

February 15, 2019

National Homes (Plains Road) LP
291 Edgeley Boulevard, Suite 1
Concord, Ontario
L4K 3Z4Attention: Travis Nolan
tnolan@nationalhomes.com**VIA E-MAIL****Re: Environmental Noise Feasibility Study
484 Plains Road East
Proposed Mixed-use Development
City of Burlington
VCL File: 117-0269-100**

Dear Mr. Nolan:

Valcoustics Canada Ltd. (VCL) previously prepared an Environmental Noise Feasibility Study, dated October 23, 2017, for the proposed development located at 484 Plains Road East in City of Burlington (herein referred to as the "Noise Report").

This letter, in combination with our updated Environmental Noise Feasibility Study, dated February 15, 2019, provides our responses to the review comments from the City of Burlington, received in a letter dated January 11, 2018.

The comments and our responses are presented below. The review comments are in italics followed by our responses.

Comments from the January 11, 2018 letter from the City of Burlington:**Comment #1:**

The Environmental Noise Feasibility Study by Valcoustics Canada Ltd. and dated October 23, 2017, hereafter referred to as Noise Study, provides noise abatement recommendations for the two 8-storey buildings (Buildings A and B), the seven 3-storey stacked back-to-back townhouse blocks (Buildings C to H and J) and many of the outdoor living areas (OLA).

Response to Comment #1:

Our updated Noise Report, dated February 15, 2019 has been revised to address changes to the Site Plan.

Comment #2:

The Noise Study does not assess or comment on the impact of Highway 403 road traffic. A previously submitted Environmental Noise Assessments by Valcoustics Canada Ltd. for a similar Plains Road East development identified Highway 403 traffic noise as a “significant noise source” and as such was included in the analysis.

Response to Comment #2:

Highway 403 is located over 1000 m from the subject site. Accounting for the distance separation and the partial screening from the intervening development, the highway is not expected to have a significant noise impact at the subject site and thus was not included in the assessment.

The ORNAMENT road traffic noise model (implemented by STAMSON software) is the prescribed model for use by the Ministry of Environment, Conservation and Parks (MECP) and the model that was used to complete the noise assessment. This model is valid for prediction of noise impacts from sources up to 500 m away. Beyond this distance the model is no longer valid. In this case, as the highway is overall 1000 m away, the noise impact may be overpredicted. In the previous study for the development farther to the west, the highway was also about 1000 m away. This separation distance also exceeds the maximum 500 m that the prediction model is valid for. In that case, the inclusion of the highway source was conservative and resulted in slightly more stringent noise control requirements. The inclusion of the highway would have a similar impact on the façade sound levels at this subject site, which is minor. However, the impact on the sound barrier requirements for the rooftop outdoor amenity areas would be significant (the development to the west did not have comparable outdoor amenity areas). As the inclusion of the highway in the predictions would significantly increase the sound barrier requirements, and the results may not be valid due to the limitation in the prediction model, the highway was excluded from this assessment.

Comment #3:

The Noise Study does not provide noise abatement recommendations for each of the following outdoor living areas which, based on architectural plans RZ-05 and RZ-06 by Kirkor Architects & Planners, have a depth greater than the 4 metre OLA minimum as stated in the MOECC noise guideline:

- *Building A’s 8th storey east side terrace (approx. 4.6 m);*
- *Building B’s 7th storey west side terrace (approx. 4.8 m); and*
- *Building B’s 8th storey west side terrace (approx. 4.8 m).*

Response to Comment #3:

The depths of the OLA’s in the previous assessments were based on the depths measured from the floor plans drawings rather than the elevations. Based on the floor plans, the depths of the terraces were less than 4 m. The ambiguities regarding the depths of the terraces have been resolved in the current drawings. These areas are now shown as less than 4 m in depth on both the floor plans and elevation drawings.

Comment #4:

The Noise Study does not consider the Building A 7th storey east side terrace as outdoor living area because its depth (approx. 3.8 metres) is less than the 4 metre OLA minimum as stated in the MOECC noise guideline. Considering the noise generated by the Plains Road East traffic, that Building B's 7th storey west side terrace does require noise abatement and that the MOECC noise guideline are only minimum requirements, it seems prudent that Building A's 7th storey east side terrace be consider noise sensitive and designed with noise abatement measures, as necessary.

Response to Comment #4:

The 7th floor terraces on the west side of Building B and the east side of Building A are less than 4 m in depth. In addition, these areas are not the only outdoor space for the occupant, as there is common rooftop amenity space provided. Thus, these terraces do not meet the definition of OLA as per the MECP noise guideline and as a result do not require noise mitigation.

Comment #5:

The Noise Study does not consider the Building C to H and J rooftop terraces as outdoor living areas because portions have a depth (approx. 3 metres) which is less than the 4 metre OLA minimum as stated in the MOECC noise guideline. Based on architectural plan RZ-07 by Kirkor Architects & Planners, the depth of each rooftop terrace varies from 3 metres to 7 metres (approx.). Additionally, with no other outdoor amenity space proposed for the second/third floor townhouse occupants, the rooftop terrace is the only outdoor living area provided. Considering the noise generated by the Plains Road East traffic, that portions of all rooftop terraces exceed the 4 metre minimum OLA depth and that the MOECC guidelines are only minimum requirements, it seems prudent that the Building C to H and J rooftop terraces also be considered noise sensitive and designed with noise abatement measures, as necessary.

Response to Comment #5:

As there are significant portions of the rooftop terraces that exceed 4 m in depth, the noise impact at the terraces have been included in the assessment as requested.

The predicted sound levels meet the MECP guideline limits and mitigation is not required.

Comment #6:

Architectural plans RZ-05 and RZ-06 show railings around the entirety of the Building A and B 7th storey south side terraces/6th storey roof areas and as such each outdoor living area may have a depth greater much greater than the 4 metre OLA minimum as stated in the MOECC noise guideline. While at least part of the Building A 7th storey south side terrace/6th storey roof area was reviewed as part of the Noise Study no abatement recommendations were provided and it does not appear that the Building B 7th storey south side terrace/6th storey roof area was reviewed.

Response to Comment #6:

In the current plan, all terraces at Buildings A and B are less than 4 m in depth and therefore do not qualify as OLA's under the MECP guidelines.

Comment #7:

The Noise Study proposes that the mitigated sound levels for each of the following outdoor living areas exceed the OLA noise criteria of 55 dBA as stated in the MOECC noise guideline:

- *Building A's rooftop amenity space (60 dBA);*
- *Building A's 7th storey south side terrace (60 dBA);*
- *Building B's rooftop amenity space (60 dBA); and*
- *Building B's 7th storey west side terrace (59 dBA).*

Prior to any exceedance of the 55 dBA criteria being deemed acceptable, a table comparing sound barrier heights to mitigated sound levels will be required for each of the four OLAs listed above as well as each of the previously discussed outdoor spaces which are to be considered noise sensitive.

Response to Comment #7:

A table showing the sound barrier requirements to mitigate the OLA sound levels to 55 dBA to 60 dBA in 1 dB increments has been included in the updated Noise Report.

Comment #8:

The Noise Study does not assess or comment on the impact of the proposed underground parking structure ventilation (4 air intake shafts and 1 exhaust shaft), as shown on architectural plan RZ-01, or any proposed rooftop mechanical equipment for the subject property. The impact of these stationary sources to the indoor and outdoor noise sensitive spaces of the existing neighbours and the future occupants of the subject property require review and abatement recommendations, as necessary.

Response to Comment #8:

Section 7.0 has been added to the updated Noise Report to address the impact from the development onto the surrounding environment. Note that a detailed assessment of the specific mitigation requirements cannot be done at this time as the mechanical design is not complete and mechanical unit selections have not been made. The specific requirements will be determined during the detailed building design phase, once specific unit selections are made.

Comment #9:

Considering the extent of the environmental noise comments, an update to the Noise Study is required prior to approval of the Official Plan Amendment and Zoning By-law Amendment Applications.

Response to Comment #9:

The updated Noise Report, dated February 15, 2019, included with this letter addresses the comments as referenced above. The updated Noise Report also address the changes to the Site Plan.

We expect that the above adequately addresses the comments from the City of Burlington. If further information is required, please contact the undersigned.

Yours truly,

VALCOUSTICS CANADA LTD.

Per:


Seema Nagaraj, Ph.D., P.Eng.



Per:


Mark Levkoe, B.Sc,E., P.Eng.



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Enclosures