

# GRADIENTWIND

ENGINEERS & SCIENTISTS

May 13, 2022

Devtrin (Island Park) Inc.  
c/o Trinity Development Group Inc.  
77 Bloor Street West, Suite 1601  
Toronto, ON M5S 1M2

Attn: Robert Wells, MCIP, RPP, Associate Vice President, Development and Planning  
[rwells@trinity-group.com](mailto:rwells@trinity-group.com)

Dear Mr. Wells:

Re: Pedestrian Level Wind Study, Addendum  
70 Richmond Road, Ottawa  
Gradient Wind File 20-143-PLW Addendum May 2022

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Gradient Wind Engineering Inc. (Gradient Wind) was retained by Devtrin (Island Park) Inc. to perform a pedestrian level wind (PLW) study for the proposed nine-storey mixed-use residential development located at 70 Richmond Road in Ottawa, Ontario. A PLW study based on computer simulations using the computational fluid dynamics (CFD) technique was completed for the original architectural design and corresponding Zoning By-law Amendment (ZBLA) application submission in 2021<sup>1,2</sup>. The architectural design has been updated<sup>3</sup> to satisfy an initial submission of the Site Plan Control application.

The general massing of the current architectural design of the proposed development is similar to the original architectural design that was referenced to complete the PLW study but with some changes relating to wind impacts. Some of the more important drawing updates are summarized as follows:

- The height of the proposed development has increased by 3 metres (m). Specifically, the current design includes a maximum height of 36.3 m measured from the ground floor to the top of the mechanical penthouse (MPH) roof.

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<sup>1</sup> Hobin Architecture Incorporated, '70 Richmond Rd', [Jul 26, 2021]

<sup>2</sup> Gradient Wind Engineering Inc., 'Pedestrian Level Wind Study – 70 Richmond Road, Ottawa', [Aug 12, 2021]

<sup>3</sup> Hobin Architecture Incorporated, '70 Richmond Rd – Issued for SPA', [May 13, 2022]

- Levels 3 and above overhang the lower floors and the heritage building along the north elevation. For the original design, the overhang begins at Level 2.
- For the current design, terracing of the building along its south elevation includes setbacks at Levels 2, 6, 8, 9, and the MPH Level. For the original design, setbacks were provided at Levels 2, 5, 8, and the MPH Level (previously referred to as Level 10).

For the current design, wind conditions at grade level are expected to be similar to those that were predicted for the original design. Of note, conditions over the surrounding sidewalks along Richmond Road, Island Park Drive, and Leighton Terrace, as well as adjacent to all building access points serving the proposed development, are predicted to be acceptable for the intended uses throughout the year.

Wind conditions within the common amenity terraces atop the proposed development are expected to be calm and suitable for sitting during the summer season, which are considered acceptable.

Since a PLW study based on CFD simulations was completed for the original design of the proposed development, and the current architectural design is similar to the original design, a formal quantitative update to the PLW study is not recommended.

This concludes our addendum letter which, in combination with the PLW study that was completed in August 2021, is recommended to satisfy wind comfort requirements for an initial submission of the Site Plan Control application for the noted proposed nine-storey mixed-use residential development.

Sincerely,

***Gradient Wind Engineering Inc.***



Justin Ferraro, P.Eng., Principal

