May 3, 2023

KJC Properties Inc.
1940 Ellesmere Road
Scarborough, Ontario M1H 2V7

Re: Addendum to Pedestrian Level Wind Study
805 Dundas Street East, Mississauga
GW File No.: 22-164-WTPLW

Gradient Wind Engineering Inc. (Gradient Wind) was retained to undertake a pedestrian level wind (PLW study for a proposed mixed-use development located at 805 Dundas Street East in Mississauga, Ontario. This letter provides responses to Urban Design comments regarding this PLW study. For a complete summary of the methodology and results pertaining to the original pedestrian wind study, please refer to GW report #22-164-WTPLW, dated September 2, 2022.

1) Sensor Locations

> *i) Please include additional sensor locations to evaluate the wind comfort and safety conditions for both the existing and proposed Summer and Winter configurations at the backyards of the existing townhouses on the adjoining property at 3083 Haines Road.*

Wind sensors 23-25 in the original report are considered to be applicable to the backyards of the adjacent townhouse blocks. Future conditions for these areas will remain similar to the existing conditions. It is also noted that the fencing surrounding the backyards was not included in the test model, and will contribute to calmer conditions within the backyards, as compared to those described in the original report.

2) Summer Wind Comfort Conditions

> *i) Introduce mitigation features to change the Summer wind comfort conditions at Sensor Locations 56, 61, 62, 63, 64 , all within the Retail/commercial Spill Out/Patio Zone from Standing to Sitting.*

If seating areas will be provided for these spill-out / patio zones where moderately windier conditions are expected, the seating areas can be provided with vertical wind screening to shelter from prominent wind directions. The exact layout of such mitigation can be coordinated with the design team, depending on the configuration of the space.

> *ii) Introduce mitigation features to change the Summer wind comfort conditions at Sensor Locations 24, 53, 68, all within the backyard and front outdoor spaces of the townhouse blocks from Standing to Sitting.*

Regarding sensor location 24, the existing perimeter fencing surrounding the backyard spaces will ensure sitting conditions at this location. For future patio areas near sensor locations 53 and 68, sitting conditions can be achieved by providing vertical wind screening, measuring at least 1.8-metres-tall, along the east and west sides of the patio spaces. Such screening may comprise high-solidity vertical wind barriers or dense coniferous plantings.

> *iii) Introduce mitigation features to change the Summer wind comfort condition at Sensor Location 37, where pedestrians are likely to linger and wait, from Walking to standing.*

Isolated walking conditions are considered acceptable for this sidewalk location.

> *iv) Introduce mitigation features to change the Summer wind comfort conditions at Sensor Locations 29, 30, 31, 55, where patrons of the west outdoor amenity space are likely to sit and observe the Play Area, from Standing to Sitting.*

If seating areas will be provided within this space, it is recommended to provide vertical wind barriers to the northwest of designated areas.

3) Winter Wind Comfort Conditions

> *i) Introduce mitigation features to change the Winter wind comfort conditions at Sensor Locations 29, 30, 31, 32, 36, 37, 64, 39, 68, 53 from Walking to Standing or better.*

During the winter months, walking conditions are considered acceptable at these locations.

4) Mitigation Notes

> *i) Where mitigation is required to achieve acceptable pedestrian wind comfort and safety levels, the wind study shall state the mitigation plan with all the recommended mitigation measures. The proposed and future configurations shall be evaluated/tested with all recommended mitigation measures in order to demonstrate the benefits of the mitigation strategy.*

Testing of the recommended mitigation is not considered necessary in this case, as the exceedances of the desired comfort criteria are minor, and the recommended mitigation is known to be effective.

> *iii) Where extreme wind conditions such as safety exceedances and uncomfortable wind comfort conditions are predicted, soft landscaping (e.g. trees, shrubs etc.) is not acceptable as wind mitigation. Other forms of wind mitigation including massing and built form changes, hard landscaping (e.g. architectural features, screens, etc.) will be required in such instances.*

Comment is not applicable to the present study, as uncomfortable or unsafe conditions are not measured.

Please advise the undersigned of any questions or concerns.

Sincerely,

Gradient Wind Engineering Inc.

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