

GRADIENTWIND

ENGINEERS & SCIENTISTS

March 6, 2026

Trim Road 1 LP Inc.
115 Champagne Avenue South
Ottawa, ON K1S 3L8

Attn: Martin Chenier, President of Vuze Construction
mchenier@vuzeconstruction.com

Dear Mr. Chenier,

Re: Pedestrian Level Wind Study Addendum
1015 Tweddle Road, Ottawa
Gradient Wind File 20-087

Gradient Wind Engineering Inc. (Gradient Wind) completed a computational pedestrian level wind (PLW) study in October 2024 for the proposed development located at 1015 Tweddle Road in Ottawa, Ontario¹, based on architectural drawings provided by NEUF architect(e)s in October 2024. The work was performed to satisfy Zoning By-Law Amendment (ZBLA) application submission requirements.

The subject site is located on the banks of the Ottawa River and is exposed to prevailing winds from the west clockwise to the north-northwest. The surrounding rural environs comprise sparse massing to the north-northeast and east and in the southwest compass quadrant. The October 2024 study predicted that conditions over the area prior to the introduction of the proposed development are to be windy and suitable for mostly strolling during the summer and autumn and walking during the spring and winter seasons. An updated computational PLW study comprising the mitigation strategy was completed in April 2025² based on architectural drawings provided by NEUF architect(e)s in January 2025. The study concluded that the mitigation strategy was effective in significantly improving wind conditions within and surrounding the subject site. Most isolated pedestrian areas that were predicted to experience wind conditions that may approach the wind safety threshold had been resolved, with the exception of an isolated region at grade to the northwest of Tower B2. Wind conditions within the amenity terraces serving the proposed development at Levels 2 and 3 were predicted to be suitable for a mix of sitting and

¹ Gradient Wind Engineering Inc., '1015 Tweddle Road – Pedestrian Level Wind Study', [October 17, 2024]

² Gradient Wind Engineering Inc., '1015 Tweddle Road – Pedestrian Level Wind Study', [April 2, 2025]

standing during the typical use period (May to October, inclusive). Of note, vegetation in raised planting beds were proposed throughout the development at the time of the January 2025 study. This vegetation was omitted from the simulation model, as is industry standard practice, due to the difficulty of providing an accurate seasonal representation of vegetation, as described in Section 4.1 of the April 2025 study. The inclusion of this vegetation, particularly the coniferous vegetation which is in full foliage throughout the year (including the windier winter season and shoulder months) is expected to significantly improve upon the wind conditions at grade as the vegetation buffers against the salient winds moving along the facades and through the corridor wings of the development at grade.

It is continued to be recommended that:

1. The primary access point to Tower B1 be relocated or be recessed into the façade by at least 2 m.
2. The primary residential access point to Tower B4 and the commercial/secondary access points located between Towers B1 and B2 and between Towers B3 and B4 be recessed into their respective facades by at least 2 m.
3. Implement typical transit shelters for nearby transit stops along Jeanne d’Arc Boulevard North to provide pedestrians with a means to seek relief from the elements, including during periods of strong wind activity.
4. As the landscape design evolves, it is recommended that where seating areas will be programmed within the pedestrian plazas, linear park, and central gardens, to implement targeted mitigation specifically adjacent to these areas. Such mitigation would include vertical barriers (screens, fencing, sculptures/artwork) and coniferous trees in dense arrangements in combination with strategically placed seating with high-back benches and other local wind mitigation.

In coordination with the landscape architects and building design team, the core elements of the grade-level mitigation strategy comprise the following:

1. An architectural pavilion/kiosk (4.5-m-tall) connected to the canopy located to the east of Tower B1.



2. Overhead wind protection in the form of permanent shading structures (3.5 to 5 m in height), 4.5-m-tall pergolas over seating areas, and large canopies along the perimeters of the podia, extending from the east facade of the podium serving Tower B1, from the west clockwise to the east facade of the podium serving Towers B2 and B3, and from the southwest facade of the podium serving Tower B4. It is recommended that overhead wind protection structures along the north perimeter of the subject site include north-facing walls, mostly solid (at least 70% solid), to shelter against direct wind from the Ottawa River.
3. Sculptures acting as wind barriers (3.5 to 4.5 m in height), located to restrict wind channelling into the wing corridors, and elevated planters (approximately 0.5-m-tall) along the wing corridors.
4. Landscaping elements including fixed pergolas with north-facing vertical walls along the north perimeter of the subject site, planters and architectural/structural wind barriers located between Towers B1 and B2 and Towers B3 and B4, fixed umbrellas over seating areas near the entrance plaza, a boulder wall along the north perimeter of the main central plaza, and
5. Programming has been adjusted at grade to primarily implement seating areas where conditions are calmer, while including more active-use areas with complementary furniture, such as play areas or fitness areas positioned throughout the space where wind conditions are less calm during the typical use period.
6. An intentional planting design has been incorporated that places coniferous trees to address windier pedestrian comfort conditions within the subject site at grade, serving as wind mitigation obstacles throughout the year, as noted above.

Sincerely,

Gradient Wind Engineering Inc.



David Huitema, M.Eng., P.Eng.
CFD Lead Engineer