

GRADIENTWIND

ENGINEERS & SCIENTISTS

June 13, 2023

Groupe Oradev Inc.
1100 René-Lévesque Blvd O Bureau 700
Montréal, QC H3B 4N4

Attn: Simon Éthier, Président
s.ethier@groupeoradev.com

Dear Mr. Éthier:

Re: Pedestrian Level Wind Study Addendum
400 Coventry Road, Ottawa
Gradient Wind File 22-272 June 2023

Gradient Wind Engineering Inc. (Gradient Wind) completed a pedestrian level wind (PLW) study based on the computational fluid dynamics (CFD) technique to satisfy a Zoning By-Law Amendment application submission¹ for the proposed multi-building development located at 400 Coventry Road in Ottawa, Ontario. The study was conducted based on architectural drawings of the proposed development provided by NEUF architect(e)s in August 2022². The current architectural drawings, which were distributed to the consultant team in May 2023³ in preparation for a Site Plan Control application submission, include the following notable changes:

- Tower A now rises to 18 storeys, while Towers C1, D, E1, and E2 now rise to 28, 20, 25, and 23 storeys, respectively.
- The podium now steps back at Level 3 instead of Level 2 along the west and southwest elevations of Tower E2, and along the south elevation of Tower E1.
- Towers C1 and B are connected by a shared 6-storey podium, and a 1-storey grade-level passageway has been added between Towers A and B.

¹ Gradient Wind Engineering Inc., 'Pedestrian Level Wind Study, 400 Coventry Road', [Oct 20, 2022]

² NEUF architect(e)s, '400 Coventry, Mixed Use Development', [Aug 16, 2022]

³ NEUF architect(e)s, '400 Coventry, Mixed Use Development', [May 4, 2023]

- The tower setbacks from the east and west podium edges have been reduced for Tower D, and Tower C1 now extends to the grade level along its northwest elevation.
- Tower C2 has been extended to the west, and the shared podium between Towers C1 and C2 has been set back to the east, further enclosing the interior courtyard serving Towers A, B, C1, and C2.

The PLW study in October 2022 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, inclusive of the nearby public sidewalks, walkways, laneways, transit stops, the parkland, existing parking lots, surface parking, and in the vicinity of building access points. The sole exception was the conditions in the vicinity of the primary entrances serving Tower D, which were predicted to experience somewhat windy conditions owing to the channeling of winds between Towers C and D and between Towers D and E1. It was recommended that these entrances be recessed within the façade or flanked by tall wind screens.

Considering the revisions in the architectural massing between the 2022 and 2023 massing, a detailed PLW study that considers the 2023 massing to satisfy Site Plan Control application submission requirements is recommended.

Sincerely,

Gradient Wind Engineering Inc.

Justin Ferraro, P.Eng.
Principal

