

April 9, 2024

Attention: Vanessa Smith
Tulloch Engineering Inc.
1942 Regent Street, Unit L
Sudbury, ON P3E 5V5

SLR Project No.: 241.031508.00001

Revision: 0

**RE: Peer Review of Preliminary Pedestrian Level Wind Assessment
700 Paris Street – Sudbury, ON**

SLR Consulting (Canada) Ltd. (SLR) was retained by Tulloch Engineering Inc. to conduct a peer review of the Preliminary Pedestrian Level Wind Assessment for the proposed residential development at 700 Paris Street in Sudbury prepared by Theakston Environmental Consulting Engineers (Theakston), dated September 19, 2023 (herein referred to as “Wind Report”). This letter summarizes SLR’s peer review comments.

Background

Based on the review of the Wind Report, the proposed development is located at 700 Paris Street in Sudbury, and is encompassed by Facer Street to the north, Paris Street to the west and Bell Park Road to the east. The proposed development will be located on the site of the old St. Joseph’s Health Care Centre.

The proposed development includes three residential buildings. Building A is 16-storeys tall; Building B is 20-storeys tall, and Building C is 12-storeys in height. Building C is located on the north third of the site, Building B is in the middle of the site, and Building A is located on the south third of the site. All three buildings are closer to Bell Park Road than Paris Street and/or Facer Street. The long axis of each building is approximately parallel with Paris Street and hence aligned approximately with southwest / northeast.

The Wind Report assessed the pedestrian wind comfort and safety of the proposed development. SLR understands the Wind Report was prepared in support of joint Official Plan Amendment (OPA) and Zoning Bylaw Amendment (ZBA) planning application, although this is not stated within the report.

Note, if no comments are provided, SLR agrees with the findings of the report section.

Peer Review Comments

SLR’s overall comments on the Wind Report:

- 1) In general, the report is well organized and easy to follow.
- 2) SLR assumes that when comfort categories are discussed with regards to an area, it implies on an annual basis unless otherwise stated.

Site Information & Proposed Development

- 3) SLR suggests the figures be numbered in the order they are discussed.
- 4) SLR suggests Figure 2 include a north arrow and credit.

Meteorological Data

- 5) What period did the meteorological data encompass? Theakston to clarify in report.
- 6) SLR is unclear as to why 31.7 km/h was selected to distinguish strong winds. Theakston to clarify in report.
- 7) SLR suggests the wind roses in Figure 3 would be more valuable to the reader if the wind categories were simplified between strong winds and the rest of the winds, per comment #6 above.

Comfort Criteria

- 8) SLR agrees comfort is based on mean wind speed and safety is based on gust speed.
- 9) SLR agrees with the use of 80% of the time for categorization of wind comfort.
- 10) SLR agrees with the expectations of wind comfort for pedestrian areas around a building.
- 11) In the first paragraph, the inclusion of uncomfortable within the suitability of 80% (last line) is confusing for the reader. Theakston to clarify in report.
- 12) In the fifth paragraph, the discussion of safety implies it has to do with mean wind speed. SLR recommends the inclusion of a separate paragraph to discuss the implications of safety and what wind speed and type (i.e., mean or gust) is used for the categorization of unsafe wind conditions. Theakston to clarify in report.

Pedestrian Level Wind Assessment

- 13) SLR suggests additional clarification is required as to the approach undertaken to conduct the Wind Report. The first paragraph implies the Wind Report is based on quantitative analysis, which SLR believes was not the case. We suggest Theakston include a more robust methodology section in the report to clarify what type of analysis was conducted.

Discussion of Easterly Winds

- 14) In the fifth paragraph of the section, SLR suggests correcting from “southwest facades” to “northwest facades” with regards to the main entrances.

Discussion of Outdoor Amenity Space

- 15) SLR assumes that unless otherwise stated, wind screens are 100% solid (third paragraph). Theakston to confirm and describe in report.
- 16) In the discussion of the amenity space on the 13th floor of Building A, SLR is confused by the summary of the wind conditions on the terrace will be suitable for sitting (second paragraph), which is then contradicted in the following paragraph and recommendations



are made. Can Theakston please clarify if mitigation (i.e., 2 m tall perimeter wind screen) is suggested or recommended for this amenity space?

- 17) With regards to mitigation for the 20th floor covered terrace, is Theakston recommending landscaping (in planters) and trellises in addition to the design roof and recommended wind screen? In SLR's opinion, these additional features are no necessary for this space with the roof and tall screens in place. Theakston to confirm and update report if necessary.
- 18) SLR is unclear if the mitigation measures described for the grade level patio of Building C are to be applied to the 3rd floor (sixth paragraph). Or does the sixth paragraph of this section discuss the 3rd floor outdoor amenity of Building C? Theakston to clarify in report.
- 19) In the seventh paragraph, does "incorporating a porous wind screen..." imply a recommendation or suggestion? Theakston to clarify in report.

Mitigation Strategies

- 20) SLR finds the last two paragraphs contradictory. Will wind conditions be suitable once the recommendations are implemented or are the wind conditions expected to be suitable without mitigation? Theakston to clarify in report.

Conclusions and Recommendations

Based on our review of the Wind Report, SLR recommends the following:

- 1) Some sections of the Wind Report need to be updated to account for clarification requests.
- 2) The findings of the assessment are acceptable once clarifications are provided.

SLR requests Theakston provide an updated report, to address SLR's clarifications, suggestions, and recommendations, to complete the peer review process of the Wind Report.

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Regards,

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