

GRADIENTWIND

ENGINEERS & SCIENTISTS

November 25, 2019

Times 5800 Inc.

3985 Highway 7 East, Suite 202
Markham, Ontario L3R 2A2

Re: Addendum to Pedestrian Level Wind Study
5800 Yonge Street, North York
GWE File No.: 18-201-CFDPLW

Gradient Wind Engineering Inc. previously completed a pedestrian level wind study for a multi-building, mixed-use development to be located at 5800 Yonge Street in North York, Ontario. This letter provides a summary of significant architectural changes to the building 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 pertaining to the original pedestrian wind study, please refer to GWE report #18-201-CFDPLW, dated July 18, 2019.

Overall, the revised design remains similar to the tested configuration, with several notable changes as it relates to pedestrian level winds, summarized as follows:

1. The overall building heights have been reduced slightly (Tower 1 – 37 storeys, Tower 2 – 34 storeys, Tower 3 – 44 storeys, and Tower 4 – 37 storeys.)
2. The Phase 1 buildings (Towers 1 and 2) now feature a 3-storey podium (previously 6 storeys), with their respective outdoor amenity areas located on the podium roof at the west side of the towers. An outdoor amenity area is also provided for Tower 1 at the northwest corner of Level 2.
3. The covered daycare outdoor area at the northwest corner of Tower 1 has been slightly modified, and additional covered outdoor space provided at the northwest corner of Level 2.
4. The Phase 2 podium has been reconfigured with an expanded outdoor amenity at Level 3, and the podium roof amenity shifted to Level 5.

5. The towers retain a similar design to the tested configuration, with Tower 4 shifted slightly to the west.

With regard to pedestrian level wind conditions, the combined effect of the reduced tower heights and podium heights (Phase 1 towers), will produce marginally calmer wind conditions at grade over the study site. Overall, a similar wind mitigation strategy as outlined in the original report is recommended for the revised design.

For the Level 4 amenity terraces on the Phase 1 towers, it is recommended to raise the perimeter guard to 2.0 metres above the walking surface. As well, a canopy or similar overhead structure should be provided along the west side of the towers to deflect downwash flows. The canopy/structure should extend at least 2.0 metres from the plane of the balconies above.

Regarding the Level 3 terrace for Phase 2, it is recommended to raise the west and north perimeter guard to 1.8 metres above the walking surface and to introduce similar height localized wind barriers upwind of designated seating areas to shelter westerly and northerly wind directions. For the Level 5 terrace, if seating areas will be located near the west perimeter of the space, it is recommended to raise the adjacent perimeter guards to 2.0 metres above the walking surface. For seating areas interior to the terrace area, 1.8-metre-tall localized wind barriers placed to the west of designated seating areas is recommended. Additionally, it is recommended to install a canopy or similar overhead structure, extending at least 2.0 metres from the plane of the balconies above, along the north elevation of Tower 3 to deflect downwash flows.

This concludes our review of the design changes for the proposed development at 5800 Yonge Street in North York. Please advise the undersigned of any questions or concerns.

Sincerely,

Gradient Wind Engineering Inc.



Andrew Sliasis, M.A.Sc., P.Eng.,
Principal