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May 26, 2025

Attention: Parker Zhang
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SLR Project No.: 241.030998.00002

Revision: 1

**RE: Addendum Letter & Drawing Review for Pedestrian Wind Comfort**
**177-179 Albert Street – Waterloo**

SLR Consulting (Canada) Ltd. (SLR) provides this letter at the request of 14688210 Canada Inc. This letter provides our opinion on the potential effect the recent design changes to the proposed development at 177-179 Albert Street in Waterloo may have on the pedestrian wind conditions in the vicinity of the development.

# Background

SLR previously completed the following deliverables with regards to this proposed development:

- A pedestrian wind assessment in October 2024 for the proposed development, summarized in SLR's report titled "Pedestrian Wind Assessment – 177-179 Albert Street – Waterloo, Ontario – SLR Project #241.030998.00001" and dated October 21, 2024.

# Updated Architectural Information

Updated architectural drawings were received by SLR on May 7 and May 20, 2025, and were compared to the original drawings used for the construction of 3D computer model (received between August 6 and August 12, 2024). The following relevant differences were noted between the two sets of drawings:

- Previously the podium was 1.0 m from the north property line and approximately 6.9 m from the west property line. Currently, the podium is setback from the north property 3.0 m and 4.4 m from the west property line. Therefore, the building has shifted slightly to the southwest.
- Previously the tower was setback approximately 6.5 m from the north property line. Currently, the tower is setback 9.0 m from the north property line.
- Previously, the podium had a floorplate of approximately 28 m by 33 m, with the long axis parallel to Albert Street. Currently, the podium has a floorplate of approximately 30 m by 32 m, with the long axis parallel to Albert Street.
- Previously, the podium was six storeys tall (approximately 20 m along Albert Street). Currently, the podium is four-storeys tall along the north facade (approximately 15 m), and six-storeys tall (approximately 23 m) along the west, south and east facades.

- Previously the building was approximately 98 m tall. Currently, the building is approximately 102 m tall. Both of these heights are measured from Albert Street.
- Previously, there were outdoor amenity terraces along the west, north and east sides of the tower at Level 6. Currently, there are outdoor amenity terraces at grade along the west facade, at the northeast corner of Level 6, and at the southwest corner of Level 6.
- The wrap-around canopy along the west, south, and east facades is a positive design feature. Currently, this canopy protrudes beyond the tower/podium above approximately 3.4 m along the west facade, approximately 2.0 m along the south facade, and approximately 4.0 m along the east facade.

# Commentary on Pedestrian Wind Comfort

Overall, the massing of the proposed development has changed minimally since the qualitative pedestrian wind assessment of October 2024. Therefore, the results described in the October 21, 2024, report remain applicable. Wind comfort conditions on and around the site are expected to be suitable for walking or better throughout the year, with the windiest areas at the northeast corner throughout the year, as well as along the south facade in the winter season. In addition, safety exceedances were predicted along the north and south sides of the proposed building. The wrap-around canopy will provide local protection from downwashing flows, a positive design feature, however it may be insufficient to fully disrupt the strong wind flows further from the building. Note, the analysis extends approximately 150 m from the building in all directions and considers the existing surroundings within a 500 m radius (see methodology in the October 2024 report).

To improve wind conditions, we recommend the design team consider the following mitigation as the design progresses:

- The inclusion of wind mitigation features at the northeast corner of the building to address the safety concerns. These could include: a tall fence at northeast corner directed north to the property line; individual wind screens at grade at the northeast corner, which could be incorporated into landscaping; a wrap-around canopy at the northeast corner; 50% porous screens within the facade cutouts along the west, north and east facades of the surface parking area.
- The incorporation of additional standalone horizontal features at the southeast corner of the building, to disrupt the downwashing wind flows from the southwest. These may be necessary if the wrap-around canopy in the area proves to be insufficient during quantitative analysis.
- Consider the inclusion of vertical wind mitigation features at the southeast corner of the property. These features would be considerate of vehicular sight lines, and other safety concerns.

SLR will work with the design team to develop and assess appropriate wind control features to improve the windy conditions identified, as the design progresses to the Site Plan Control (SPC) application stage.

Also, with regards to wind safety, exceedances are predicted along the north and south facades of the proposed building, per the October 2024 report. Note, it is SLR's experience that the qualitative approach utilized for the initial analysis can skew conservative with regards to safety concerns. Hence, we strongly recommend confirming these wind conditions through a quantitative wind tunnel analysis during the SPC stage.

# Conclusion

The changes to the overall development are minimal in nature and hence are expected to have a negligible influence on the wind comfort and wind safety conditions on and immediately surrounding the site. Hence, the comfort and safety conditions described in SLR's report of October 2024 remain valid. Recommendations have been provided for the design team to consider as the overall design progresses.

We recommend conducting a quantitative wind tunnel study for the next planning application in order to confirm the wind conditions and to incorporate practical and effective wind control measures. This analysis could also consider the potential for future buildings in the vicinity, if required by the City.

# Statement of Limitations

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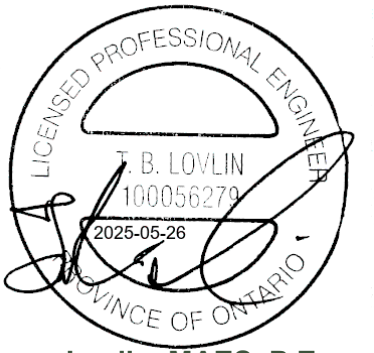
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# Closure

Should you have any questions or comments, please feel free to contact us.

Regards,

**SLR Consulting (Canada) Ltd.**




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