

GRADIENTWIND

ENGINEERS & SCIENTISTS

June 26, 2025

Brigil

98 Rue Lois
Gatineau, QC J8Y 3R7

Re: Traffic Noise Addendum Letter
Petrie's Landing I – Towers 3, 4, & 5
GW File No.: 18-091 – Noise Addendum Letter

Gradient Wind Engineering Inc. (Gradient Wind) was retained by Brigil to undertake a traffic noise assessment for Towers 3, 4, and 5 of the proposed Petrie's Landing I development in Ottawa, Ontario. This addendum letter is supplemental to our traffic noise report (ref. *Gradient Wind report #GWE18-091 – Traffic Noise Final*, dated July 17, 2018), to address changes in the latest site plan drawings.

Gradient Wind received updated site plan drawings in June 2025. A review of these drawings depicts several minor design changes as summarized below:

- A pool amenity area has been added to the rear of the Towers 5 and 6, accompanied by landscaping and potential seating/lounging zones.
- Adjusted entrances and parking ramp positions to serve both towers from common access points.
- Minor changes in overall height, setbacks, and parapet designs

An additional outdoor amenity area has been added to the development, and a corresponding noise assessment has been completed. The results, summarized in Table 1 below, indicate that daytime noise levels at this new amenity area are expected to be 55 dBA. As this falls within the ENCG limit for outdoor living areas, no acoustic mitigation measures are required. Figure 1 illustrates the updated site plan. Appendix A includes the STAMSON 5.04 traffic noise calculations.

TABLE 1: EXTERIOR NOISE LEVELS DUE TO ROADWAY TRAFFIC

Receptor Number	Absolute Receptor Height (m)	Receptor Location	Noise Level (dBA)	
			Day	Night
1	1.5	OLA – Pool Amenity Area	55	N/A*

*Noise levels at the OLAs during the nighttime period are not considered as per the ENCG

In conclusion, the drawings do not depict significant changes to the building design that would greatly alter the noise impacts on the development from nearby transportation noise sources. Therefore, the initial recommendations and conclusions of our traffic noise report remain unchanged.

This concludes our response and review of the design changes for Petrie’s Landing I – Towers 3, 4, & 5 in Ottawa, Ontario. Please advise the undersigned of any questions or concerns.

Sincerely,

Gradient Wind Engineering Inc.

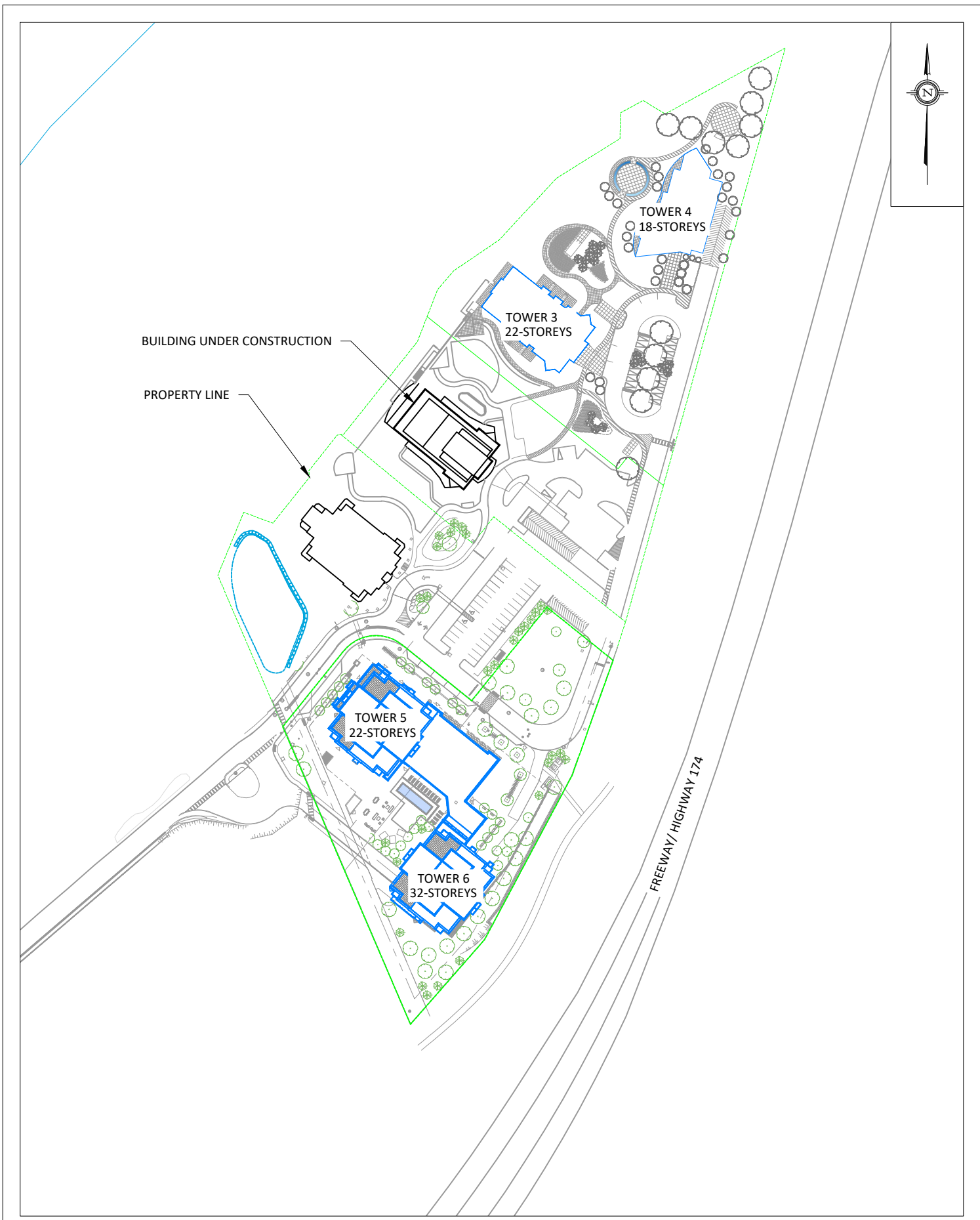


Benjamin Page, AdvDip.
Jr. Environmental Scientist



Joshua Foster, P.Eng.
Principal

Gradient Wind File #18-091 – Noise Addendum Letter



PROJECT	PETRIE'S LANDING I - TRAFFIC NOISE ASSESSMENT	
SCALE	1:2000 (APPROX.)	DRAWING NO. GWE18-091-1
DATE	JUNE 26, 2025	DRAWN BY B.P.

DESCRIPTION	FIGURE 1: SITE PLAN AND SURROUNDING CONTEXT
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	SCALE	1:1000 (APPROX.)	DRAWING NO.	GWE18-091-2	
	DATE	JUNE 26, 2025	DRAWN BY	B.P.	

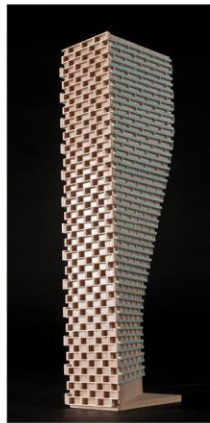
FIGURE 2:
RECEPTOR LOCATIONS



GRADIENTWIND ENGINEERS & SCIENTISTS 127 WALGREEN ROAD, OTTAWA, ON 613 836 0934 • GRADIENTWIND.COM	PROJECT	PETRIE'S LANDING I - TRAFFIC NOISE ASSESSMENT		DESCRIPTION
	SCALE	1:1000 (APPROX.)	DRAWING NO.	FIGURE 3: RECEPTOR LOCATIONS
	DATE	JUNE 26, 2025	DRAWN BY	

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APPENDIX A

STAMSON 5.04 INPUT AND OUTPUT DATA

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STAMSON 5.0 NORMAL REPORT Date: 23-06-2025 11:44:50
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: R1OLA.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: HWY 174 (day/night)

Car traffic volume : 59370/5163 veh/TimePeriod *
Medium truck volume : 4723/411 veh/TimePeriod *
Heavy truck volume : 3373/293 veh/TimePeriod *
Posted speed limit : 90 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

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

Data for Segment # 1: HWY 174 (day/night)

Angle1 Angle2 : -90.00 deg -5.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 106.00 / 106.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -5.00 deg
Barrier height : 7.77 m
Barrier receiver distance : 12.00 / 12.00 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00

Road data, segment # 2: 2UAW 174 1 (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 90 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 15000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

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Data for Segment # 2: 2UUAU 174 1 (day/night)

Angle1 Angle2 : -5.00 deg 2.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 106.00 / 106.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -5.00 deg Angle2 : 2.00 deg
Barrier height : 7.77 m
Barrier receiver distance : 12.00 / 12.00 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00

Road data, segment # 3: 2UUAU 174 2 (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 90 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 15000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 3: 2UUAU 174 2 (day/night)

Angle1 Angle2 : 2.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 106.00 / 106.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 2.00 deg Angle2 : 87.00 deg
Barrier height : 72.79 m
Barrier receiver distance : 12.00 / 12.00 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00

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Results segment # 1: HWY 174 (day)

Source height = 1.50 m

Barrier height for grazing incidence

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

ROAD (0.00 + 53.42 + 0.00) = 53.42 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-5	0.00	80.43	0.00	-8.49	-3.26	0.00	0.00	-15.26	53.42

Segment Leq : 53.42 dBA

Results segment # 2: 2UAU 174 1 (day)

Source height = 1.50 m

Barrier height for grazing incidence

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

ROAD (0.00 + 30.95 + 0.00) = 30.95 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-5	2	0.00	73.54	0.00	-8.49	-14.10	0.00	0.00	-20.00	30.95

Segment Leq : 30.95 dBA

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Results segment # 3: 2UAW 174 2 (day)

Source height = 1.50 m

Barrier height for grazing incidence

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

ROAD (0.00 + 41.79 + 47.27) = 48.35 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
2	87	0.00	73.54	0.00	-8.49	-3.26	0.00	0.00	-20.00	41.79
87	90	0.00	73.54	0.00	-8.49	-17.78	0.00	0.00	0.00	47.27

Segment Leq : 48.35 dBA

Total Leq All Segments: 54.62 dBA

Results segment # 1: HWY 174 (night)

Source height = 1.49 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.49	1.50	1.50	1.50

ROAD (0.00 + 45.83 + 0.00) = 45.83 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-5	0.00	72.84	0.00	-8.49	-3.26	0.00	0.00	-15.26	45.83

Segment Leq : 45.83 dBA

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Results segment # 2: 2UUAU 174 1 (night)

Source height = 1.50 m

Barrier height for grazing incidence

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

ROAD (0.00 + 23.35 + 0.00) = 23.35 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-5	2	0.00	65.95	0.00	-8.49	-14.10	0.00	0.00	-20.00	23.35

Segment Leq : 23.35 dBA

Results segment # 3: 2UUAU 174 2 (night)

Source height = 1.50 m

Barrier height for grazing incidence

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

ROAD (0.00 + 34.20 + 39.67) = 40.76 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
2	87	0.00	65.95	0.00	-8.49	-3.26	0.00	0.00	-20.00	34.20
87	90	0.00	65.95	0.00	-8.49	-17.78	0.00	0.00	0.00	39.67

Segment Leq : 40.76 dBA

Total Leq All Segments: 47.03 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.62
(NIGHT): 47.03