March 27, 2023

Brigil
98 rue Lois
Gatineau, Québec J8Y 3R7

Attn: Jean-Luc Rivard, Vice President - Land Acquisitions & Development
jlrivard@brigil.com

Dear Mr. Rivard:

Re: Roadway Traffic Noise Assessment, Addendum
2829 Dumaurier Avenue, Ottawa
Gradient Wind File 20-150

Following the completion of a roadway traffic noise assessment for the proposed mixed-use development located at 2829 Dumaurier Avenue in Ottawa (ref. report 20-150-Traffic Noise Final, dated July 8, 2021), Gradient Wind Engineering Inc. (Gradient Wind) was informed by the planners that the site plan has been updated. The following is a list of the notable changes to the building massing relevant to traffic noise impacts:

- The L-shaped building was changed to have an almost rectangular shape.
- The 30-storey building now features 41 storeys topped by a mechanical penthouse (MPH)
- The northside 6-storey podium rooftop terrace was changed from an L-shaped planform to a rectangular shape. The tower section now shields this OLA from exposure to Hwy 417. As a result noise levels are below 55 dBA. See attached calculation below.
- The Receptor 6 defined as an Outdoor Living Area (OLA) receptor for the south side of the 6-storey podium is now obsolete as the terrace on the south side is removed.

Even though the building massing has changed since the completion of the original report, the distances and angles of exposure to traffic noise sources have not changed significantly. As the noise levels from local roadway sources, namely Dumaurier Avenue and Highway 417, are expected to be similar to the original predictions achieved for the previous design, our previous recommendations are still applicable to the building, apart from the notable sections above.

Please contact the undersigned with any questions.

Sincerely,

Gradient Wind Engineering Inc.

Efser Kara, MSc, LEED GA
Acoustic Scientist

Joshua Foster, P.Eng.
Lead Engineer

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STAMSON 5.0        NORMAL REPORT        Date: 28-03-2023 15:10:19
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename:                       Time Period: Day/Night 16/8 hours
Description: R5 updated


Road data, segment # 1: Dumaurier (day/night)
----------------------------------------------
Car traffic volume  :  6477/563   veh/TimePeriod  *
Medium truck volume :   515/45    veh/TimePeriod  *
Heavy truck volume  :   368/32    veh/TimePeriod  *
Posted speed limit  :    40 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   8000
    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: Dumaurier (day/night)
--------------------------------------------
Angle1   Angle2           : -47.00 deg   0.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  38.00 / 38.00  m
Receiver height           :  21.50 / 4.50   m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -47.00 deg   Angle2 : 0.00 deg
Barrier height            :  20.00 m
Barrier receiver distance :  11.00 / 11.00  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: Dumaurier (day)
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Source height = 1.50 m

Barrier height for grazing incidence
-----------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.50 !       21.50 !       15.71 !        15.71

ROAD (0.00 + 37.51 + 0.00) = 37.51 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -47      0   0.00  63.96   0.00  -4.04  -5.83   0.00   0.00 -16.58  37.51
-------------------------------------------------------------------------------

Segment Leq : 37.51 dBA

Total Leq All Segments: 37.51 dBA


Results segment # 1: Dumaurier (night)
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Source height = 1.50 m

Barrier height for grazing incidence
-----------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.50 !        4.50 !        3.63 !         3.63

ROAD (0.00 + 26.49 + 0.00) = 26.49 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -47      0   0.00  56.36   0.00  -4.04  -5.83   0.00   0.00 -20.00  26.49
-------------------------------------------------------------------------------

Segment Leq : 26.49 dBA

Total Leq All Segments: 26.49 dBA


TOTAL Leq FROM ALL SOURCES (DAY): 37.51
                  (NIGHT): 26.49
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