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March 20, 2020

Aimée Grigg Timbercreek Asset Management 25 Price Street, Toronto, ON, M4W 1Z1 T: 416.923.9967 x7221 agrigg@timbercreek.com

### Re: Pedestrian Wind Conditions 1750 Bloor Street RWDI Reference No. 1701515

Dear Aimée,

Rowan Williams Davies & Irwin Inc. (RWDI) was retained by Timbercreek Asset Management to conduct a pedestrian wind study for the proposed 1750 Bloor Street development in Mississauga, ON.

## Background

Two wind tunnel tests were conducted for this development. The initial round of testing provided baseline conditions around the site, the findings of which were summarized in the Pedestrian Wind Report issued on October 30, 2017. Subsequent testing was conducted with the intent of quantifying the effectiveness of grade-level wind control measures in critical pedestrian areas around the site, the findings of which were summarized in the Pedestrian Wind Report issued on October 11, 2018. Additional commentary on subsequent architectural design changes to Tower C and Building D was provided in a memorandum issued on July 23, 2019.

Since the completion of the wind tunnel tests and aforementioned reporting, there has been a significant redesign of the proposed development. RWDI has prepared this letter to summarize the impact this redesign will have on the previously-predicted wind conditions, and highlight that the design changes are significant enough to warrant additional wind tunnel testing.

## **Proposed Design Changes**

The latest design drawings were received from WZMH Architects on March 19, 2020. The proposed design changes that are important from a pedestrian wind comfort perspective are as follows:

- The redesign of the Tower C massing including a larger building footprint (see red boxes in Image 1), and an increase in height from 17 storeys to 19 storeys (see Image 2 for a comparison of the current massing to the previous massing).
- The redesign of Building D including a significant reduction in the building footprint (see blue boxes in Image 1) and a decrease in height from 3 storeys to 2 storeys (see partial massing comparison in Image 2).





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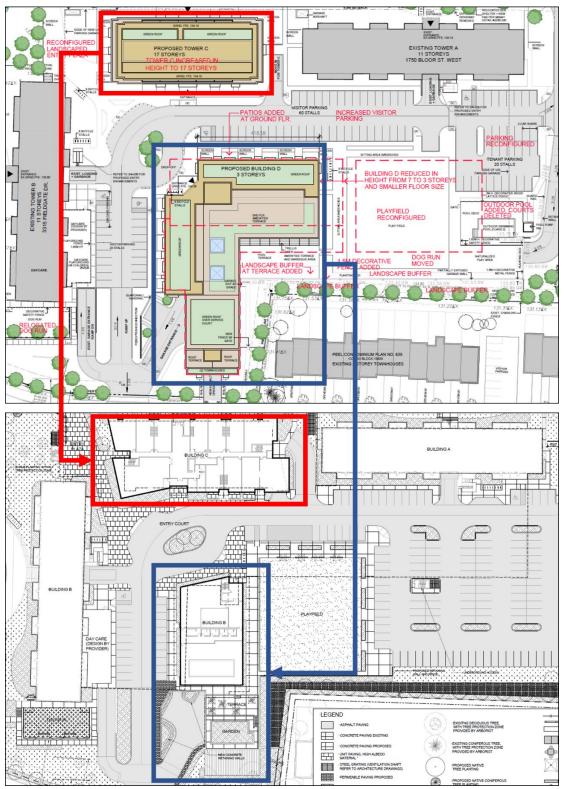


Image 1: Comparison of Previous (Top) and Currently Proposed (Bottom) Site Plans Showing Footprint Changes for Tower C (Red Boxes) and Building D (Blue Boxes)



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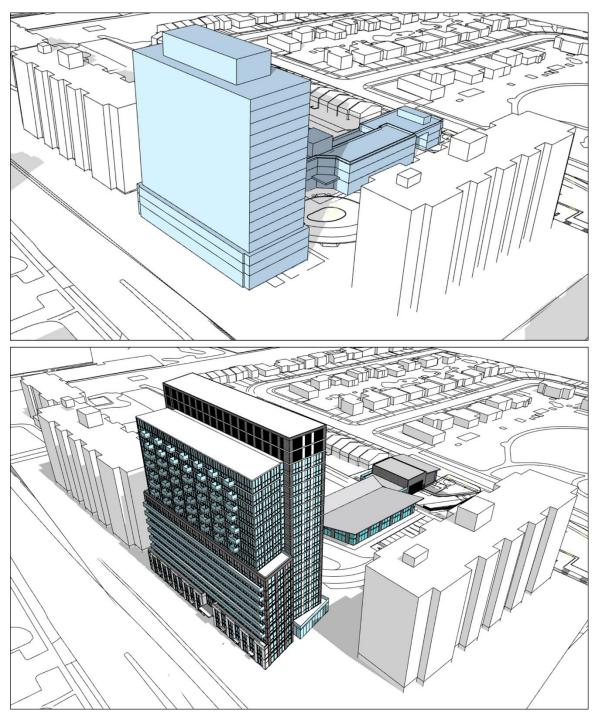


Image 2: Comparison of Previous (Top) and Currently Proposed (Bottom) Development Massings



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# **Impact on Wind Conditions**

The proposed building footprint change for Tower C, combined with the proposed increase in building height by two storeys, will increase wind speeds close to the tower itself. Wind control measures similar to those presented in the October 11, 2018 report (i.e., porous windscreens and canopies) would be required to reduce wind speeds to be appropriate for the intended uses of these areas.

The significant reduction in the building footprint of Building D in conjunction with the proposed decrease in height by one storey, are positive architectural design changes from a wind comfort perspective. Due to the significant reduction in the overall massing of the building, wind conditions near Building D (both in the areas of its proposed and previous footprints) are anticipated to be similar to the existing conditions presented in the October 11, 2018 report.

Due to the complexity of the site and the interactions between the proposed buildings with each other and with the existing buildings on the site, it is recommended that the currently proposed design of the development be tested in the wind tunnel to verify the predictions made herein, and assess the efficacy of wind mitigation measures.

# Closing

We trust that the above assessment satisfies your requirements at this time. Should you have any questions or require additional information, please do not hesitate to contact us.

Yours truly,

RWDI

Stefan Gopaul, M.A.Sc., EIT Technical Coordinator

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John Alberico, M.Sc., CCEP, WELL AP Senior Project Manager / Principal

SGG/JJA/smd