

# GRADIENTWIND

ENGINEERS & SCIENTISTS

March 7, 2023

1081 Carling Avenue 2019 Co-tenancy  
c/o Taggart Realty Management  
225 Metcalfe Street, Suite 708  
Ottawa, ON K2P 1P9

Attn: Braden Walker  
[braden.walker@taggart.com](mailto:braden.walker@taggart.com)

Dear Mr. Walker:

Re: Pedestrian Level Wind Study Addendum  
1081 Carling Avenue, Ottawa  
Gradient Wind File 21-162

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Gradient Wind Engineering Inc. (Gradient Wind) completed a computational pedestrian level wind (PLW) study for the first Zoning By-law Amendment (ZBLA) application submission<sup>1</sup> for the proposed development located at 1081 Carling Avenue in Ottawa. The study was conducted based on architectural drawings of the proposed development provided by Hobin Architecture Inc. in August 2021.<sup>2</sup> The current architectural drawings, which were distributed to the consultant team in February 2023<sup>3</sup> in preparation for a resubmission of the ZBLA application, include the following changes:

- The West Tower has been reduced in height from 22 to 16 storeys. The tower is served by a 4-storey podium, while two distinct floorplates shape the tower. Specifically, floorplate one comprises Levels 5 to 12, inclusive, while floorplate two comprises Levels 13 to 16, inclusive.
  - The West Tower has also been adjusted to accommodate a 5 metre (m) by 5 m site triangle at the corner of Carling Avenue and Hamilton Avenue South.

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<sup>1</sup> Gradient Wind Engineering Inc., '1081 Carling Avenue – Pedestrian Level Wind Study', [Aug 27, 2021]

<sup>2</sup> Hobin Architecture Inc., '1081 Carling Avenue', [Apr 12, 2021]

<sup>3</sup> Hobin Architecture Inc., '1081 Carling Avenue', [Feb 15, 2023]

- The East Tower has been reduced in height from 28 to 27 storeys. The tower is served by a 4-storey podium, while two distinct floorplates shape the tower. Specifically, floorplate one comprises Levels 5 to 9, inclusive, while floorplate two comprises Levels 10 to 27, inclusive.
  - The East Tower has been extended along the south elevation, while the proposed landscape open space to the south has been reduced in area to accommodate the noted extension.

The original study concluded that all grade-level areas within and surrounding the subject site were predicted to be acceptable for the intended pedestrian uses throughout the year. Specifically, wind conditions over surrounding sidewalks, the nearby transit stops, in the vicinity of building access points, and within the proposed landscape open area to the south of the East Tower, were considered acceptable for the intended pedestrian uses throughout the year. For the windiest areas, such as the ground floor area between the West and East Towers, and the proposed parkland dedication area to the north of the East Tower, mitigation in the form of vertical wind screens integrated with hard and soft landscape elements was recommended to achieve calm and acceptable wind conditions for the intended pedestrian uses throughout the year. Additionally, mitigation in the form of tall perimeter wind screens, in combination with inboard wind barriers, was recommended for the outdoor amenity terraces serving the West Tower at Levels 7 and 23 and the East Tower at Levels 7 and 29 to achieve acceptable wind conditions for the intended pedestrian uses during the typical use period (May to October, inclusive).

Since the 2021 and 2023 massing designs are similar, save for the height reduction of the West Tower, wind conditions are expected to be similar, or slightly improved with the current massing. As such, the recommendations and conclusions provided in the detailed PLW report remain representative of the current site massing. No further action is recommended.

Sincerely,

**Gradient Wind Engineering Inc.**



Justin Ferraro, P.Eng.  
Principal