

August 28, 2024

1047 Richmond Nominee Inc.
77 King Street W, Suite 3410
Toronto, ON
M5K 2A1

Re: Addendum to Pedestrian Level Wind Study
1047 Richmond Road, Ottawa, ON
GW File No.: 21-416-WTPLW-R2-Addendum

Gradient Wind Engineering Inc. previously completed a detailed pedestrian level wind study for the proposed mixed-use development located at 1047 Richmond Road in Ottawa, Ontario. This letter provides a summary of relevant architectural changes to the buildings design which have been made since the study was performed, as well as the anticipated impact of those changes on the predicted pedestrian wind conditions. For a complete summary of the methodology and results of the original pedestrian wind study, please refer to Gradient Wind report #21-416-WTPLW-R2, dated October 3, 2023.

Upon review of the updated drawings by rla architecture in August 2024, the following significant changes to the design were noted:

1. Tower A has decreased from 40 storeys to 36 storeys and the tower has shifted southwest to become partially flush with the podium façade.
2. The Tower A and B podia have decreased from 6 storeys each to a range of 1-4 storeys, with the shortest along the north side. Additionally, the space between the podia along the north elevation has significantly increased.

Other minor variations in architectural drawings are not expected to significantly influence the results and recommendations of the original wind study. Figures 3A-3D following the main text represent the expected future pedestrian comfort based on the wind tunnel test results of the original study. The effects of the noted significant changes above are as follows:

1. A decrease in tower height is generally associated with a decrease in windspeeds at grade and lower terraces, however, considering the relatively minor reduction, wind comfort categories are generally expected to remain similar to those originally recorded. With the shift of the tower to the southwest and where the tower no longer steps back from the podium, windspeeds are expected to somewhat increase immediately adjacent to the study building façade (Sensors 29-32) with the unbuffered downwash of prominent westerly winds towards grade and acceleration around the building corner. This effect is expected to be significantly reduced along the well sheltered south elevation (Sensors 27 & 28). Overall, the landscaped walkway along the noted podium façade is still expected to be suitable for walking or better on a seasonal basis, which is acceptable.
2. The reduction in podia height and greater separation between the east and west podia along the north side is expected to significantly reduce the capture and channeling of salient westerly winds between the buildings. Wind comfort is expected to improve over the central drop-off, outdoor amenity, and P.O.P.S., with many previously uncomfortable conditions eliminated during the colder seasons. Targeted mitigation will still be required within the outdoor amenity and P.O.P.S., which can be coordinated with the landscaping design team, as the plans progress.

Please advise the undersigned of any questions or concerns.

Sincerely,

Gradient Wind Engineering Inc.



Nick Petersen, P.Eng.,
Wind Engineer







