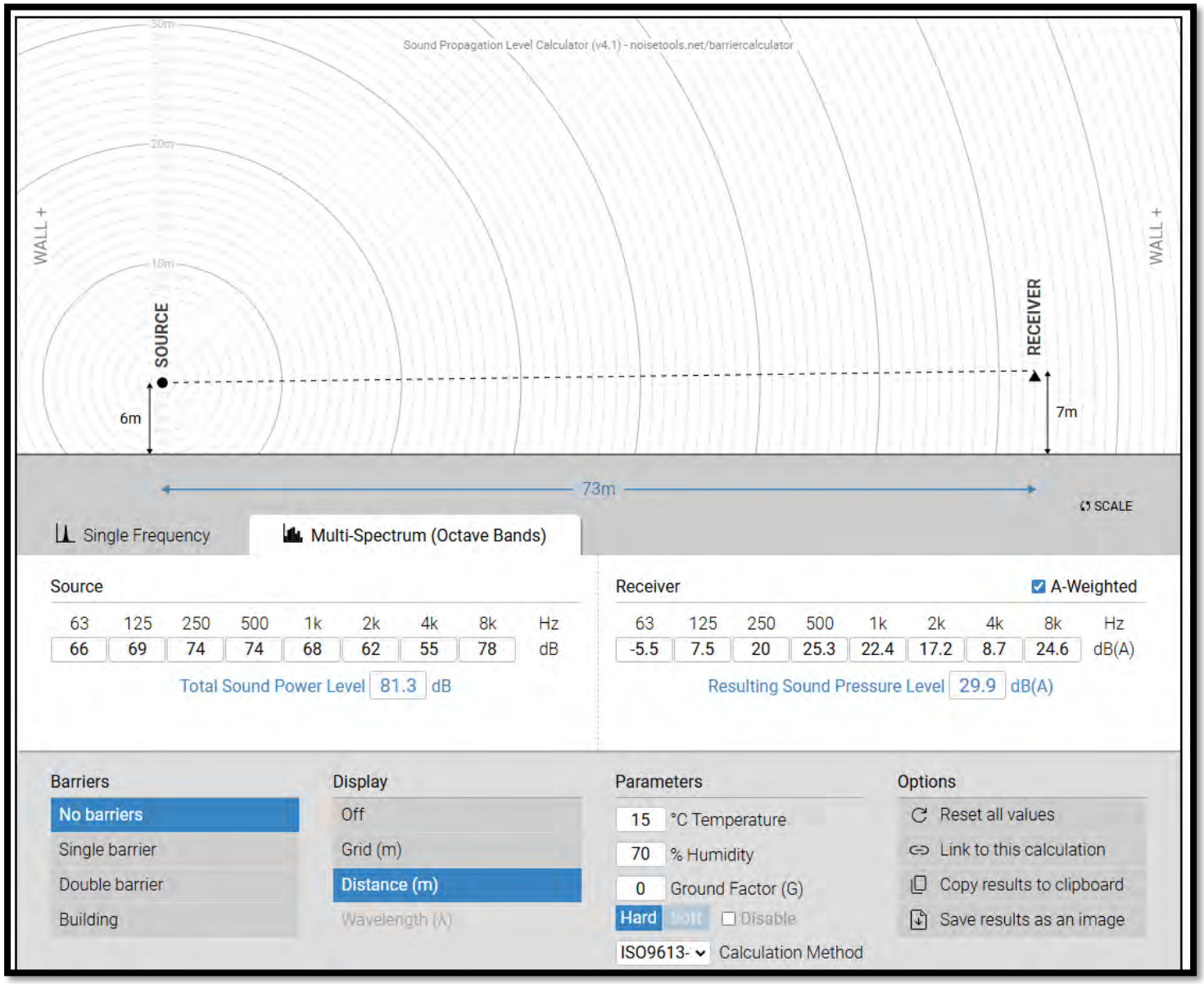
SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNIT 6 & 7 (62M)
2ND FLOOR RESIDENTIAL 7M



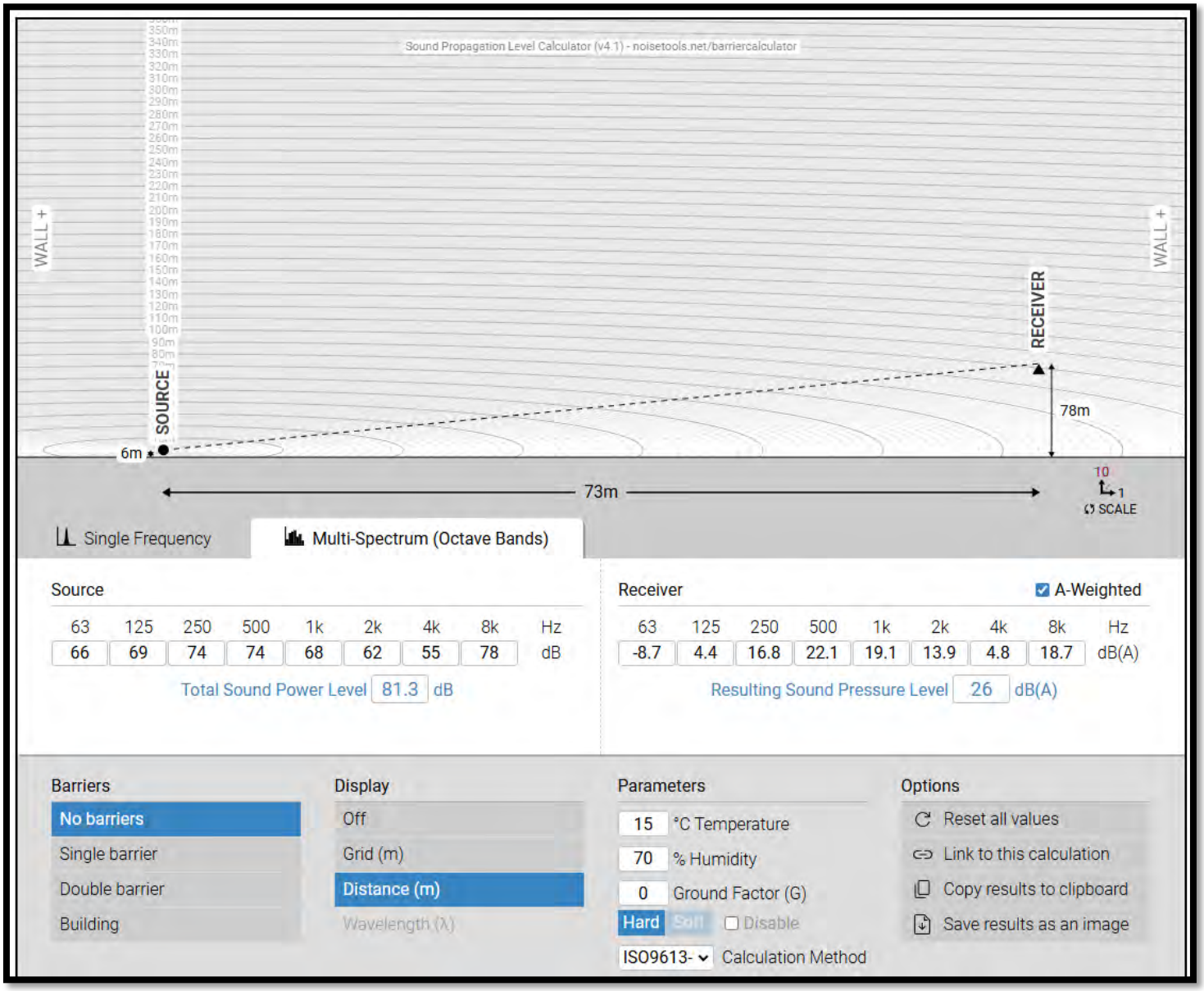
SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNIT 6 & 7 (62M AWAY)
24TH FLOOR RESIDENTIAL 78M



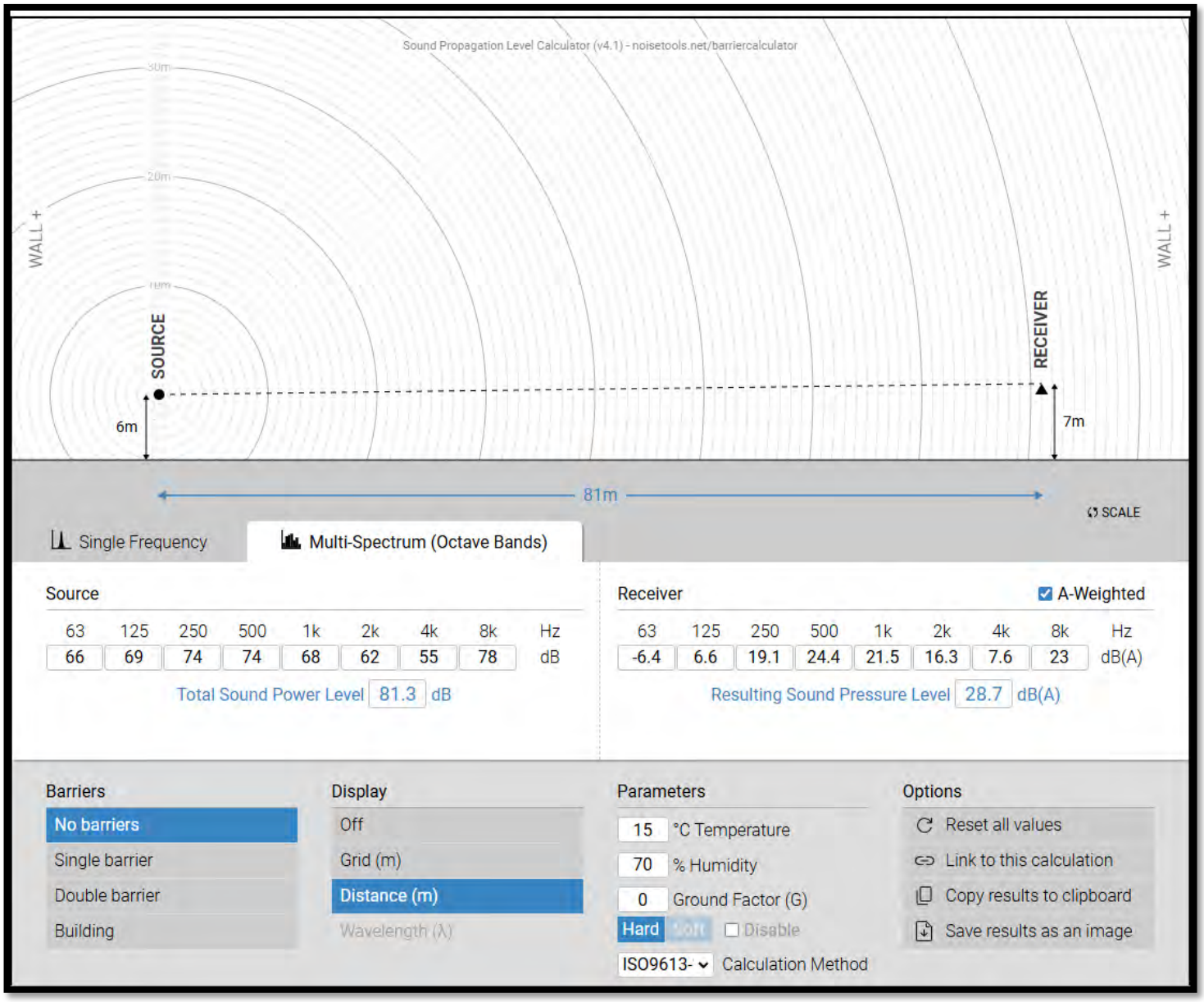
SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNIT 8 (73M AWAY)
2ND FLOOR RESIDENTIAL 7M



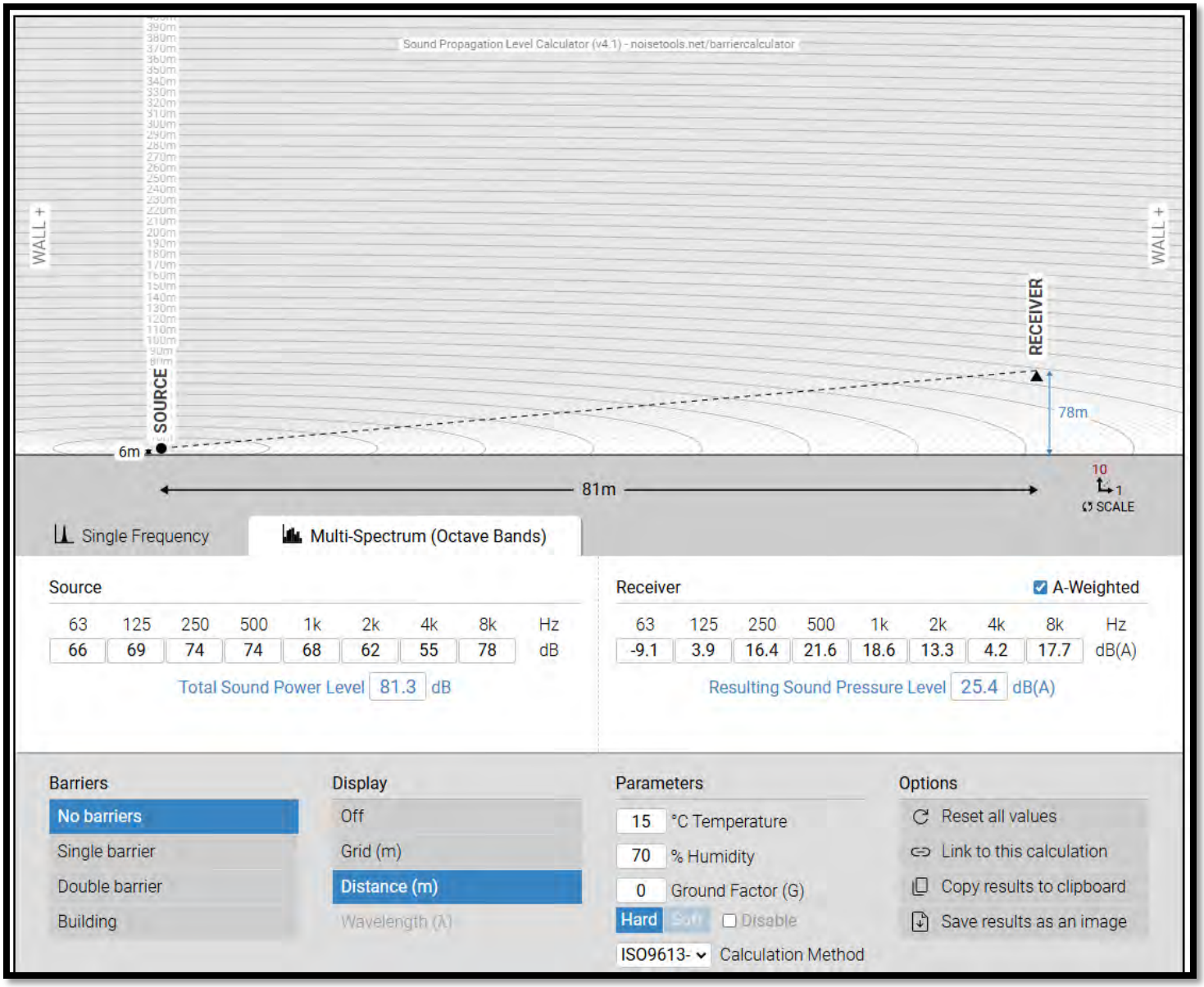
SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNIT 8 (73M AWAY)
24TH FLOOR RESIDENTIAL 78M



SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNITS 9 & 10 (81M AWAY)
2ND FLOOR RESIDENTIAL 7M

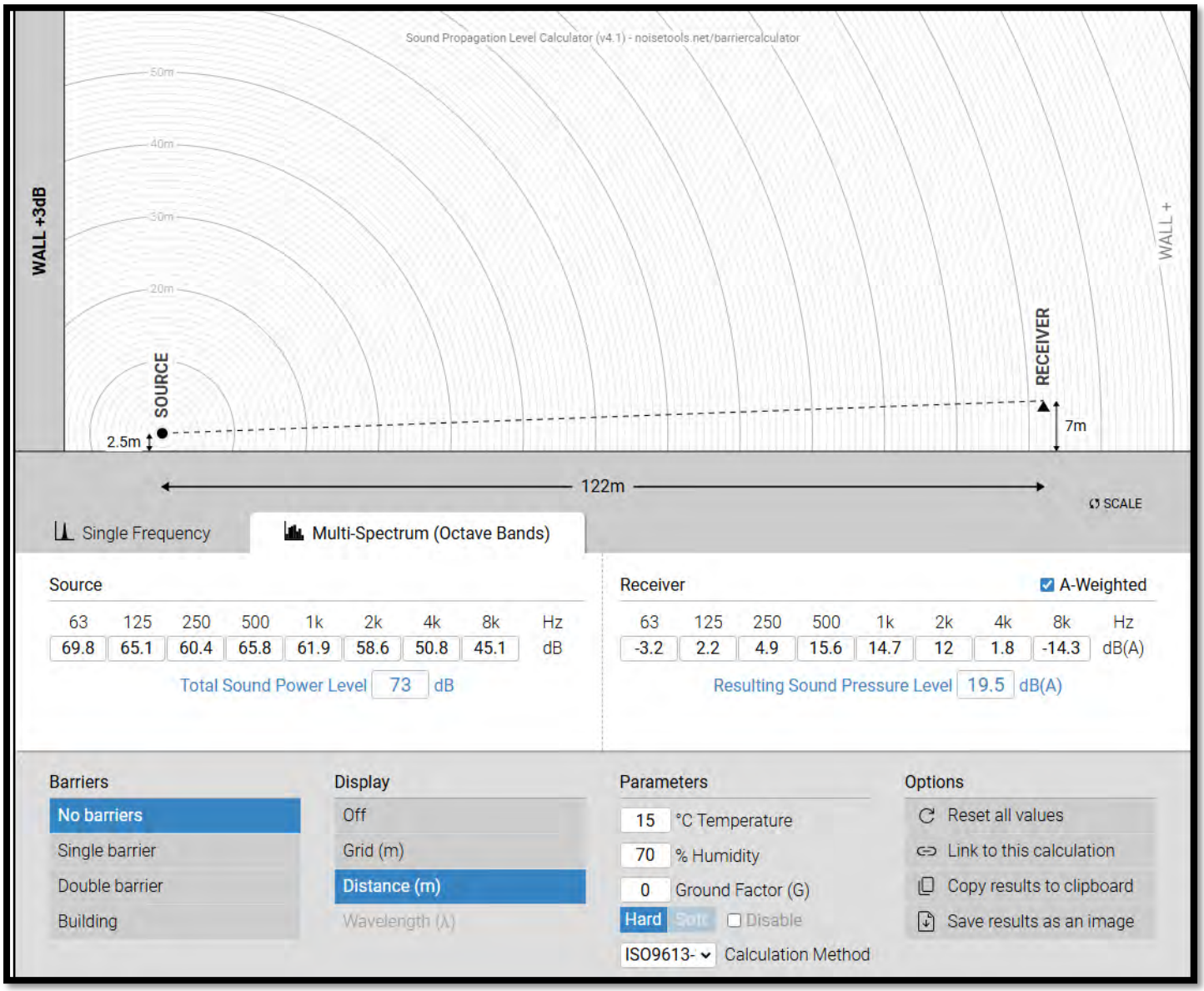


SOUND PROPAGATION LEVEL
5-TON ROOFTOP HVAC UNITS 9 & 10 (81M AWAY)
24TH FLOOR RESIDENTIAL 78M

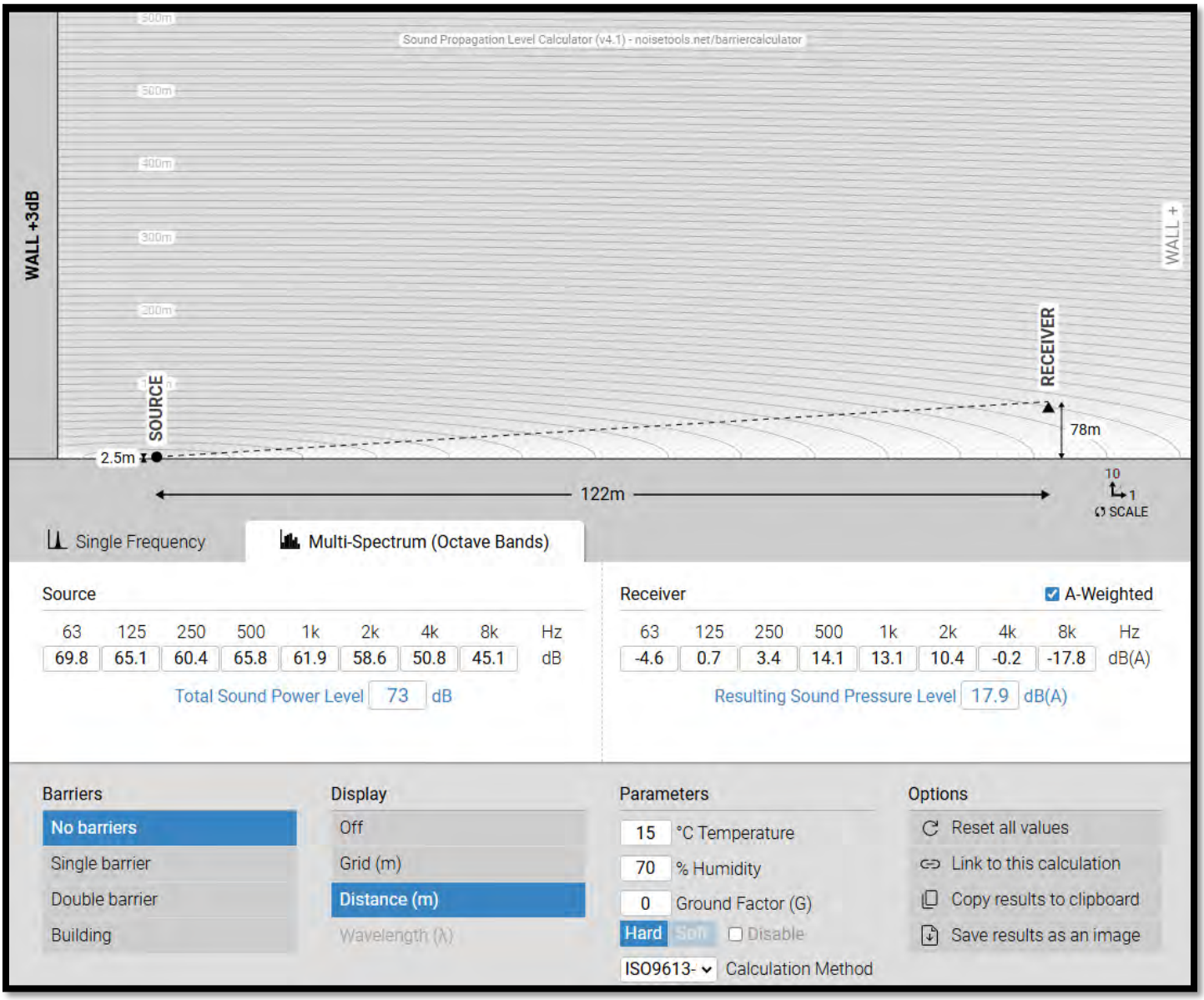


REFRIGERATED TRUCKS

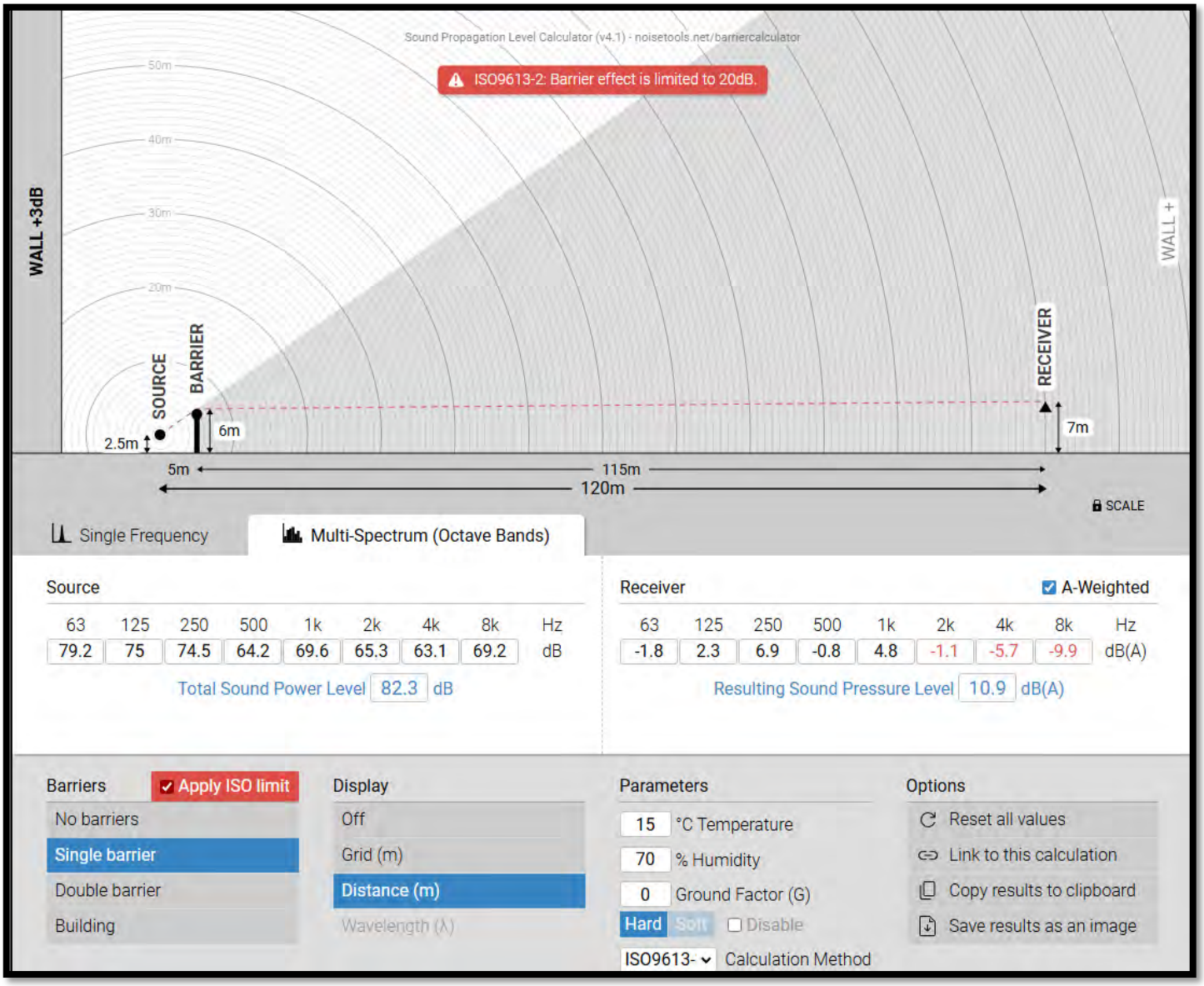
ONE REFRIGERATED TRUCK MOVEMENT
2ND FLOOR RESIDENTIAL NORTH FAÇADE (7M)



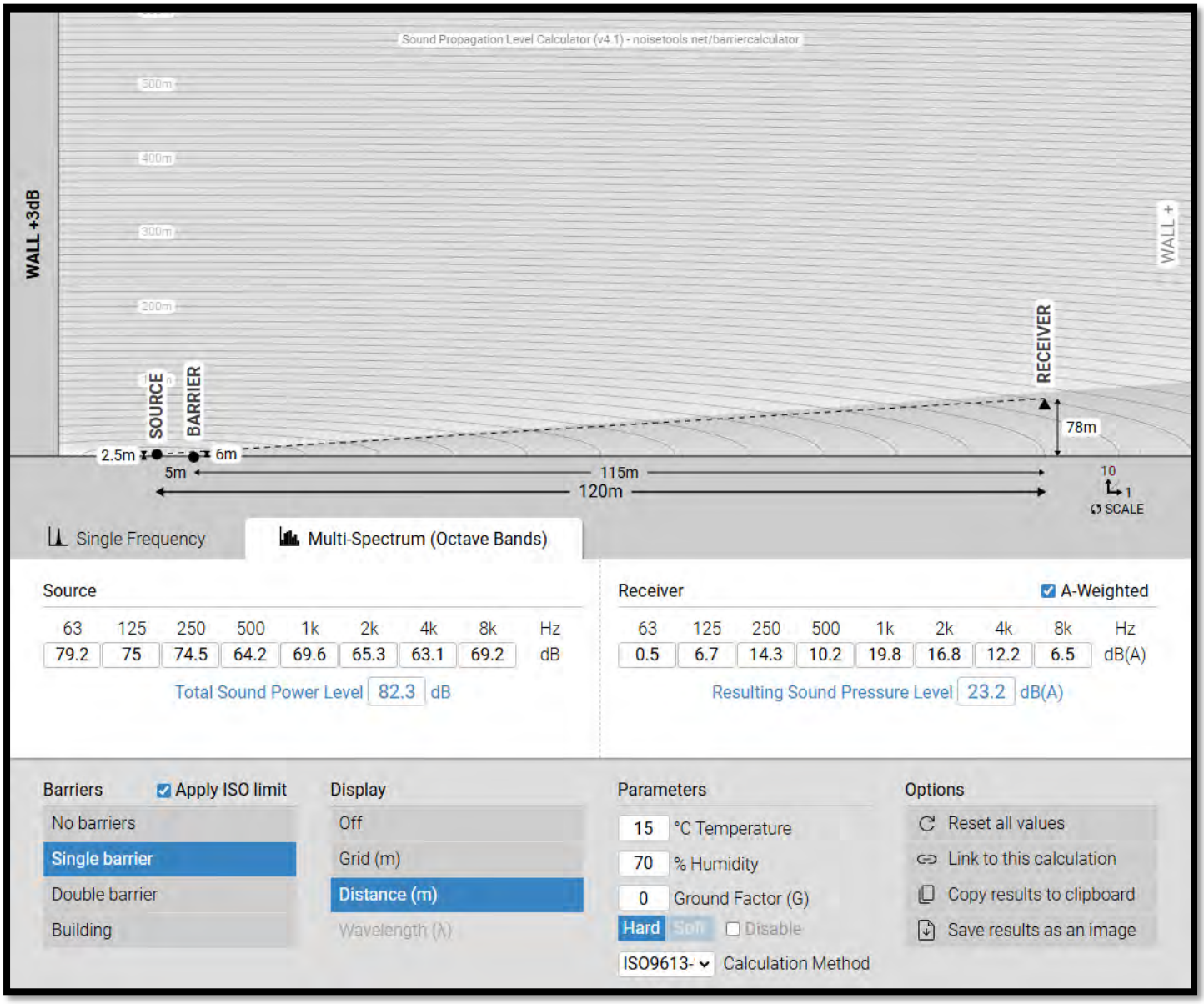
ONE REFRIGERATED TRUCK MOVEMENT
24TH FLOOR RESIDENTIAL NORTH FAÇADE (78M)



ONE REFRIGERATED TRUCK TRAILER IDLING AT DOCK 2ND FLOOR RESIDENTIAL NORTH FAÇADE (7M)



ONE REFRIGERATED TRUCK TRAILER IDLING AT DOCK 24TH FLOOR RESIDENTIAL NORTH FAÇADE (78M)

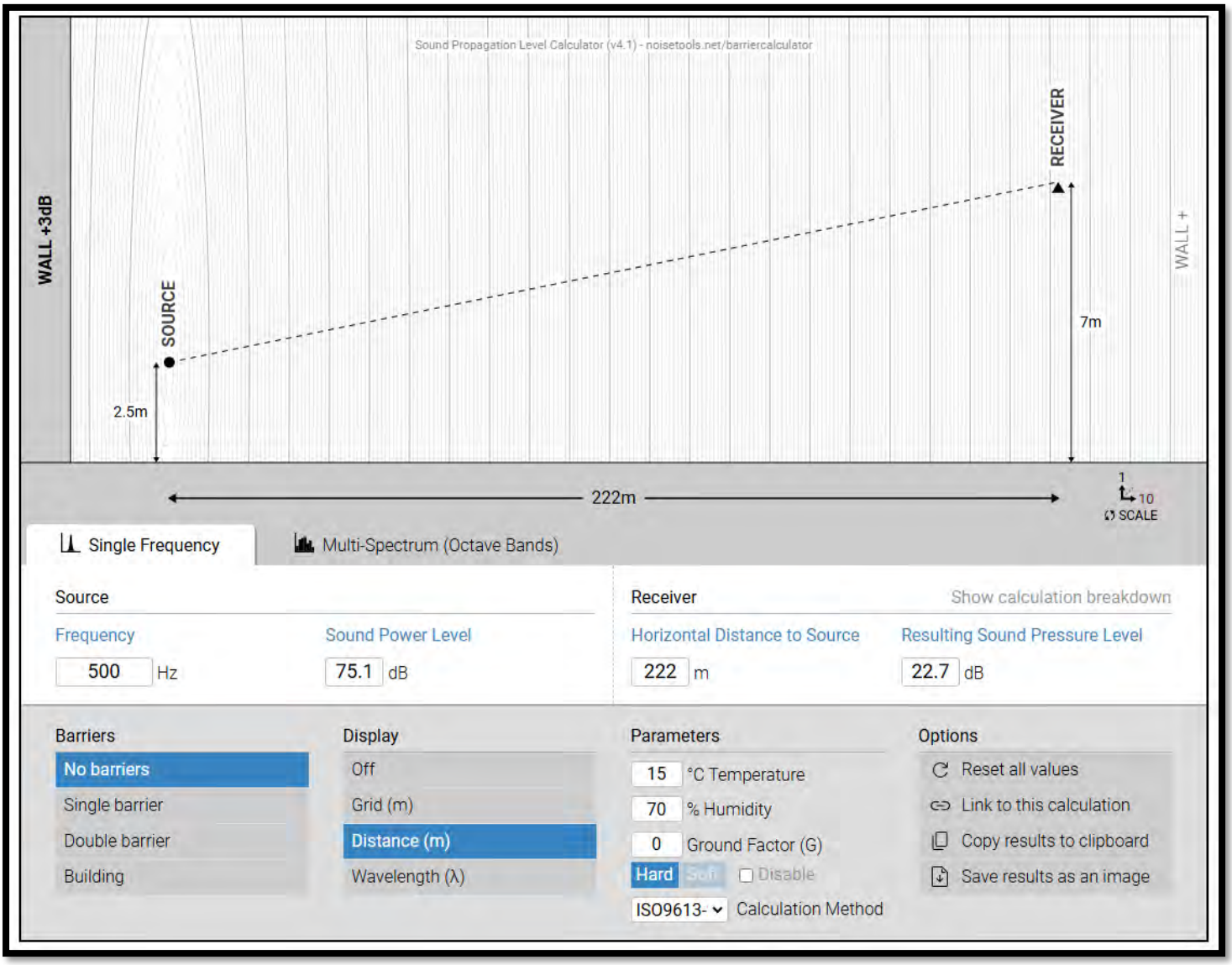


MIXING HOUSE WITH CEMENT TRUCK BEING FILLED

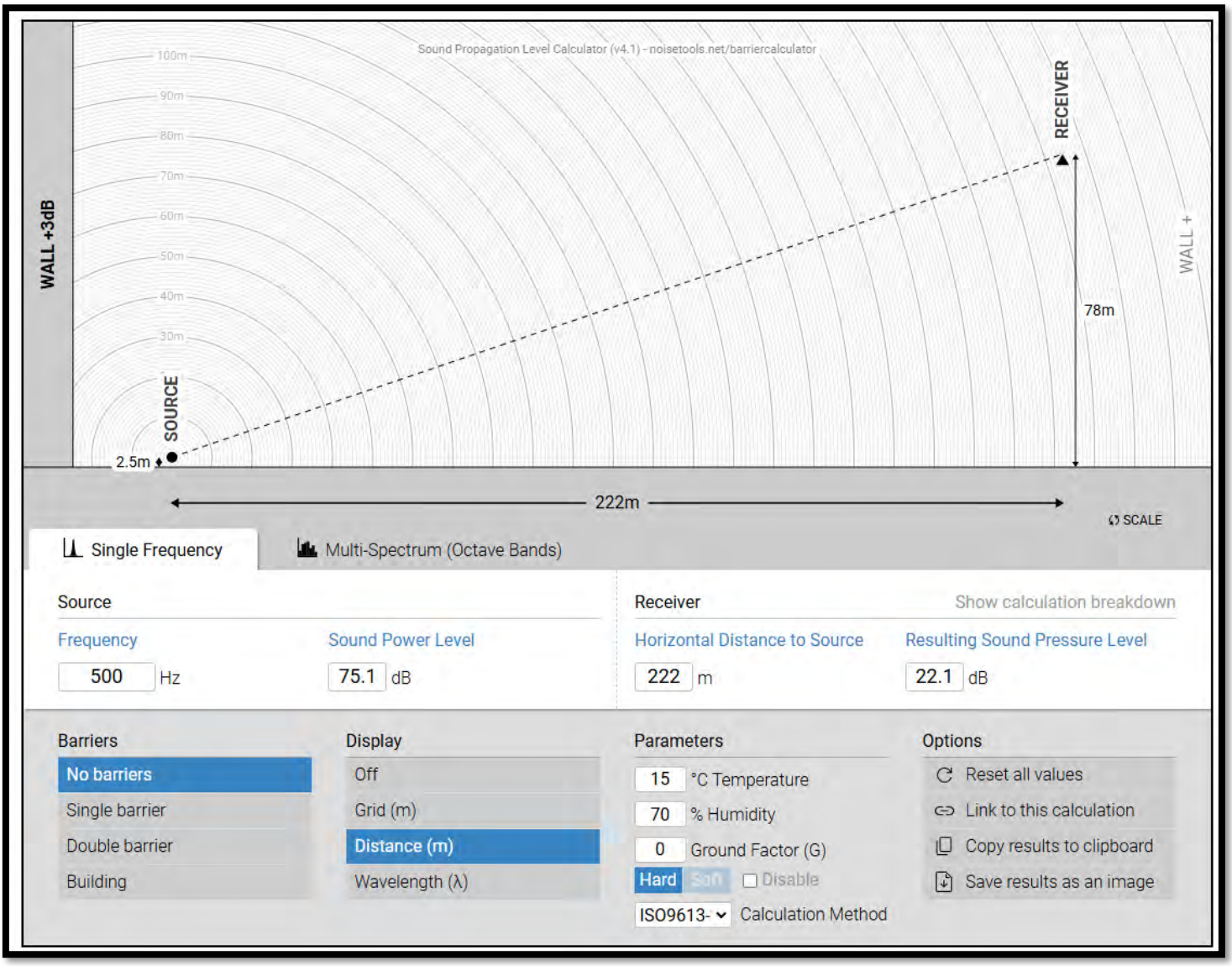




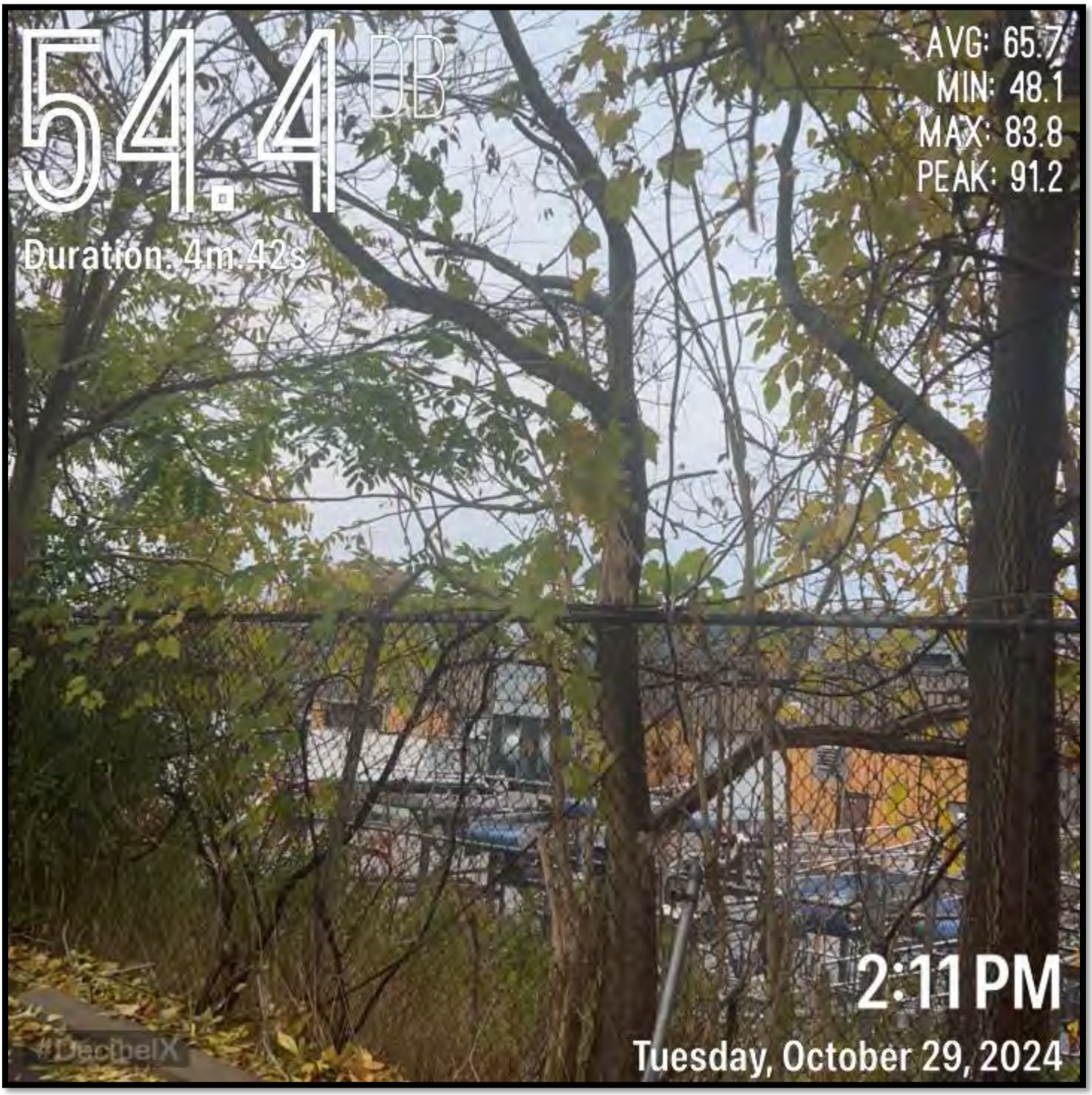
SOUND PROPAGATION LEVEL
MIXING HOUSE AND IDLING CEMENT TRUCK (222M AWAY)
2ND FLOOR RESIDENTIAL 7M



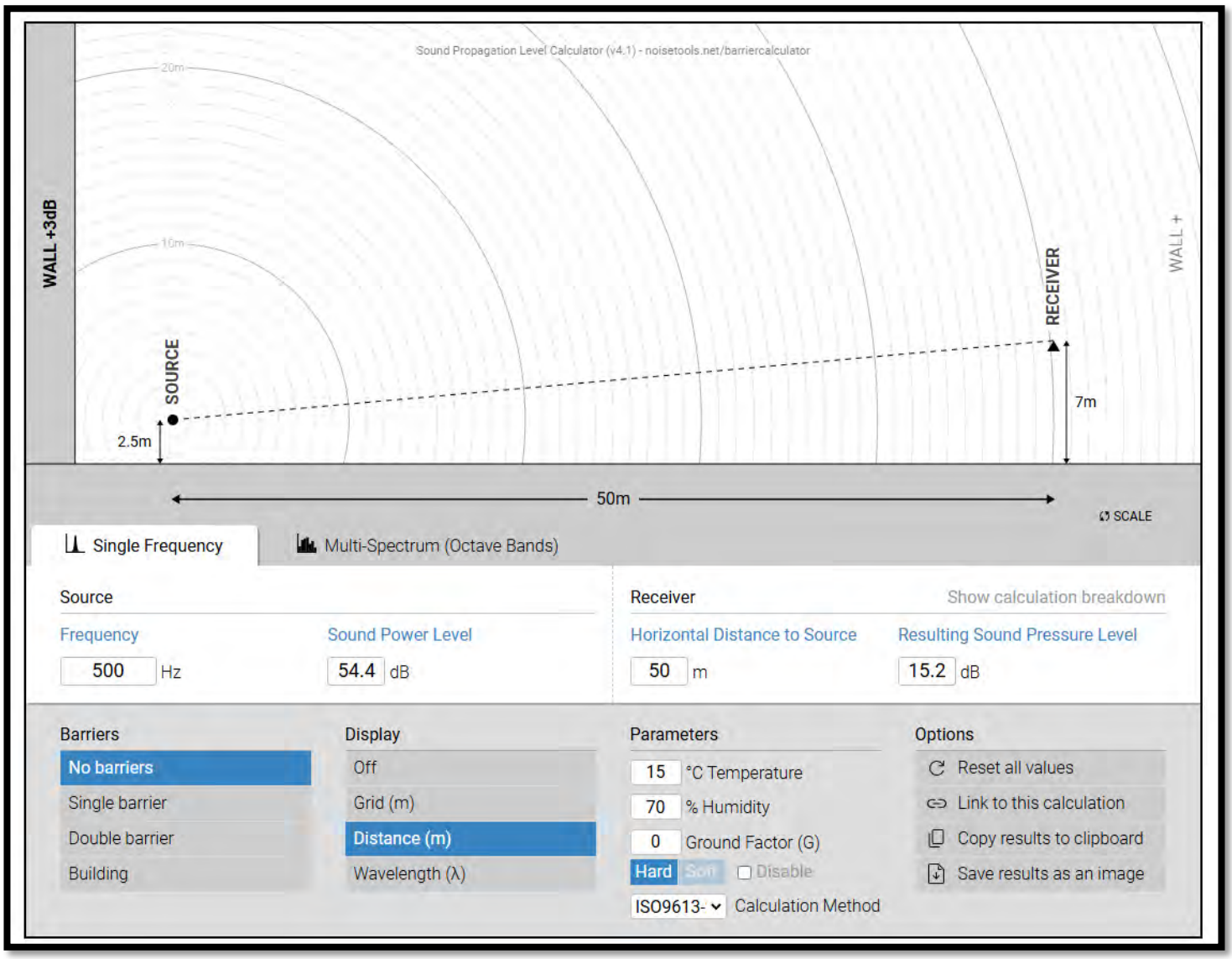
SOUND PROPAGATION LEVEL
MIXING HOUSE AND IDLING CEMENT TRUCK (222M AWAY)
24TH FLOOR RESIDENTIAL 78M



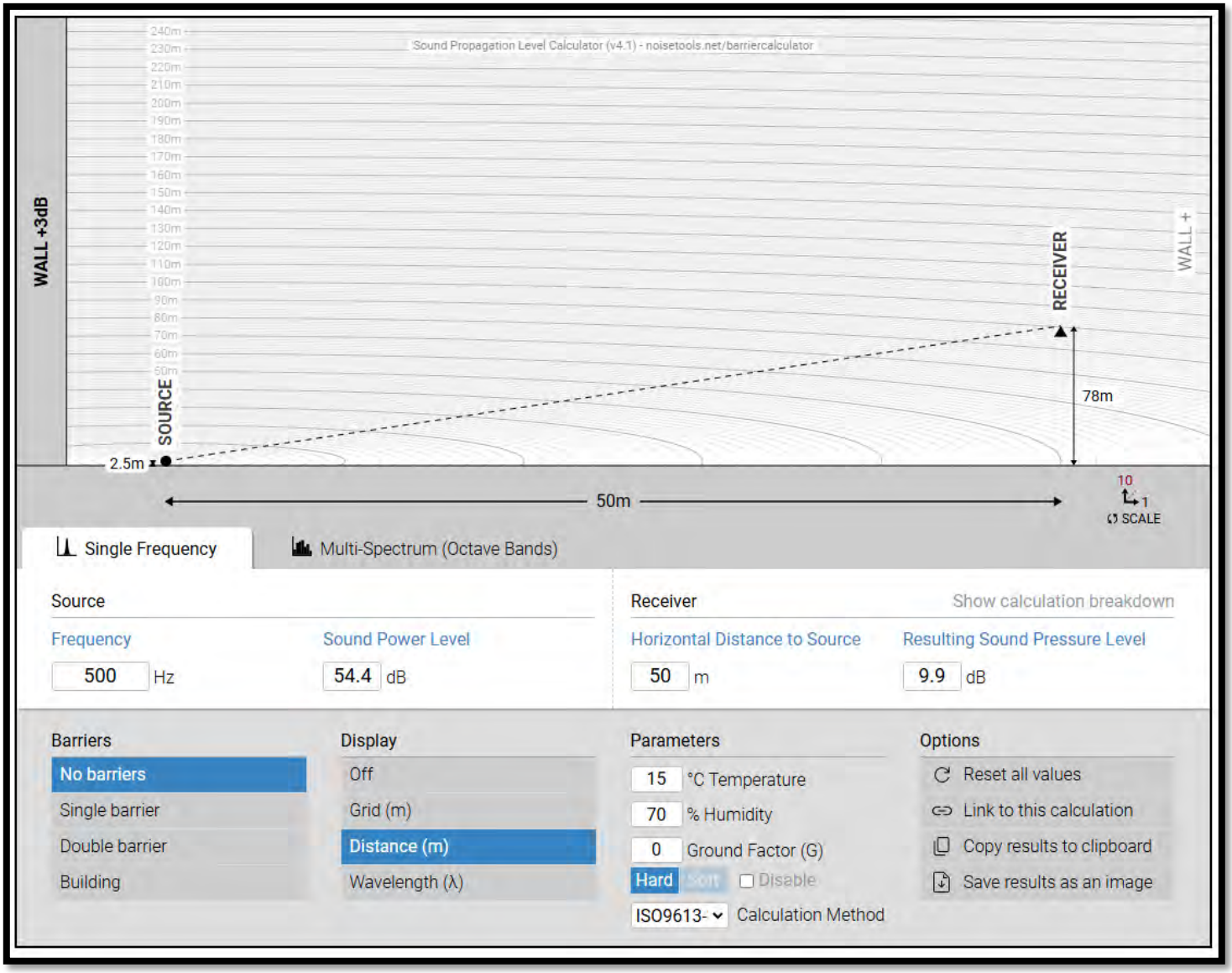
CHILLING UNIT AND COOLING FANS IN OPERATION



SOUND PROPAGATION LEVEL
CHILLING UNIT AND COOLING FANS (50M AWAY)
2ND FLOOR RESIDENTIAL 7M



SOUND PROPAGATION LEVEL
CHILLING UNIT AND COOLING FANS (50M AWAY)
24TH FLOOR RESIDENTIAL 78M



AREA OVERVIEW AGRO WHOLESALE PRODUCE



AREA OVERVIEW ALDERSHOT MEWS



AREA OVERVIEW

