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October 8, 2021

Andrew Browne Development Manager, Western Canada Starlight Developments <u>abrowne@starlightinvest.com</u>

Re: Pedestrian Wind Conditions Harris Green Victoria, BC RWDI Reference No. 2001879

Dear Andrew,

Rowan Williams Davies & Irwin Inc. (RWDI) conducted a wind tunnel study for Harris Green development in April of 2020. The predicted wind conditions on and around the development were presented in our report titled *"Harris Green – Victoria, BC – Pedestrian Wind Study, RWDI #2001879, June 9, 2020"*.

Since the report was issued, design changes have been made according to the latest 3D model received by RWDI on September 24, 2021. Image 1 shows the building massing used for the wind tunnel test in comparison to a rendering of the updated design, respectively. The intent of this letter is to comment on the impact of the design changes on the wind conditions predicated from the wind tunnel study conducted in 2020.

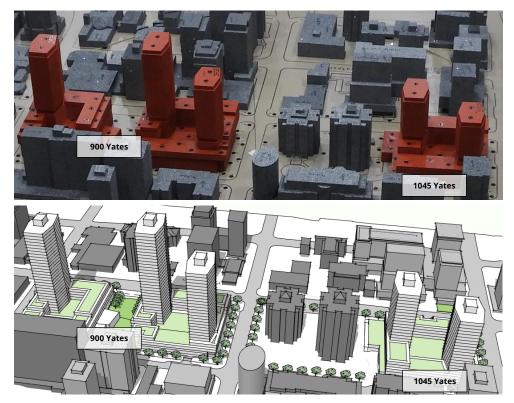


Image 1: Wind Tunnel Study Model (Top) Versus Updated Design (Bottom)



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As shown above, the massing of the towers and podiums are similar to what was previously tested in the wind tunnel. The primary differences are that the heights of the podiums have been reduced by one storey, and the heights of the towers have increased by one to three storeys. The setbacks associated with the towers have been carried forward in the new design which is positive from a wind impact perspective as setbacks help to prevent downwashing and accelerating winds off the towers from reaching pedestrian sensitive areas at grade level.

Due to the relatively minor massing changes, the wind conditions for the new massing design are expected to remain similar to those predicted from the initial wind tunnel study. As a result, elevated wind speeds that exceed the wind safety criterion are still anticipated on the roofs of the towers and near the exposed northwest building corner of 900 Yates. From a pedestrian wind comfort perspective, wind conditions on and around the proposed development, including along the surrounding sidewalks and on the terraces, are generally expected to remain appropriate. However, higher than desired wind speeds for passive pedestrian use (e.g., sitting, dining, etc.) are expected to persist at select terrace locations.

To help moderate wind speeds and improve pedestrian comfort, the wind control strategies as outlined in RWDI's June 9, 2020, report should be considered as the design continues to progress. If there are any questions, RWDI would be happy to further guide the placement and types of wind control strategies to achieve appropriate levels of wind comfort based on the programming. In order to quantify the transient behavior of wind and refine any conceptual mitigation strategies, additional physical scale-model tests in a boundary-layer wind tunnel would be required.

We trust the above assessment satisfies your requirements for the project currently. Should you have any questions or require additional information, please do not hesitate to reach out.

Yours very truly,

RWDI

Timothy Wiechers, M.Sc. Technical Coordinator

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Jon Barratt, P.Eng. Senior Project Manager / Associate