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October 4, 2024

Cross Realty LP  
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Distrikt  
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Toronto, Ontario M6B 1P5  
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**Re: Pedestrian Wind Study Results for Upcoming Submission to the Town of Oakville  
157 & 165 Cross Ave  
RWDI Reference No. 2306764**

Dear Clarence,

Rowan Williams Davies & Irwin Inc. (RWDI) has prepared this letter to comment on the potential wind conditions that may result from recent design changes to the proposed project at 157 & 165 Cross Avenue in Oakville, Ontario.

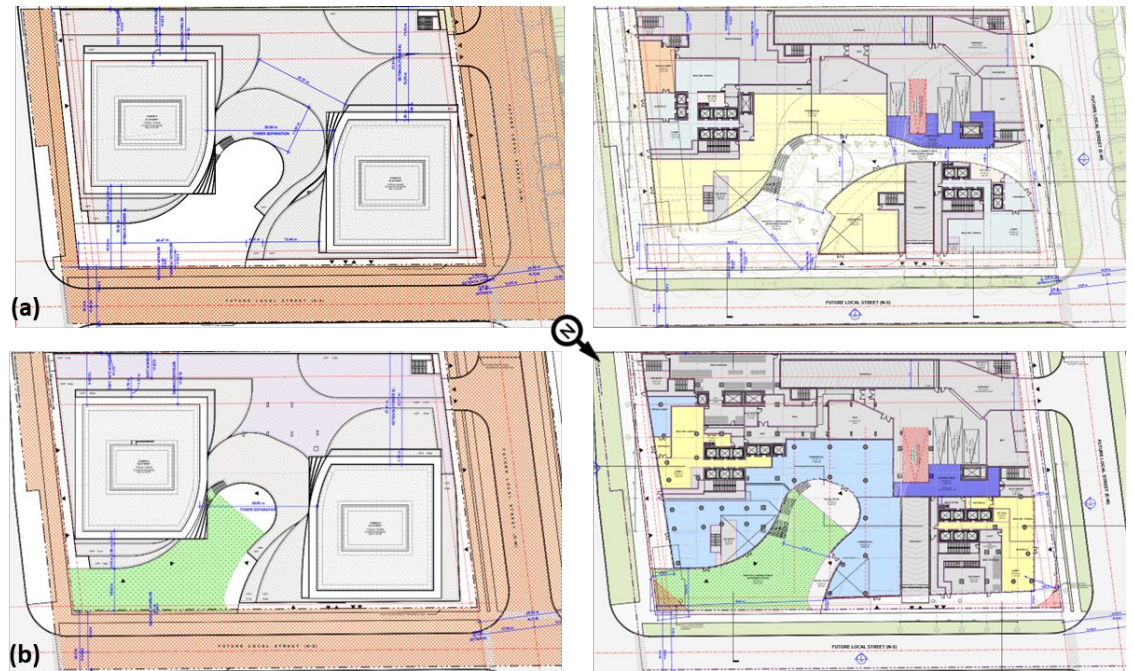
RWDI conducted an initial pedestrian wind assessment using computational fluid dynamics (CFD) tools for the then-proposed development in August 2023. Another pedestrian wind assessment followed in February 2024 using the same CFD tools for the revised drawings received by RWDI on January 29 and February 5, 2024. Our findings were summarized in the attached report:

*Report – Pedestrian Wind Comfort Assessment – 157 & 165 Cross Ave, Oakville, RWDI #2306764,  
February 13, 2024, by Henrique D.L. Gambassi, Hanqing Wu and Scott Bell.*

The proposed towers were significantly taller than their existing surroundings and as a result, their interaction with the prevailing winds was expected to induce higher wind speeds at ground level when compared to the existing scenario. Design features such as the low podium of the towers helped to moderate the wind impact at grade, but uncomfortable or even unsafe wind conditions were predicted around the exposed building corners and between the proposed towers at both the ground and amenity levels.

#### [Updated Tower Designs](#)

The design has been advanced since the February 2024 wind assessment, as suggested by the updated drawings received by RWDI on September 11, 2024. While the general building massing remains similar, there are several changes that may potentially alter the local wind conditions on and around the project site. Image 1 shows the site and ground floor plans used for the last CFD wind assessment (Image 1a), and plans included in the current architectural set (Image 1b). This can be used as a reference for the following wind discussions.



**Image 1: Site Plans and Ground Floor Plans (a) used in the February 13, 2024 report and (b) Received on September 11, 2024**

- As shown by the site plans (left diagrams in Image 1), the tower floor dimensions and locations are similar between those used for the February 13, 2024 report (Image 1a) and included the current design (Image 1b). The predicted wind conditions in the attached report are expected to remain valid on and around the site in general.
- The two proposed towers were modelled in the CFD simulation at 61 and 45 storeys, while they are now 58 and 50 storeys in the current drawings, respectively. Due to the substantial heights and slender shapes of the proposed towers, the proposed height changes are considered minor and not expected to affect the predicted wind conditions.
- One noticeable change at the ground level is to remove the passageway under the podium around Tower B or reduce the privately-owned public accessible space. This is a positive change since windy conditions were previously predicted along the passageway.
- The elimination of the passageway is expected to improve the wind conditions in the privately-owned public accessible space, but may cause slightly increased wind speeds around the north corner of Tower B. However, these changes are not expected to be significant.



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### Concluding Remarks

In summary, the current building design has a general massing similar to that modelled in the CFD simulation. The height changes to the proposed towers are not expected to significantly alter the wind conditions, and the removal of the passageway under the podium is considered positive as it eliminates a windy area that is expected to improve the wind conditions over the privately-owned public accessible space. This may cause increased wind speeds around the north corner of Tower B, but the impact is expected to be insignificant. Overall, the wind predictions presented in RWDI's February 19, 2024 report remain valid.

The current wind assessment, based on CFD simulations for the project massing in February 2024 and recent design changes in September 2024, provides a general prediction of wind comfort and safety conditions on and around the project. It is our understanding that more detailed wind studies using physical models in a wind tunnel will be conducted at later design stages to confirm and quantify these wind conditions and to refine wind control strategies. In the interest of time, we trust this memo satisfies the current requirements for the city submission. Should you have any questions or require additional information, please do not hesitate to contact us.

Yours truly,

**RWDI**

A handwritten signature in black ink, appearing to read 'Hanqing Wu'.

Hanqing Wu, Ph.D., P.Eng.  
Senior Technical Director / Principal

A handwritten signature in black ink, appearing to read 'Scott Bell'.

Scott Bell  
Project Manager



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## Statement of Limitations

This letter was prepared by Rowan Williams Davies & Irwin Inc. ("RWDI") for Cross Realty LP ("Client"). The findings and conclusions presented in this letter have been prepared for the Client and are specific to the 157 & 165 Cross Ave project described herein ("Project"). The conclusions and recommendations contained in this letter are based on the information available to RWDI when this letter was prepared. Because the contents of this letter may not reflect the final design of the Project or subsequent changes made after the date of this letter, RWDI recommends that it be retained by Client during the final stages of the project to verify that the results and recommendations provided in the previous report and this letter have been correctly interpreted in the final design of the Project.

The conclusions and recommendations contained in the previous report and this letter have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report/letter and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by Client or any other third party arising therefrom.

Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this letter carefully review the stated assumptions contained herein and to understand the different factors which may impact the conclusions and recommendations provided.