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December 10, 2025

**Aiden Sweeny**

**Clearbrook Developments Ltd.**

506-80 Front Street East  
Toronto, Ontario, Canada M5E 1T4

**Re: DRAFT Letter - Pedestrian Wind Assessment  
3115 Hurontario Street  
RWDI Reference No. 2406897**

Dear Aiden,

Rowan Williams Davies & Irwin Inc. (RWDI) has conducted a pedestrian wind study for the proposed development at 3115 Hurontario Street in Mississauga, Ontario. The assessment was based on the wind-tunnel testing conducted for the proposed development site with existing and future surroundings. The wind tunnel model was constructed based on the drawings received in January 2025 (Image 1). The wind tunnel test included proposed landscaping on-site, but trees were modelled without leaves to better represent wind conditions during the winter season. Our findings and recommendations were summarized in the following final report:

*Pedestrian Wind Study – 3115 Hurontario Street – Mississauga, Ontario, RWDI Project # 2406897, March 4, 2025, by Maryam Al Labbad, Hanqing Wu and Artur Nascimento.*

The results of the wind study showed appropriate wind conditions at most areas on and around the project site. However, higher-than-desired wind speeds were predicted in the outdoor charity space on the north side of the proposed building at grade, as well as on the west terrace of Level 7. Additionally, uncomfortable wind conditions were predicted at isolated locations around the northwest corner of the proposed building in the summer and winter, and around the southwest corner of the building and along the sidewalk of Hurontario Street during the winter. The annual safety criterion was also predicted to be exceeded marginally at localized areas on the southwest corner of the proposed building, on the sidewalks of Hurontario Street and Hillcrest Avenue, and on Level 7 west terrace. This criterion, based on the City of Mississauga guidelines, corresponds to rare events, defined as an annual exceedance of approximately 9 hours, or 0.1% of the time over a 24-hour day.

Wind control strategies were discussed in the report to address both exceedances related to wind comfort and safety conditions for the design team's consideration. These measures and their potential wind reduction can be reviewed at a later design stage of the project.

The building design has also been changed since the wind tunnel tests. The purpose of this letter is to:

1. Comment on the impact of the design changes to the proposed project and the proposed wind control measures on the wind conditions predicted in the wind study report.
2. Provide expert opinion regarding wind safety exceedance conditions identified in the previous report.



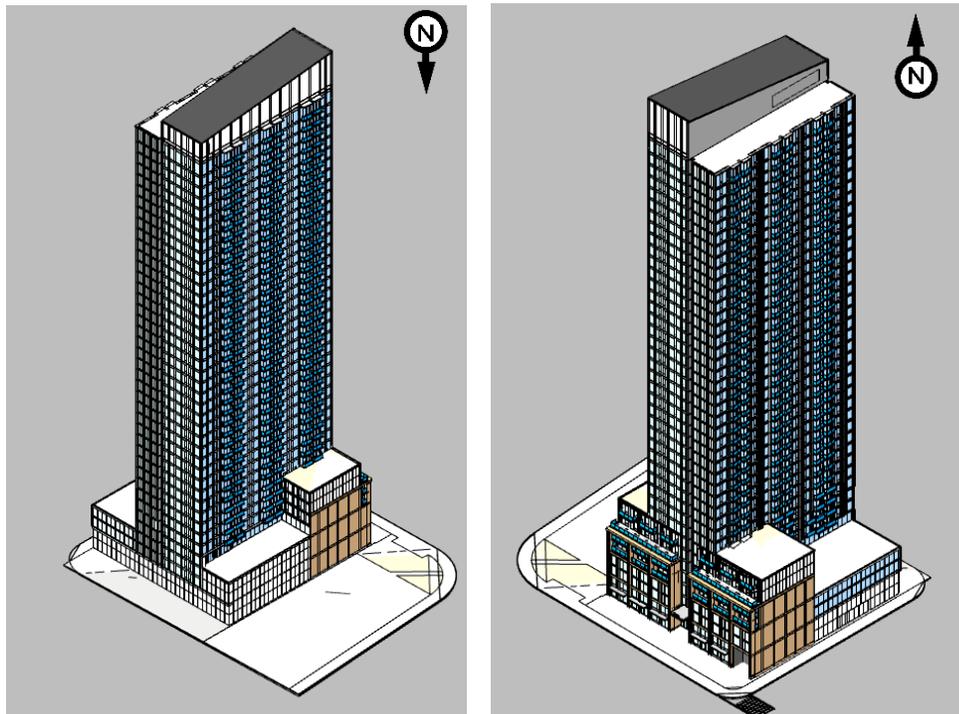
## Recent Project Design Changes

Following the wind study, RWDI received an updated 3D model on July 23, 2025 (Image 2). Major design changes that may potentially affect the predicted wind conditions include:

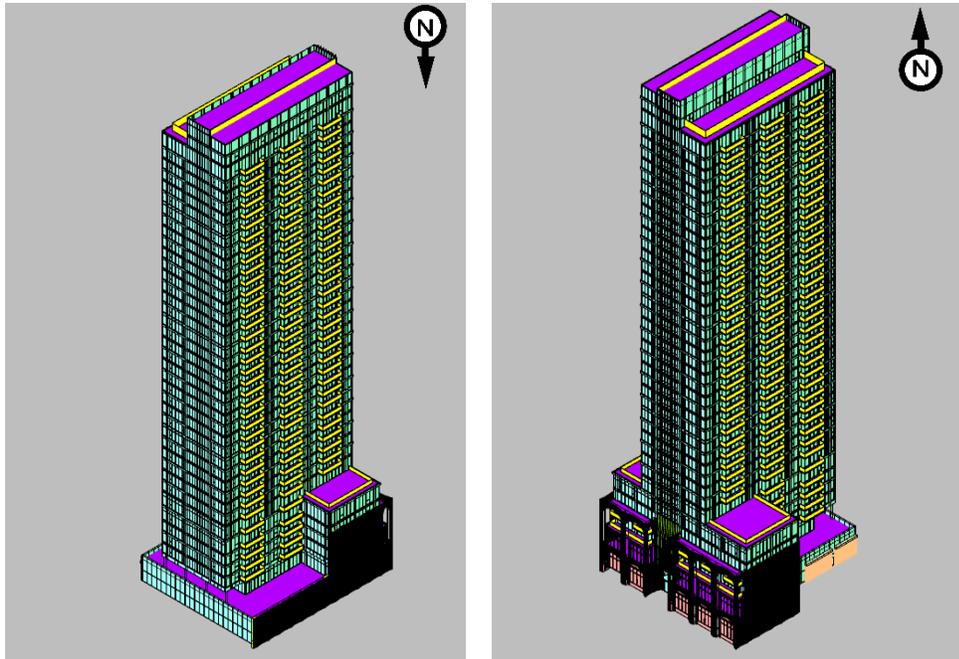
- The reduction of the podium height on the north side of the building by 1 storey; hence, the outdoor amenity areas were moved from Level 3 to Level 2.
- The introduction of approximately 6 m setbacks on the east side of the building at grade, and on the north side of the podium at Level 2.
- The addition of an outdoor amenity space on the east side of the tower on Level 40, which is enclosed by a 2 m parapet.

Since the overall design, height, and orientation of the proposed development have not changed significantly relative to the design studied previously, similar wind conditions to those presented in the March 4, 2025 report are expected with the new design. The downwashing off the towers' façades and the subsequent corner acceleration flows associated with the latest design of the project are expected to occur in a similar manner to that of the initial design. The 6 m setbacks on the north and east sides are considered significant design changes. While the setback on the east side of the building is not expected to change wind conditions significantly since the prevailing winds are from westerly and northwesterly directions, the setback on the north side is expected to improve the wind conditions north of the proposed building. However, its impact on the areas south of the proposed building is expected to be minimal. Generally, the areas with exceeding wind conditions along Hurontario Street, as indicated in the March 4, 2025, report, are expected to remain unchanged with the new design.

The wind conditions on the Level 2 outdoor amenity area are expected to be similar to those at Level 3 in the prior study. The rooftop terrace will be located on the east side and sheltered by the roof structure from the prevailing westerly and northwesterly winds. The terrace is also enclosed by a 2 m tall parapet. Therefore, wind conditions at this level are expected to be generally appropriate for the intended use in the summer, when the outdoor spaces will be used most often. Slightly higher wind speeds might be experienced at the north and south ends, so we recommend increasing the parapet height to a minimum of 2.5 m to achieve calm wind speeds throughout the amenity space. The latest drawing, AZ208, has incorporated the recommended parapet height, and wind speeds throughout the amenity space are expected to meet the safety criteria.



**Image 1: 3D Model of the Original Design of the Proposed Development**

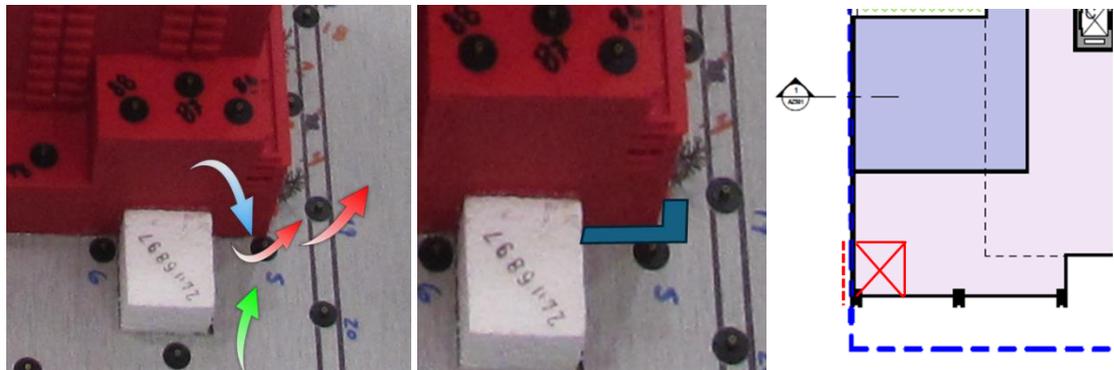


**Image 2: 3D Model of the Updated Design of the Proposed Development**

## Further wind conditions analysis

The March 4, 2025, pedestrian wind study identified three locations at grade where the annual wind safety criterion was marginally exceeded, along with one uncomfortable condition at the property line. These exceedances are primarily associated with localized aerodynamic effects caused by building geometry and surrounding context. Below is a detailed analysis of each location:

1. Sensor 18 – Southwest Building Corner
  - a. The marginally exceeded wind condition at this location is driven by corner accelerations resulting from the interaction of prevailing northwest winds with the building’s exposed west façade. These winds are deflected downward due to downwash effects, then redirected horizontally around the southwest corner, creating a zone of intensified flow. Secondary contributions from horizontal winds along Hurontario Street further amplify wind speeds in this area (Image 3).
  - b. The predicted wind speed was 92 km/h, slightly above the 90 km/h threshold defined by the safety criterion. This is considered a borderline exceedance but still warrants mitigation due to potential pedestrian safety concerns.
  - c. Recommended Mitigation Strategies (Image 3):
    - i. Incorporate wind-breaking elements such as coniferous trees, porous screens, or trellises near the southwest corner to disrupt acceleration zones.
    - ii. If landscaping is not feasible, consider installing a continuous canopy or trellis along the west façade, wrapping around the southwest corner to intercept downwash flows.
    - iii. Introducing a re-entrant corner at grade, combined with a porous screen, can reduce wind convergence and lower peak velocities.
  - d. The latest drawings, AZ204, have incorporated the recommended “iii.” wind mitigation measure. We only note that this windscreen should be at least 2 m high. Wind speeds at Sensor 18 are expected to meet the safety criteria.



**Image 3: Wind Pattern and Proposed Mitigation Strategies**



2. Sensors 28 – Southwest Building Corner
  - a. In March 2025 report (p.7), we included the following recommendation to improve the wind conditions at this location: “ To lower wind speeds in the outdoor charity space and the northwest corner of the building (Location 28), it is suggested to install windscreens/fence on the northwest side of the building (near Locations 8 and 28) to diffuse the energy of accelerating winds and provide calm wind zone for passive patron use in the summer.”
  - b. The latest drawings, AZ204, have incorporated the recommended wind mitigation measure. We only note that this windscreen should be at least 2 m high. Wind conditions at Sensor 28 are expected to be comfortable most of the time.
3. Sensors 48 and 52 – Off-Site Locations
  - a. These exceeding conditions were not present in the original wind tunnel study, submitted on July 6, 2022, and are attributed to future surrounding developments introduced in the updated context model. The additional massing of these future developments altered local wind patterns, improving conditions along the 3115 Hurontario property line but increasing wind activity at these off-site locations.

As noted, the recent design changes have not significantly affected the overall height or orientation compared to the previous proposal. Consequently, the March 2025 report results are expected to remain similar. The updates shown on the latest Architectural Plan address our mitigation recommendations for Sensors 18 and 28, while Offsite Sensor locations (48, 52) are influenced by both this development and anticipated surrounding projects.

A detailed wind tunnel study should be conducted at the SPA stage to ensure more accurate measurements, incorporating refined building and landscape design elements aligned with the March 2025 report and subsequent recommendations.

## Closing

We trust this satisfies your current requirements. Should you have any questions or require additional information, please do not hesitate to contact us.

Yours truly,

**RWDI**

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