

## 3085 HURONTARIO STREET

MISSISSAUGA, ONTARIO

PEDESTRIAN WIND STUDY

RWDI # 2300365

September 19, 2023

### SUBMITTED TO

**Helen Xie**

Development Manager

[Helen.Xie@mattamycorp.com](mailto:Helen.Xie@mattamycorp.com)

M: 437.230.3865

**Mattamy Homes**

7880 Keele Street

Vaughan, Ontario, L4K 4G7

### SUBMITTED BY

**Mu'taz Suleiman, M.Sc., EIT**

Technical Coordinator

[Mutaz.Suleiman@rwdi.com](mailto:Mutaz.Suleiman@rwdi.com)

**Maryam Al Labbad, M.A.Sc., EIT**

Technical Coordinator

[Maryam.ALlabbad@rwdi.com](mailto:Maryam.ALlabbad@rwdi.com)

**Hanqing Wu, Ph.D., P.Eng.,**

Senior Technical Director / Principal

[Hanqing.Wu@rwdi.com](mailto:Hanqing.Wu@rwdi.com)

**Jordan Gilmour, P.Eng.**

Project Delivery Manager

[Jordan.Gilmour@rwdi.com](mailto:Jordan.Gilmour@rwdi.com)

M: 613.539.5446

**RWDI**

600 Southgate Drive

Guelph, Ontario, N1G 4P6

T: 519.823.1311



## EXECUTIVE SUMMARY

RWDI was retained to conduct a pedestrian wind assessment for the proposed 3085 Hurontario Street project in Mississauga, Ontario. An initial round of wind tunnel testing was conducted to assess the baseline wind comfort and safety conditions on and around the proposed development under the Existing and Proposed configurations of the site and surroundings. A subsequent round of wind tunnel testing was conducted for the Proposed configuration to quantify the effectiveness of mitigation measures at grade and above-grade levels to help improve wind conditions. Additionally, Future configurations (with and without mitigations) were assessed to evaluate the wind impact of the future surrounding buildings on the Proposed development site.

The results were analyzed using the regional wind climate records and evaluated against the RWDI Pedestrian Wind Criteria for pedestrian comfort (pertaining to common wind speeds conducive to different levels of human activity) and pedestrian safety (pertaining to infrequent but strong gusts that could affect a person's footing). The predicted wind conditions are presented in Figures 1A through 3E for the Existing, Proposed, Proposed with Mitigation, Future and Future with Mitigation configurations, respectively. The associated wind speeds are presented in Table 1. The results can be summarized as follows:

- In the Existing configuration, wind conditions at all areas assessed on and around the site are appropriate for the intended pedestrian use throughout the year and meet the wind safety criterion.
- With the addition of the proposed development, conditions remain suitable for the intended use on the off-site areas and at most areas on site. Exceptions are localized areas between the proposed buildings, including the Pocket Park and Village Plaza, as well as exposed building entrances and corners, where wind conditions are expected to be higher than desired for the intended use in the summer and/or uncomfortable in the winter.
- Wind speeds that exceed the pedestrian safety criterion are anticipated at a few locations on and around the site, primarily in the gap between Buildings 3 and 4 and around exposed building corners.
- Wind speeds on the Level 5 amenity spaces of Buildings 1 and 2, and Level 7 of Buildings 3 and 4 are considered higher than desired for passive use throughout the year. The pedestrian safety criterion is expected to be exceeded.
- With the implementation of the mitigation measures in the Proposed configuration, improvement in terms of reducing the wind speeds was achieved at multiple areas at grade level. Conditions at above-grade areas are expected to be generally similar to the baseline Proposed configuration.
- The addition of the future surrounding buildings is expected to result in a significant reduction in wind speeds on and around the development site. Further reduction in wind speeds is anticipated with the addition of the on-site wind mitigation measures.



# TABLE OF CONTENTS

## EXECUTIVE SUMMARY

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>INTRODUCTION .....</b>                                   | <b>1</b>  |
| 1.1      | Project Description.....                                    | 1         |
| 1.2      | Objectives .....  | 1         |
| <b>2</b> | <b>BACKGROUND AND APPROACH.....</b>                         | <b>2</b>  |
| 2.1      | Wind Tunnel Study Model.....                                | 2         |
| 2.2      | Meteorological Data.....                                    | 8         |
| 2.3      | Mississauga Pedestrian Wind Criteria .....                  | 9         |
| 2.4      | General Wind Flow Mechanisms.....                           | 10        |
| <b>3</b> | <b>RESULTS AND DISCUSSION .....</b>                         | <b>11</b> |
| 3.1      | Grade Level (Locations 1 through 130).....                  | 11        |
| 3.1.1    | Existing Configuration .....                                | 11        |
| 3.1.2    | Proposed Configuration .....                                | 11        |
| 3.1.3    | Proposed with Mitigation Configuration.....                 | 12        |
| 3.1.4    | Future Configuration .....                                  | 12        |
| 3.1.5    | Future Configuration with Mitigation .....                  | 13        |
| 3.2      | Above-Grade Amenity Levels (Locations 131 through 155)..... | 14        |
| <b>4</b> | <b>STATEMENT OF LIMITATIONS .....</b>                       | <b>16</b> |
| <b>5</b> | <b>REFERENCES .....</b>                                     | <b>18</b> |



## LIST OF FIGURES

Figure 1A: Pedestrian Wind Comfort Conditions – Existing Configuration – Summer  
Figure 1B: Pedestrian Wind Comfort Conditions – Proposed Configuration – Summer  
Figure 1C: Pedestrian Wind Comfort Conditions – Proposed with Mitigation Configuration – Summer  
Figure 1D: Pedestrian Wind Comfort Conditions – Future Configuration – Summer  
Figure 1E: Pedestrian Wind Comfort Conditions – Future with Mitigation Configuration – Summer

Figure 2A: Pedestrian Wind Comfort Conditions – Existing Configuration – Winter  
Figure 2B: Pedestrian Wind Comfort Conditions – Proposed Configuration – Winter  
Figure 2C: Pedestrian Wind Comfort Conditions – Proposed with Mitigation Configuration – Winter  
Figure 2D: Pedestrian Wind Comfort Conditions – Future Configuration – Winter  
Figure 2E: Pedestrian Wind Comfort Conditions – Future with Mitigation Configuration – Winter

Figure 3A: Pedestrian Wind Safety Conditions – Existing Configuration – Annual  
Figure 3B: Pedestrian Wind Safety Conditions – Proposed Configuration – Annual  
Figure 3C: Pedestrian Wind Safety Conditions – Proposed with Mitigation Configuration – Annual  
Figure 3D: Pedestrian Wind Safety Conditions – Future Configuration – Annual  
Figure 3E: Pedestrian Wind Safety Conditions – Future with Mitigation Configuration – Annual

## LIST OF TABLES

Table 1: Pedestrian Wind Comfort and Safety Conditions

# 1 INTRODUCTION

RWDI was retained to conduct a pedestrian wind assessment for the proposed 3085 Hurontario Street project in Mississauga, Ontario. This report presents the project objectives, approach and the main results from RWDI's assessment and provides conceptual wind control measures, where necessary. Our Statement of Limitations as it pertains to this study can be found in Section 4 of this report.

## 1.1 Project Description

The proposed development site is located on the northeast corner of the intersection of Kirwin Avenue and Hurontario Street (Image 1). The development comprises of four buildings, with a tower-on-podium design. The proposed Buildings 1, 2, 3, and 4 are approximately 130 m, 145 m, 98 m, and 85 m tall, respectively. Outdoor amenity areas planned on Levels 5 of Buildings 1 and 2, and on Levels 7 of Buildings 3 and 4.

## 1.2 Objectives

The objective of the study was to assess the effect of the proposed development on local conditions in pedestrian areas on and around the study site and provide recommendations for minimizing adverse effects, if needed. This quantitative assessment was based on wind speed measurements on a scale model of the project and its surroundings in one of RWDI's boundary-layer wind tunnels. These measurements were combined with the local wind records and compared to the Mississauga criteria for gauging wind comfort and safety in pedestrian areas. The assessment focused on critical pedestrian areas, including building entrances, public sidewalks/walkways, the Pocket Park and Village Plaza at grade, as well as above-grade outdoor amenity spaces.



Image 1: Aerial View of the Existing Site and Surroundings (Photo Courtesy of Google™ Earth)



## 2 BACKGROUND AND APPROACH

### 2.1 Wind Tunnel Study Model

To assess the wind environment around the proposed project, a 1:300 scale model of the project site and surroundings was constructed for the wind tunnel tests of the following configurations:

- A - Existing: Existing site with existing surroundings (Image 2A);
- B - Proposed: Proposed project with existing surroundings (Image 2B);
- C - Proposed with Mitigation: Proposed project with mitigation and existing surroundings (Image 2C);
- D - Future: Proposed project with future surroundings (Image 2D); and,
- E - Future with Mitigation: Proposed project with mitigation and future surroundings (Image 2E).

The wind tunnel model included all relevant surrounding buildings and topography within an approximate 360 m radius around the study site. The wind and turbulence profiles in the atmospheric boundary layer beyond the modelled area were also simulated in RWDI's wind tunnel. The wind tunnel model was instrumented with 155 specially designed wind speed sensors to measure mean and gust speeds at a full-scale height of approximately 1.5 m above local grade in pedestrian areas throughout the study site. The placement of wind measurement locations was based on our experience and understanding of the pedestrian usage for this site. Wind speeds were measured for 36 directions in 10-degree increments. The measurements at each sensor location were recorded in the form of ratios of local mean and gust speeds to the mean wind speed at a reference height above the model.

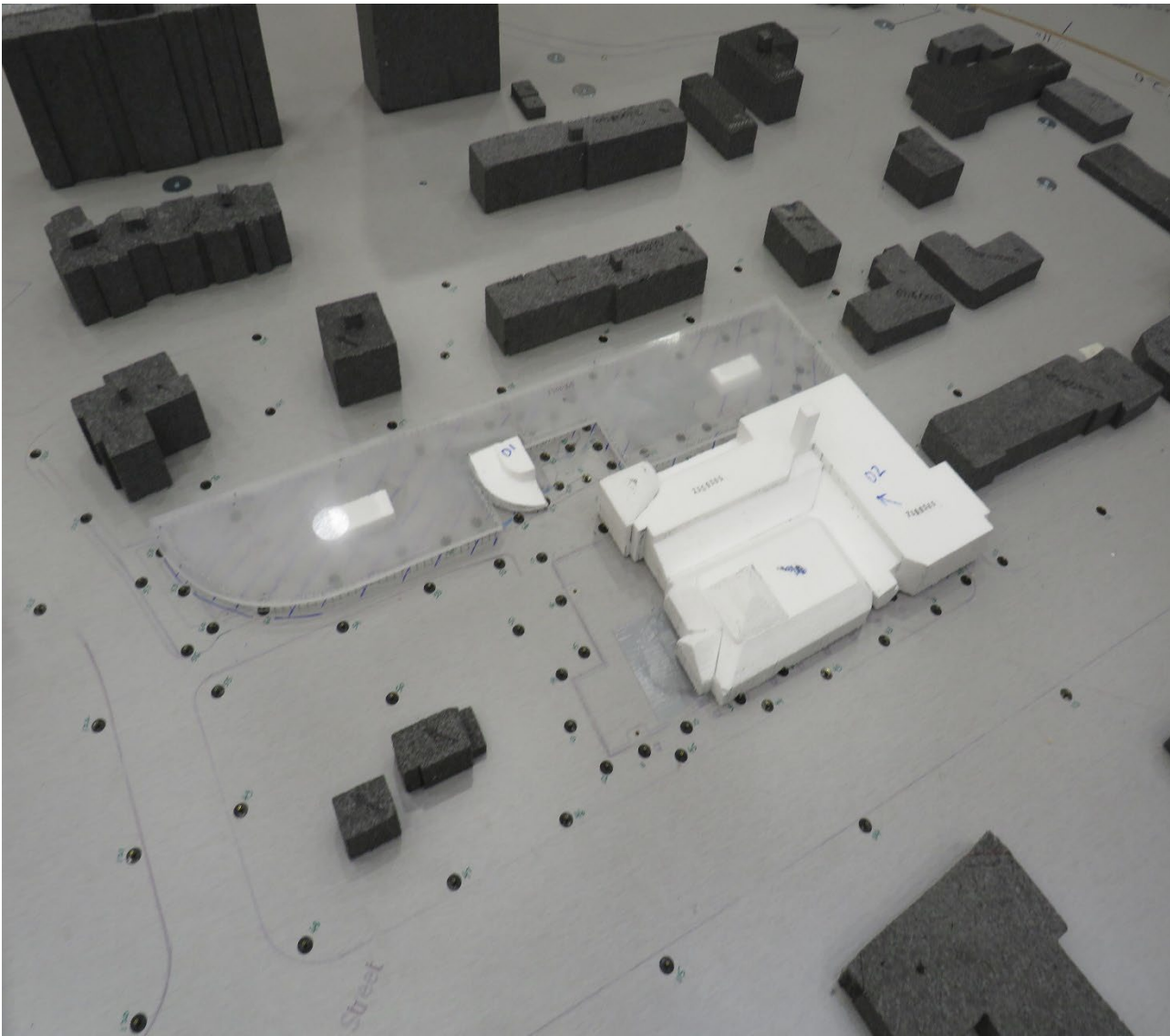
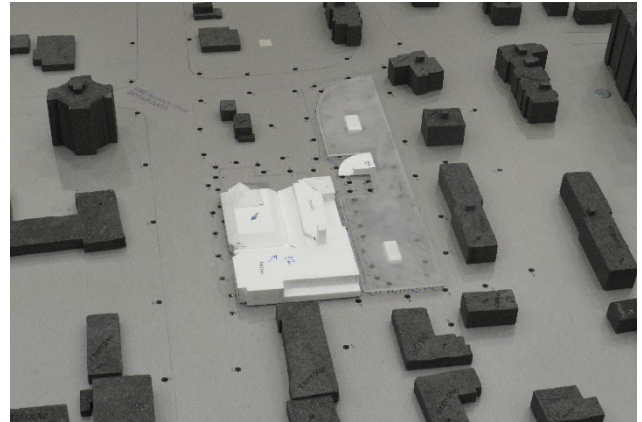


Image 2A: Wind Tunnel Study Model – Existing Configuration

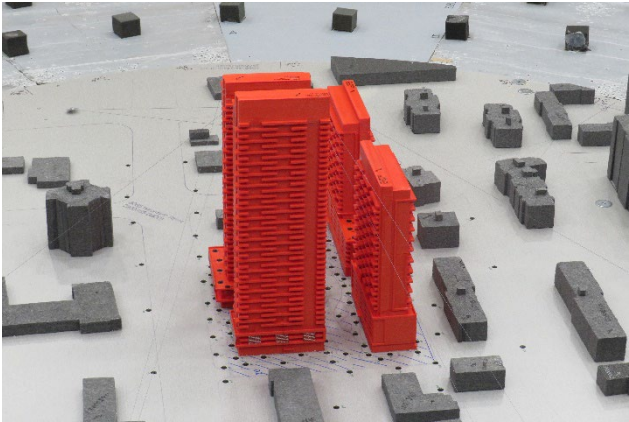


Image 2B: Wind Tunnel Study Model – Proposed Configuration





Image 2C: Wind Tunnel Study Model – Proposed with Mitigation Configuration

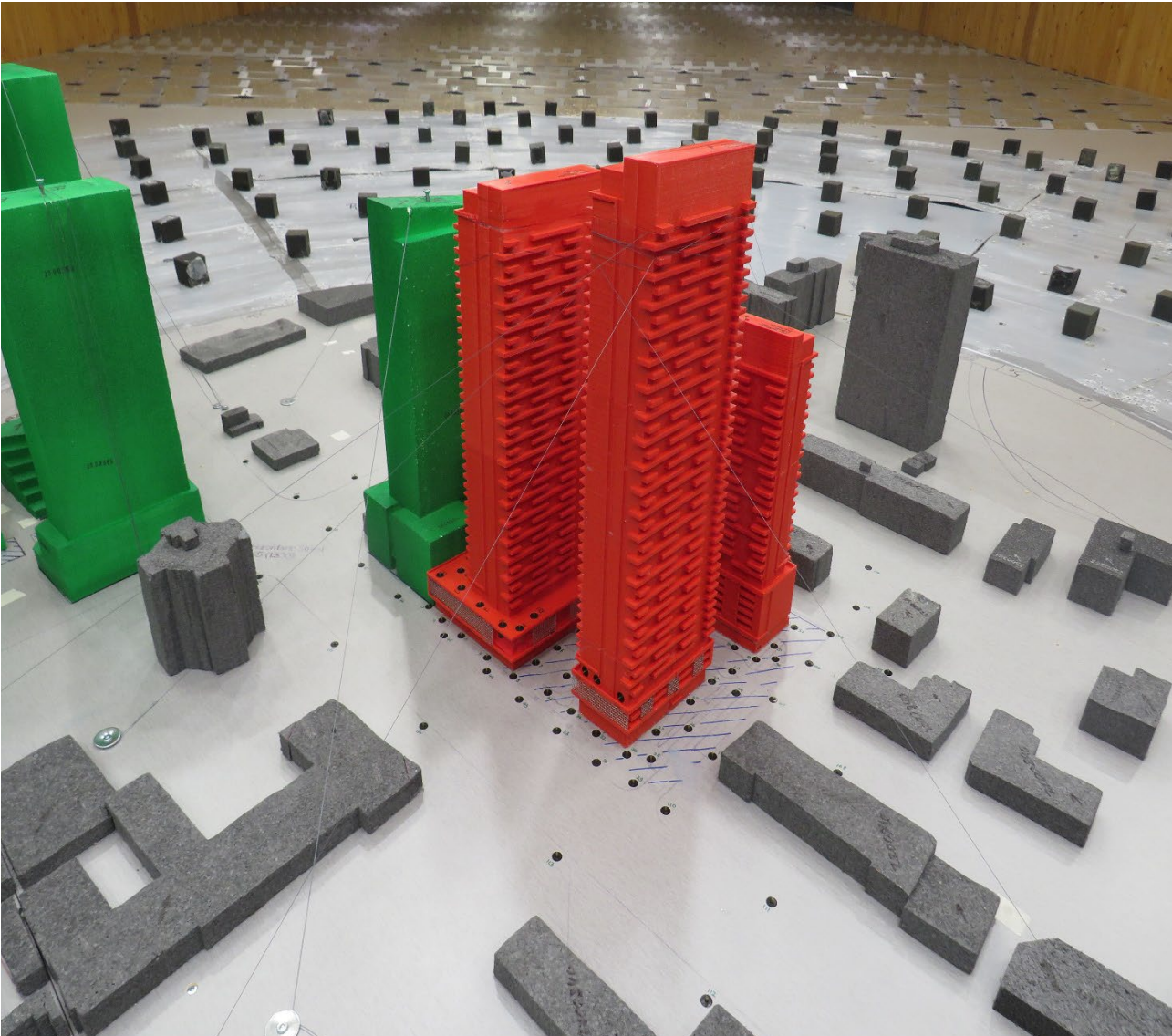
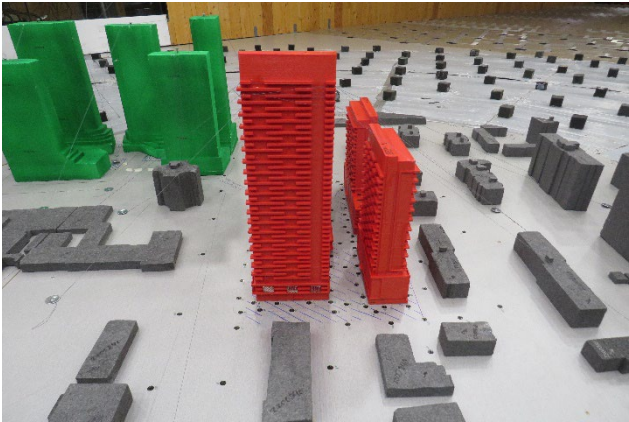
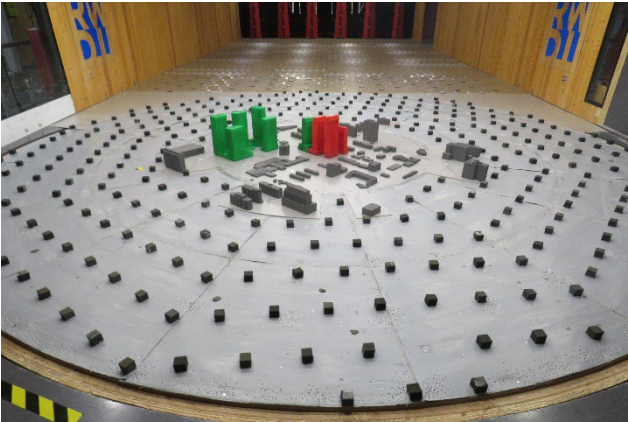


Image 2D: Wind Tunnel Study Model – Future Configuration

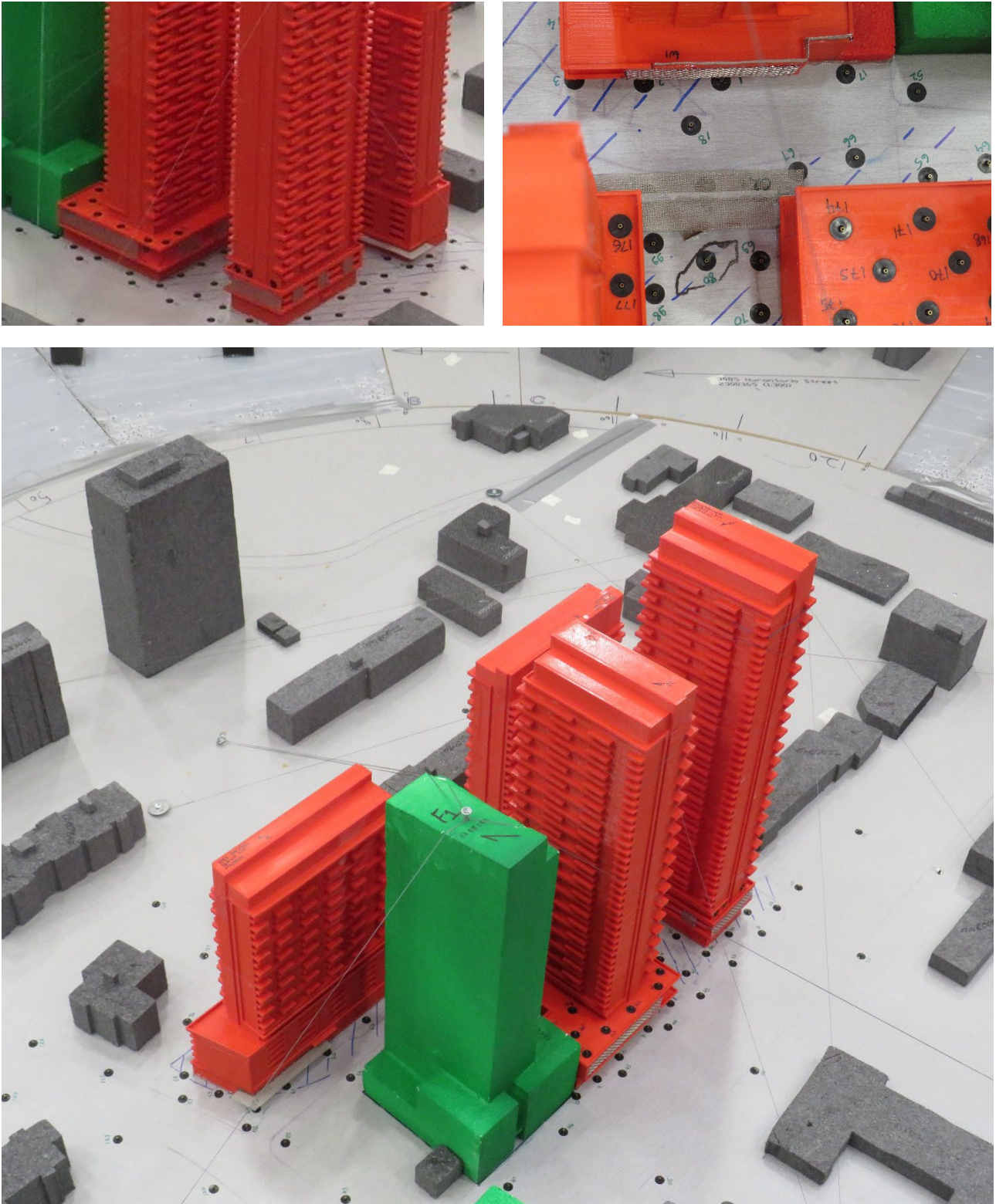
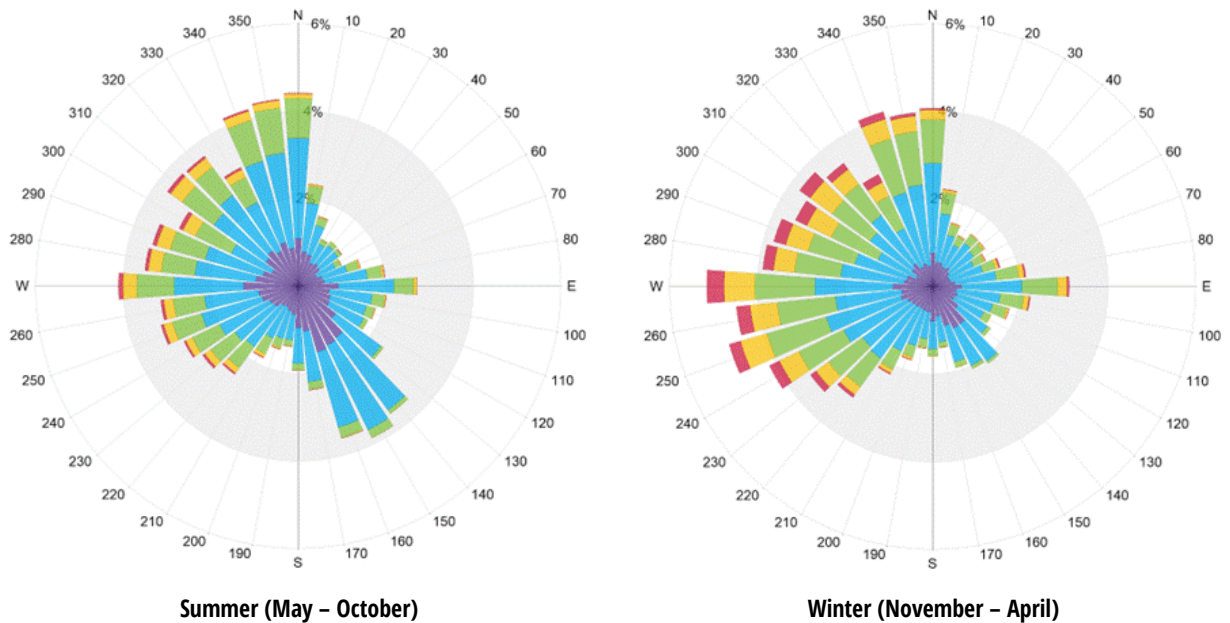


Image 2E: Wind Tunnel Study Model – Future with Mitigation Configuration

## 2.2 Meteorological Data

Wind statistics recorded at Toronto Pearson International Airport between 1992 and 2022, inclusive, were analyzed for the Summer (May through October) and Winter (November through April) seasons. Image 3 graphically depicts the directional distributions of wind frequencies and speeds for these two seasons. Winds from the southwest through north directions are predominant during both the summer and winter, as indicated by the wind roses. Strong winds of a mean speed greater than 30 km/h measured at the airport (at an anemometer height of 10 m) occur for 4.8% and 11.5% of the time during the summer and winter seasons, respectively.

Wind statistics were combined with the wind tunnel data to predict the frequency of occurrence of full-scale wind speeds. The full-scale wind predictions were then compared with the Mississauga wind criteria for pedestrian comfort and safety.



|  | Wind Speed (km/h) | Probability (%) |        |
|--|-------------------|-----------------|--------|
|  |                   | Summer          | Winter |
|  | Calm              | 5.0             | 3.5    |
|  | 1-10              | 30.9            | 22.6   |
|  | 11-20             | 42.9            | 39.9   |
|  | 21-30             | 16.3            | 22.5   |
|  | 31-40             | 3.9             | 8.1    |
|  | >40               | 0.9             | 3.4    |

**Image 3: Directional Distribution of Winds Approaching Toronto Pearson International Airport between 1992 and 2022**

## 2.3 Mississauga Pedestrian Wind Criteria

The Mississauga pedestrian wind criteria, revised in February 2023, are specified in the Urban Design Terms of Reference, “Pedestrian Wind Comfort and Safety Studies”. The following defines the criterion in detail.

| Comfort Category     | GEM Speed (km/h) | Description   |
|----------------------|------------------|---|
| <b>Sitting</b>       | ≤ 10             | Calm or light breezes desired for outdoor restaurants and seating areas where one can read a paper without having it blown away |
| <b>Standing</b>      | ≤ 15             | Gentle breezes suitable for main building entrances and bus stops   |
| <b>Walking</b>       | ≤ 20             | Relatively high speeds that can be tolerated if one’s objective is to walk, run or cycle without lingering                      |
| <b>Uncomfortable</b> | > 20             | Strong winds of this magnitude are considered a nuisance for most activities, and wind mitigation is typically recommended      |

**Notes:**

- (1) Gust Equivalent Mean (GEM) speed = max (mean speed, gust speed/1.85); and,
- (2) GEM speeds listed above are based on a seasonal exceedance of 20% of the time (e.g., between 6:00 and 23:00).

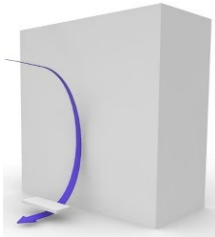
| Safety Criterion | Gust Speed (km/h) | Description  |
|------------------|-------------------|--|
| <b>Exceeded</b>  | > 90              | Excessive gust speeds that can adversely affect a pedestrian's balance and footing. Wind mitigation is typically required. |

**Notes:**

- (1) Based on an annual exceedance of 9 hours or 0.1% of the me for 24 hours a day.

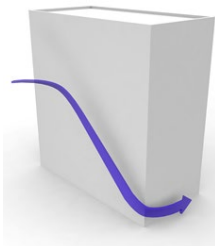
## 2.4 General Wind Flow Mechanisms

In the discussion of wind conditions, reference is made to the following wind flow mechanisms (Image 4):



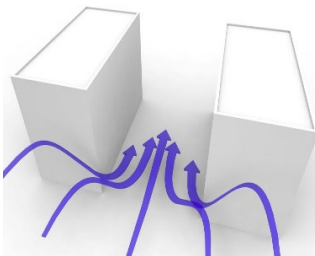
### **DOWNWASHING**

Tall buildings tend to intercept the stronger winds at higher elevations and redirect them to the ground level. This is often the main cause for wind accelerations around large buildings at the pedestrian level.



### **CORNER ACCELERATION**

When wind moves around the buildings a localized increase in the wind activity or corner acceleration can be expected around the exposed building corners at pedestrian level. The effect is intensified when the wind approaches at an oblique angle to a tall façade and are deflected down and around the exposed corners.



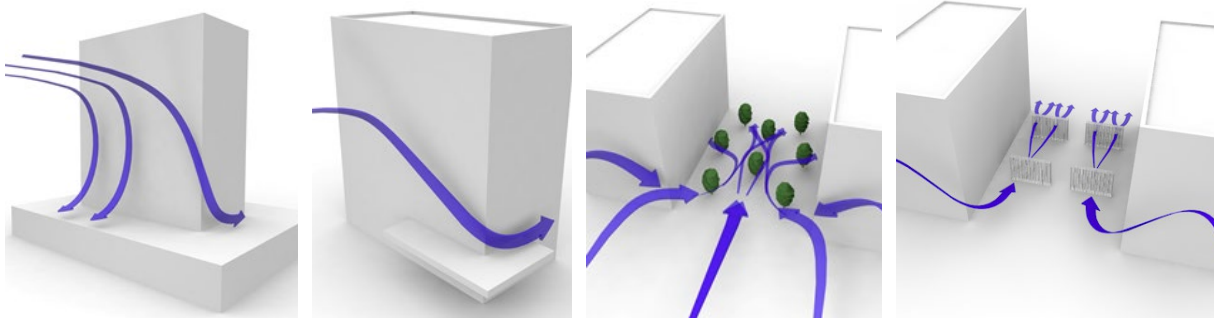
### **CHANNELLING EFFECT**

Wind flow tends to accelerate through the space between buildings, under bridges or in passages through buildings due to channelling effect caused by the narrow gap. The effect is intensified if the channel is aligned with the predominant wind direction.

**Image 4: General Wind Flow Mechanisms**

If these building/wind combinations occur for prevailing winds, there is a greater potential for increased wind activity. Design details such as setting back a tall tower from the edges of a podium, deep canopies close to ground level, wind screens, tall trees with dense landscaping, etc. (Image 5) can help reduce wind speeds. The choice and effectiveness of these measures would depend on the exposure and orientation of the site with respect to the prevailing wind directions and the size and massing of the proposed buildings.

### **Podium/tower setback, canopy, landscaping and wind screens (left to right)**



**Image 5: Common Wind Control Measures**

## 3 RESULTS AND DISCUSSION

The predicted wind conditions are shown on site plans in Figures 1A through 3B located in the “Figures” section of this report and the associated wind speeds are presented in Table 1, located in the “Tables” section of this report. The following is a detailed discussion of the suitability of the predicted wind conditions for the anticipated pedestrian use of each area of interest.

### 3.1 Grade Level (Locations 1 through 130)

Wind conditions comfortable for walking are appropriate for sidewalks and walkways as pedestrians will be active and less likely to remain in one area for prolonged periods of time. Lower wind speeds conducive to standing are preferred at building entrances, outdoor park/plaza, and amenity spaces where pedestrians are apt to linger.

#### 3.1.1 Existing Configuration

Throughout the year, wind speeds are comfortable for sitting or standing at most areas assessed, apart from a few exposed locations where wind speeds are comfortable for walking in the winter (Figures 1A and 2A). Wind conditions on and around the existing site are suitable for the intended use of various pedestrian areas.

Wind speeds at all locations assessed meet the pedestrian wind safety criterion (Figure 3A).

#### 3.1.2 Proposed Configuration

With the addition of the proposed development, higher wind speeds are predicted on and around the site on an interim basis, due to the proposed development being significantly taller than the surrounding buildings until such time as the surrounding area evolves, as shown in Section 3.1.4. During the summer, wind conditions on and around the development are expected to be comfortable for standing or walking at most areas assessed, which is considered comfortable for active pedestrian use (Figure 1B). Wind speeds in the Plaza Village between Buildings 1 and 2, and in the Pocket Park between Buildings 3 and 4 are generally appropriate for walking, which are higher than desired for passive uses in the summer, when these areas would be typically in use (Figure 1B).

During the winter, wind speeds comfortable for standing or walking are expected at most areas, with elevated wind speeds around the base of the buildings (Figure 2B). Uncomfortable wind conditions are expected at multiple areas around the buildings, including the Pocket Plaza. These elevated wind speeds and uncomfortable wind conditions are driven by westerly winds downwashing off the building façades, and subsequently accelerating around exposed building corners and along the gaps between buildings.

Higher-than-desired wind speeds are anticipated near the north entrances of Buildings 1 and 2 (Locations 1 and 21) year-round (Figures 1B and 2B), and near a few entrances along the south/east façades of Buildings 3 and 4 (Locations 65, 69, 83 and 86), during the winter (Figure 2B).

Wind speeds that exceed the pedestrian wind safety criterion are expected mainly near building corners and in the Pocket Park between Buildings 3 and 4 (Locations 17, 20, 23, 28, 30, 56, 60, 67, 68, 76, 79, 80, 88, 89, 97, 98, 100, and 109 in Figure 3B and Table 1).

### 3.1.3 Proposed with Mitigation Configuration

A subsequent round of wind tunnel testing was conducted for the Proposed configuration to quantify the effectiveness of adding several mitigation measures (Image 2C), including:

- A canopy along the south side of Buildings 3, that wraps around the southeast corner of the podium, and extends to the gap between Buildings 3 and 4.
- A canopy along the south side of Building 4, that wraps around the southwest corner of the podium.
- Wind screens in the Pocket Park (2 m tall and 20-30% porous).
- Wind screen along the north perimeter of the podium of Building 1 (3 m tall including parapet and 30% porous).

With the above-mentioned mitigations measures, reduced wind speeds in the area observed compared to the Proposed Configuration. During the summer, wind conditions continue to be comfortable for standing or walking at most areas assessed (Figure 1C). During the winter, wind speeds conducive to walking or calmer are expected at most areas assessed, with uncomfortable wind conditions expected at fewer locations (16 total in Figure 2C) compared to the proposed conditions (26 total in Figure 2B).

With the addition of canopies on Buildings 3 and 4, wind speeds comfortable for standing or calmer are expected at all entrances of Buildings 3 and 4, year-round (Figures 1C and 2C). Wind conditions at most entrances of Buildings 1 and 2 are anticipated to remain appropriate for entry use. Elevated wind speeds are still expected throughout the year near the north entrances of Buildings 1 and 2 (Locations 1 and 21 in Figures 1C and 2C).

The pedestrian wind safety criterion is expected to be exceeded at fewer location compared to the Proposed Configuration (Locations 17, 20, 23, 28, 30, 60, 67, 68, 76, 88, 89, and 109 in Figure 1C and Table 1).

### 3.1.4 Future Configuration

With the future developments in place, reduced wind speeds are observed throughout the project site, primarily along Hurontario Street and in the Pocket Park. Wind conditions in the extended surrounding areas are expected to remain comfortable for standing or walking at most areas assessed (Figure 1D). During the winter, wind speeds comfortable for walking or calmer are expected at most areas assessed. Uncomfortable wind conditions are expected at fewer locations compared to the Proposed Configuration (Locations 3, 47, 53, 54, 58, 76, and 117 in Figure 2D). Higher-than-desired wind speeds are anticipated near a few entrance locations of Buildings 2 and 4 throughout the year (Locations 21, 62, 65, and 69 in Figures 1D and 2D), in addition to entrance locations of Buildings 1 and 3 during the winter months (Locations 1, 61, and 86 in Figure 2D).

Wind speeds that meet the pedestrian wind safety criterion are expected at most areas assessed, apart from two off-site locations (Locations 76 and 118 in Figure 3D and Table 1).

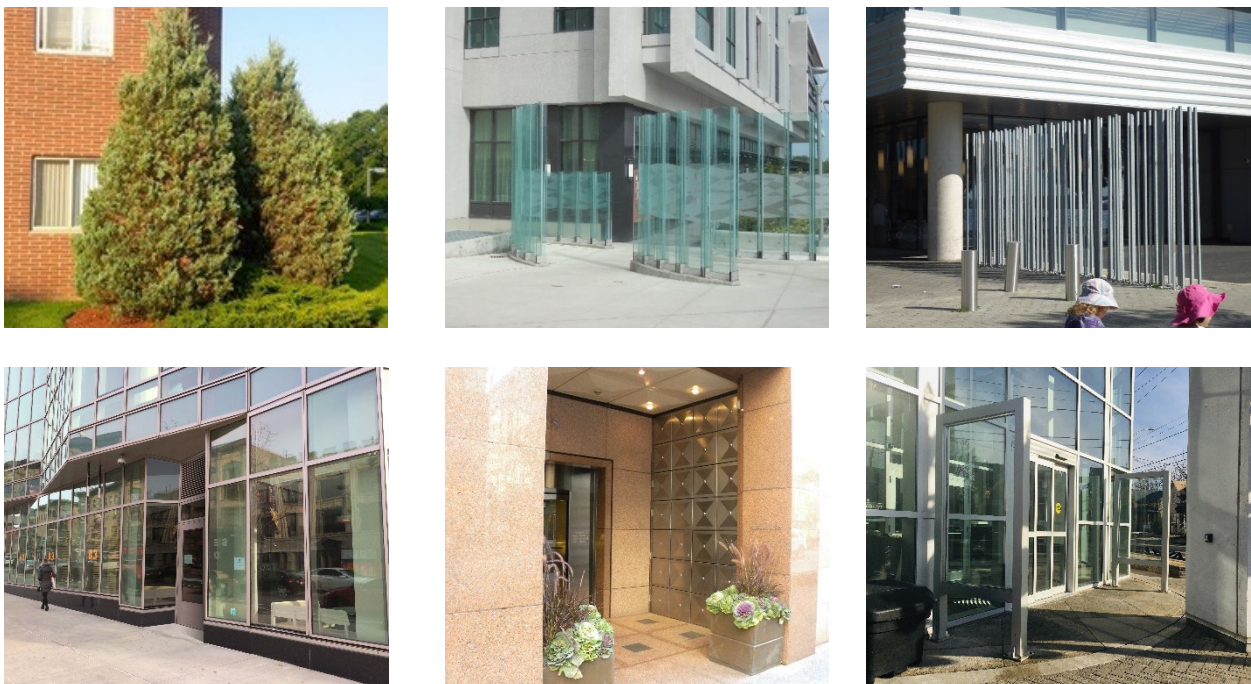


### 3.1.5 Future Configuration with Mitigation

The addition of wind control features to the proposed development in the future configuration is expected to result in reduced wind speeds, with conditions comfortable for standing at most areas assessed in the summer (Figure 1E). During the winter, wind speeds conducive to walking or calmer are expected at most areas assessed, with uncomfortable wind conditions expected to remain at two locations, one of which is on-site (Locations 82 and 117 in Figure 2E). Wind speeds conducive to walking are expected to remain unchanged near three building entrances of Buildings 1, 2, and 3 (Locations 1, 21, and 62 in Figure 2E).

The safety criterion is still expected to be exceeded at two off-site locations (Locations 76 and 118 in Figure 3E).

To further improve wind conditions near the southwest corner of Building 3, potential wind control measures may include vertical wind screens and landscaping or street art at building corner. Recessing the entrances behind the façade to create a sheltered doorway or installing local vertical wind screens/coniferous plantings on both sides of the doors can also be considered to achieve reduced wind speeds at the entrances. Examples of the use of such features are shown in Image 6. Note that for vertical wind control elements to be effective, a minimum height of 2 m and a maximum porosity of 20-30% is required. Thus, landscaping features will be beneficial when they are in full foliage. To extend the wind benefits of landscaping to colder months of the year, coniferous/marcescent species should be considered.



**Image 6: Examples of Wind Control Features at Grade Level**

Opportunities to provide contextually appropriate mitigation measures will be further reviewed during the detailed design stage.

## 3.2 Above-Grade Amenity Levels (Locations 131 through 155)

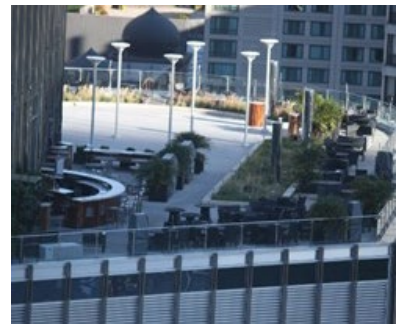
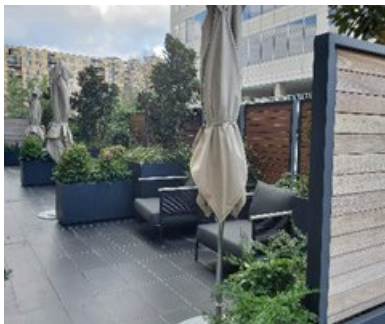
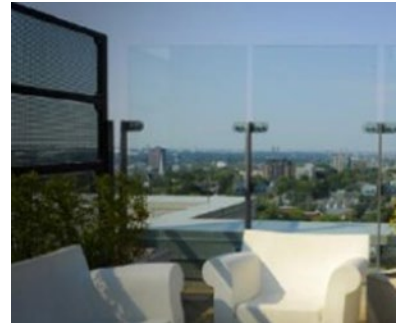
It is generally desirable for wind conditions on areas intended for passive activities to be comfortable for sitting more than 80% of the time in the summer. During the winter, the area would not be used frequently, and increased wind activity would be considered appropriate.

Wind speeds were assessed for the outdoor amenity spaces at Level 5 of Buildings 1 and 2, and at Level 7 of Buildings 3 and 4. Wind conditions comfortable for standing or walking are predicted at most locations in the summer (Figures 1B). In the winter, uncomfortable wind conditions are predicted at localized areas on the amenity spaces (Figure 2B), which may not be of concern if the amenity spaces will be closed during the cold season. Wind speeds that exceed the safety criterion are predicted at a few locations throughout above-grade amenity levels (Locations 139, 142, 143, 148, and 150 through 154 in Figure 3B and Table 1).

The addition of the wind screen along the north perimeter of the podium of Building 1 is not expected to change the wind conditions at above-grade areas. As such, similar wind conditions to those predicted in the Proposed configuration are expected at all the above-grade outdoor amenity spaces in the summer (Figure 1C). Wind speeds that exceed safety are expected at one less location compared to the Proposed Configuration (Locations 139, 142, 143, 148, 150, 151, 153, and 154 in Figure 3C and Table 1).

With the future developments in place, wind speeds at most above-grade outdoor amenity areas are reduced in the summer (with and without mitigations), but still wind speeds are higher than desired for passive uses (Figures 1D and 1E). The pedestrian wind safety criterion is expected to be met at all locations assessed, apart from three areas near Locations 134, 139, and 143 in Figure 3D and Table 1. The wind screen along the north perimeter of the podium of Building 1 is expected to improve the safety conditions at Location 134 (Figure 3E).

To improve wind conditions for the above-grade amenity levels, potential wind control measures may include increasing the height of the perimeter railings to a minimum of 2 m with a material that is no more than 20% porous, installing overhead trellises/canopies along the perimeter of the tower facades, and the use of landscaping features/screens interspersed on the terraces to reduce wind flow around the exterior amenities, where passive use is desired. Examples are shown in Image 7.



**Image 7: Examples of Wind Control Features for Above-Grade Amenity Levels**

Opportunities to provide contextually appropriate wind control measures will be further evaluated during the detailed design stage.



## 4 STATEMENT OF LIMITATIONS

### Limitations

This report was prepared by Rowan Williams Davies & Irwin, Inc. (“RWDI”) for Mattamy Homes (“Client”). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein (“Project”). The conclusions and recommendations contained in this report are based on the information available to RWDI when this report was prepared.

The conclusions and recommendations contained in this report have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report 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 report carefully review the stated assumptions contained herein and to understand the different factors which may impact the conclusions and recommendations provided.

### Design Assumptions

RWDI confirms that the pedestrian wind assessment (the “**Assessment**”) discussed herein was performed by RWDI in accordance with generally accepted professional standards at the time when the Assessment was performed and in the location of the Project. No other representations, warranties, or guarantees are made with respect to the accuracy or completeness of the information, findings, recommendations, or conclusions contained in this Report. This report is not a legal opinion regarding compliance with applicable laws.

The findings and recommendations set out in this report are based on the following information disclosed to RWDI. Drawings and information listed below were received from Diamond Schmitt Architects and used to construct the scale model of the proposed 3085 Hurontario Street (“**Project Data**”)

| File Name                        | File Type | Date Received (dd/mm/yyyy) |
|----------------------------------|-----------|----------------------------|
| 201016-ARCH-DSA-Bldg 1-R22       | Revit     | 24/07/2023                 |
| 201016-ARCH-DSA-Bldg 2-R22       | Revit     | 24/07/2023                 |
| 201016-ARCH-DSA-Bldg 3-R22       | Revit     | 24/07/2023                 |
| 201016-ARCH-DSA-Bldg 4-R22       | Revit     | 24/07/2023                 |
| 201016-ARCH-DSA-Bldg Parking-R22 | Revit     | 24/07/2023                 |
| 201016-ARCH-DSA-Site-R22         | Revit     | 24/07/2023                 |



| File Name  | File Type | Date Received (dd/mm/yyyy) |
|--|-----------|----------------------------|
| <b>A104 L1 Plan</b>  | PDF       | 26/07/2023                 |
| <b>Pages from 230719 Typical Plans</b>                       | PDF       | 26/07/2023                 |
| <b>201016 -Hurontario - 2023-08-16_Rezoning Resubmission</b> | PDF       | 17/08/2023                 |
| <b>W7_33_3154_Architectural_Drawings_June_2022</b>           | PDF       | 22/08/2023                 |
| <b>W7_3115_Architectural_Package- October_2022</b>           | PDF       | 22/08/2023                 |

The recommendations and conclusions are based on the assumption that the Project Data and Climate Data are accurate and complete. RWDI assumes no responsibility for any inaccuracy or deficiency in information it has received from others. In addition, the recommendations and conclusions in this report are partially based on historical data and can be affected by a number of external factors, including but not limited to Project design, quality of materials and construction, site conditions, meteorological events, and climate change. As such, the conclusions and recommendations contained in this report do not list every possible outcome.

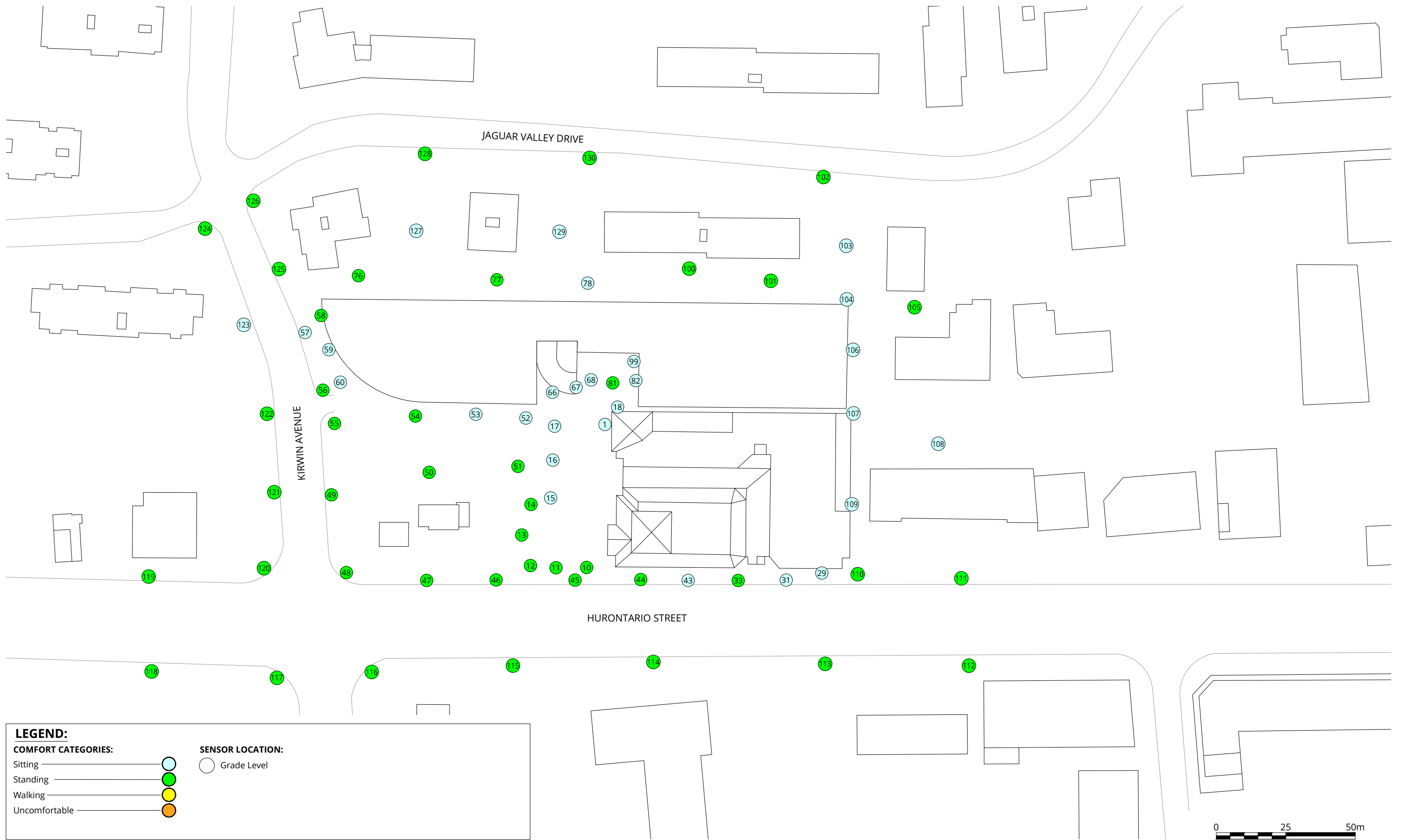
The opinions in this report can only be relied upon to the extent that the Project Data and Project Specific Conditions have not changed. Any change in the Project Data or Project Specific Conditions not reflected in this report can impact and/or alter the recommendations and conclusions in this report. Therefore, it is incumbent upon the Client and/or any other third party reviewing the recommendations and conclusions in this report to contact RWDI in the event of any change in the Project Data and Project Specific Conditions in order to determine whether any such change(s) may impact the assumptions upon which the recommendations and conclusions were made.

## 5 REFERENCES

1. ASCE Task Committee on Outdoor Human Comfort (2004). *Outdoor Human Comfort and Its Assessment*, 68 pages, American Society of Civil Engineers, Reston, Virginia, USA.
2. Williams, C.J., Hunter, M.A. and Waechter, W.F. (1990). "Criteria for Assessing the Pedestrian Wind Environment," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.36, pp.811-815.
3. Williams, C.J., Soligo M.J. and Cote, J. (1992). "A Discussion of the Components for a Comprehensive Pedestrian Level Comfort Criteria," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.41-44, pp.2389-2390.
4. Soligo, M.J., Irwin, P.A., and Williams, C.J. (1993). "Pedestrian Comfort Including Wind and Thermal Effects," *Third Asia-Pacific Symposium on Wind Engineering*, Hong Kong.
5. Soligo, M.J., Irwin, P.A., Williams, C.J. and Schuyler, G.D. (1998). "A Comprehensive Assessment of Pedestrian Comfort Including Thermal Effects," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.77&78, pp.753-766.
6. Williams, C.J., Wu, H., Waechter, W.F. and Baker, H.A. (1999). "Experiences with Remedial Solutions to Control Pedestrian Wind Problems," *Tenth International Conference on Wind Engineering*, Copenhagen, Denmark.
7. Lawson, T.V. (1973). "Wind Environment of Buildings: A Logical Approach to the Establishment of Criteria", *Report No. TVL 7321*, Department of Aeronautic Engineering, University of Bristol, Bristol, England.
8. Durgin, F. H. (1997). "Pedestrian Level Wind Criteria Using the Equivalent average", *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 66, pp.215-226.
9. Wu, H. and Kriksic, F. (2012). "Designing for Pedestrian Comfort in Response to Local Climate", *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.104-106, pp.397-407.
10. Wu, H., Williams, C.J., Baker, H.A. and Waechter, W.F. (2004), "Knowledge-based Desk-Top Analysis of Pedestrian Wind Conditions", *ASCE Structure Congress 2004*, Nashville, Tennessee.

A large decorative graphic on the left side of the page. It features a blue triangular shape at the top left, a white curved line separating it from a large grey curved shape that fills the rest of the left half of the page. The word 'FIGURES' is centered in the grey area.

# FIGURES



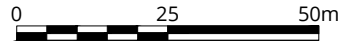
**LEGEND:**

**COMFORT CATEGORIES:**


- Sitting ———— (light blue circle)
- Standing ———— (green circle)
- Walking ———— (yellow circle)
- Uncomfortable ———— (orange circle)

**SENSOR LOCATION:**

- (white circle outline) Grade Level

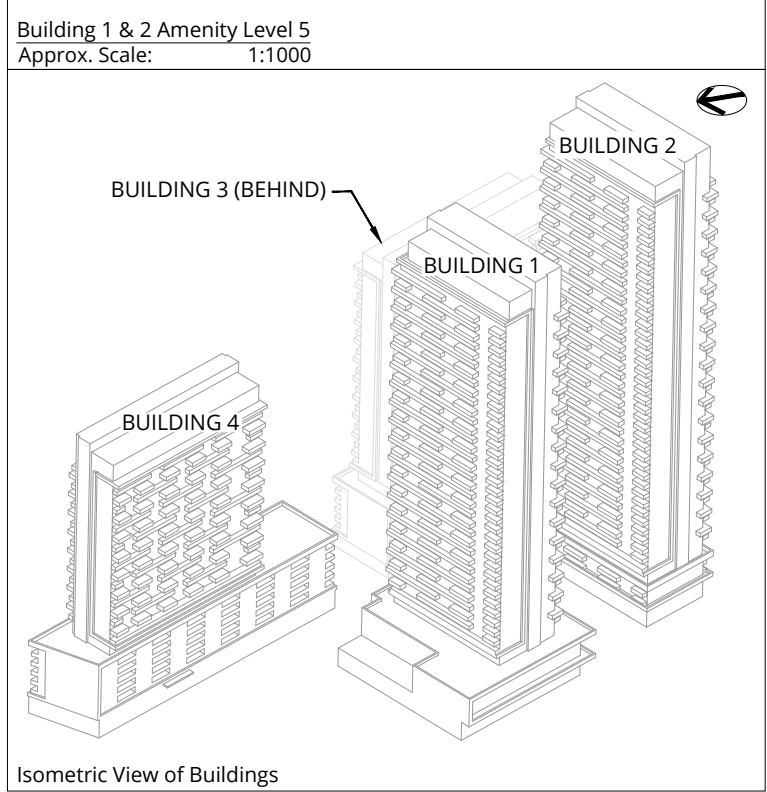
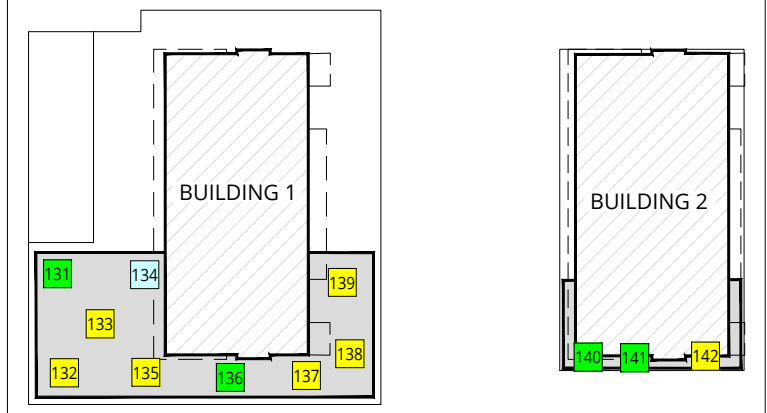
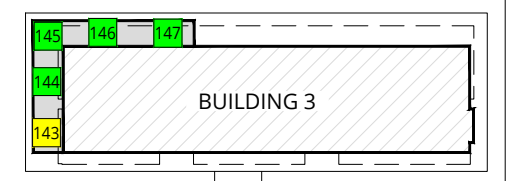
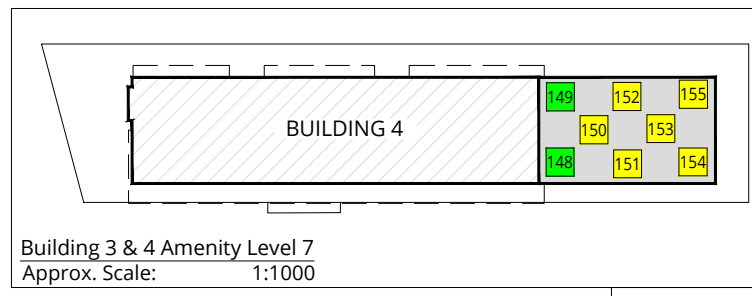


**Pedestrian Wind Comfort Conditions**  
 Existing Configuration  
 Summer (May to October, 6:00 to 23:00)  
 3085 Hurontario Street - Mississauga, ON

True North  
  
 Drawn by: GRE Figure: 1A  
 Approx. Scale: 1:1250  
 Date Revised: Sep. 5, 2023  
 Project #2300365







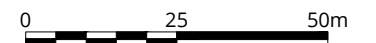
**LEGEND:**

**COMFORT CATEGORIES:**

- Sitting ●
- Standing ●
- Walking ●
- Uncomfortable ●

**SENSOR LOCATION:**

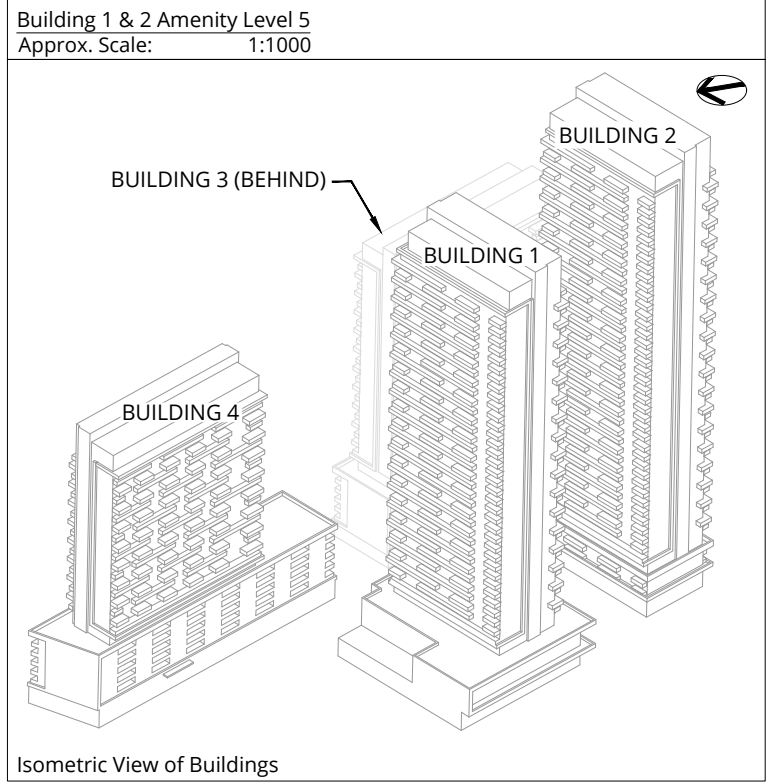
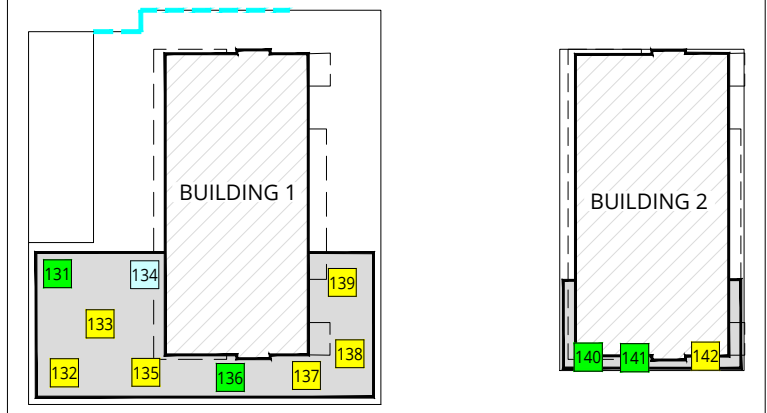
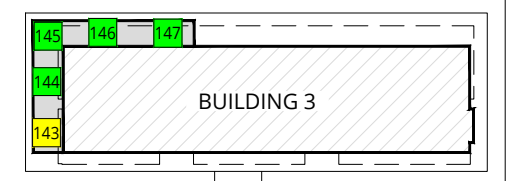
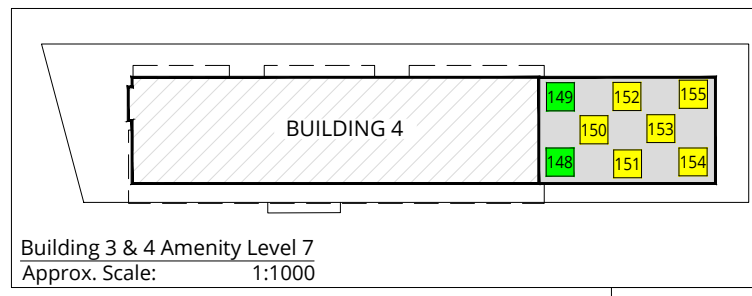
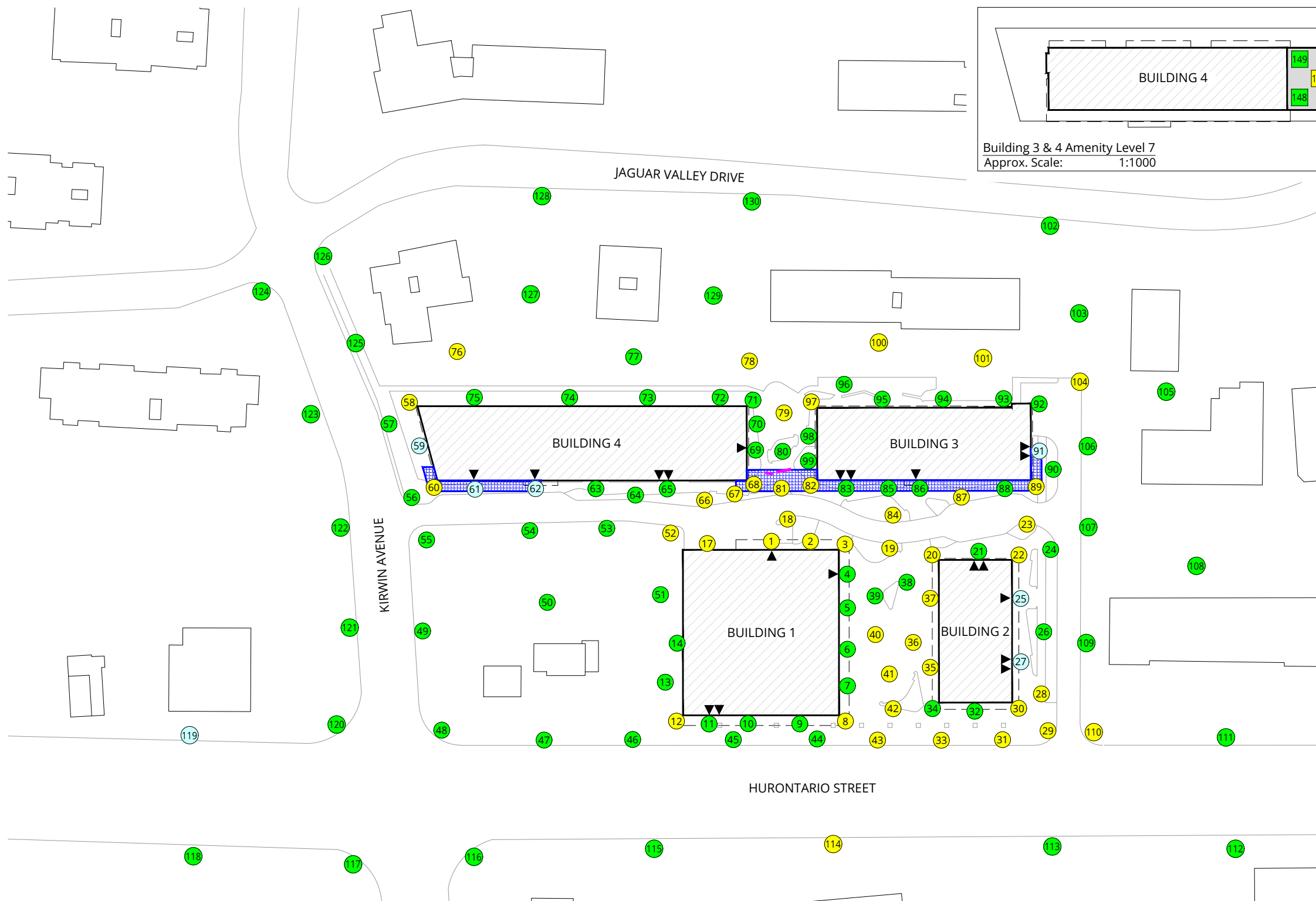
- Grade Level
- Amenity Levels
- Building Above Removed for Clarity
- ▶ Main Entrance Location



**Pedestrian Wind Comfort Conditions**  
 Proposed Configuration  
 Summer (May to October, 6:00 to 23:00)  
 3085 Hurontario Street - Mississauga, ON

True North   
 Drawn by: GRE Figure: 1B  
 Approx. Scale: 1:1250  
 Date Revised: Sep. 5, 2023  
 Project #2300365





**LEGEND:**

**COMFORT CATEGORIES:**

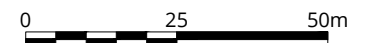
- Sitting (Light Blue Circle)
- Standing (Green Circle)
- Walking (Yellow Circle)
- Uncomfortable (Orange Circle)

**SENSOR LOCATION:**

- Grade Level (White Circle)
- Amenity Levels (White Square)
- Building Above Removed for Clarity (Hatched Square)
- Main Entrance Location (Black Arrow)

**MITIGATION:**

- 30% Porous Canopy (4m Tall, 3-4 Depth) (Blue Grid)
- 30% Porous Guardrail (3m High including Parapet) (Dashed Blue Line)
- 20-30% Porous Screen (2m High, 2 and 4m Widths) (Pink Line)



**Pedestrian Wind Comfort Conditions**  
 Proposed with Mitigation Configuration  
 Summer (May to October, 6:00 to 23:00)  
 3085 Hurontario Street - Mississauga, ON

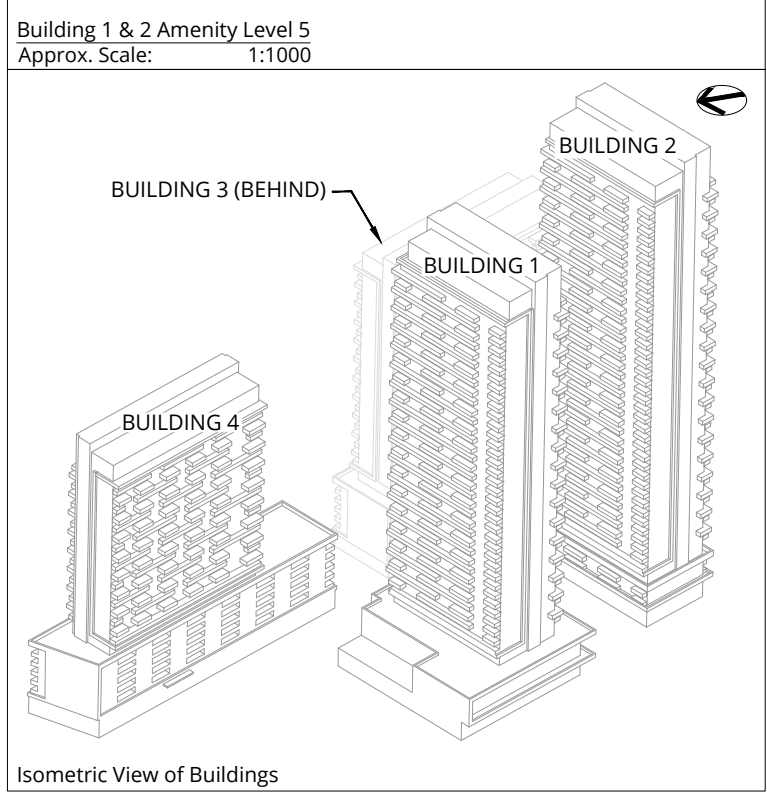
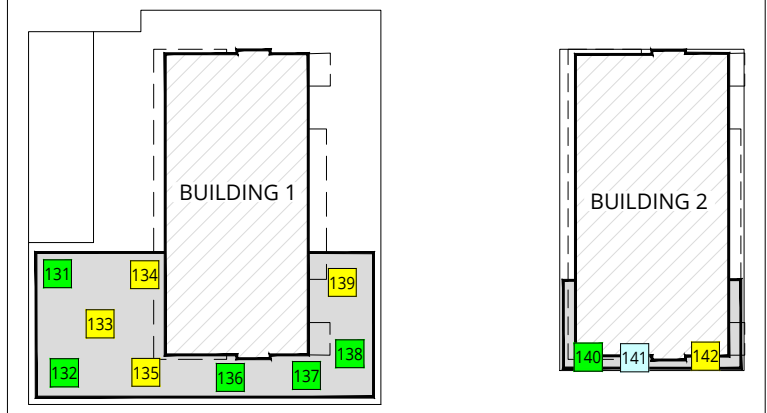
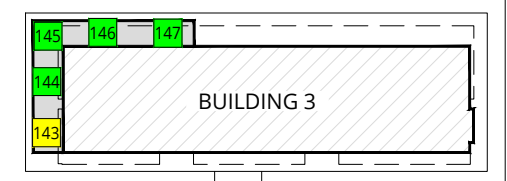
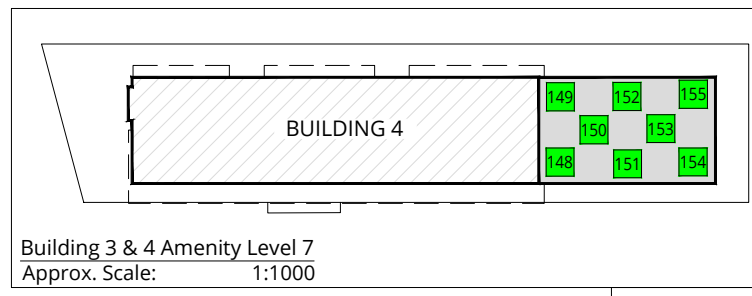
True North

Drawn by: GRE Figure: 1C

Approx. Scale: 1:1250

Date Revised: Sep. 5, 2023

Project #2300365



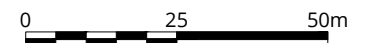
**LEGEND:**

**COMFORT CATEGORIES:**

- Sitting ●
- Standing ●
- Walking ●
- Uncomfortable ●

**SENSOR LOCATION:**

- Grade Level
- Amenity Levels
- Building Above Removed for Clarity
- ▶ Main Entrance Location

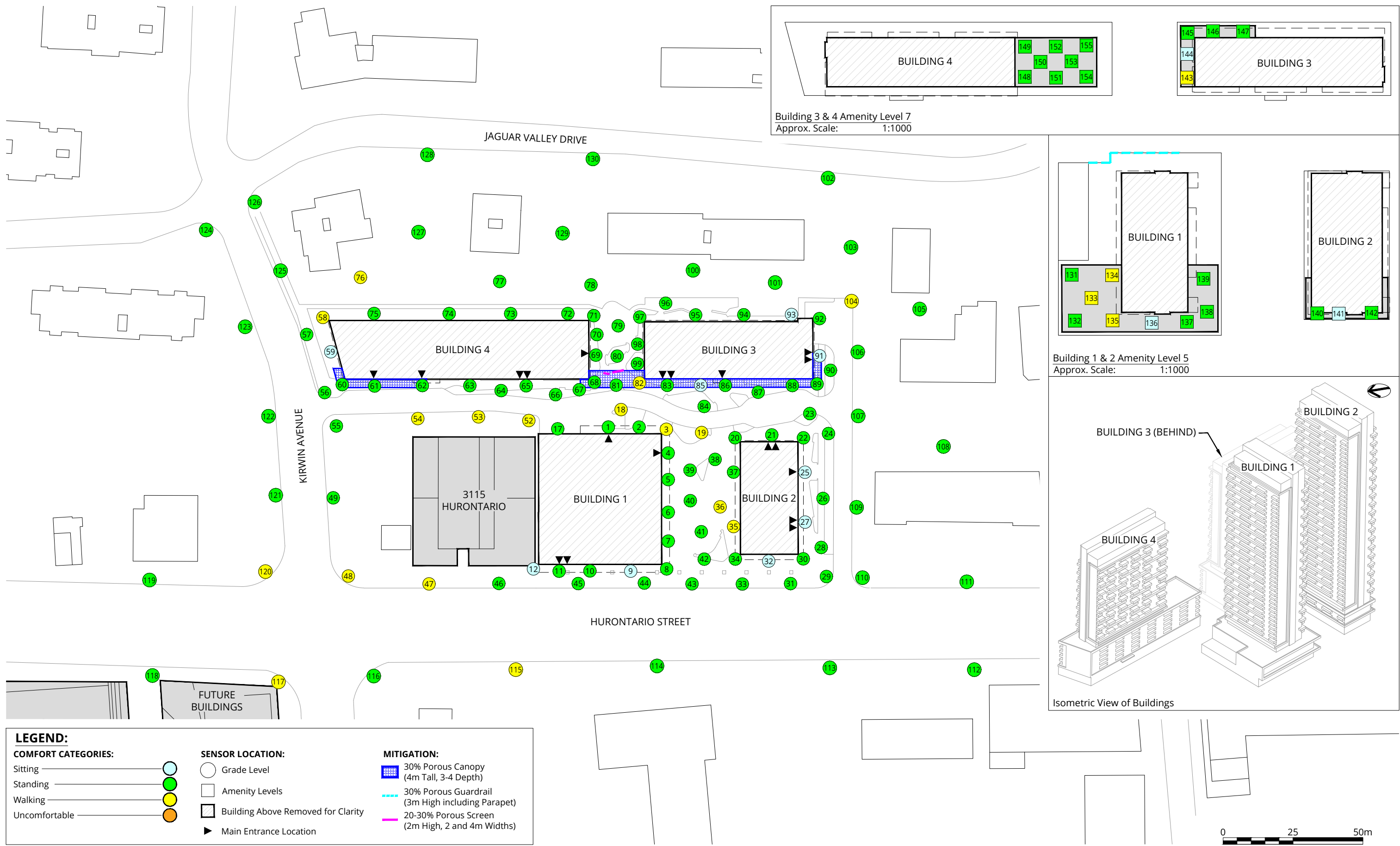


**Pedestrian Wind Comfort Conditions**  
 Future Configuration  
 Summer (May to October, 6:00 to 23:00)  
 3085 Hurontario Street - Mississauga, ON

True North

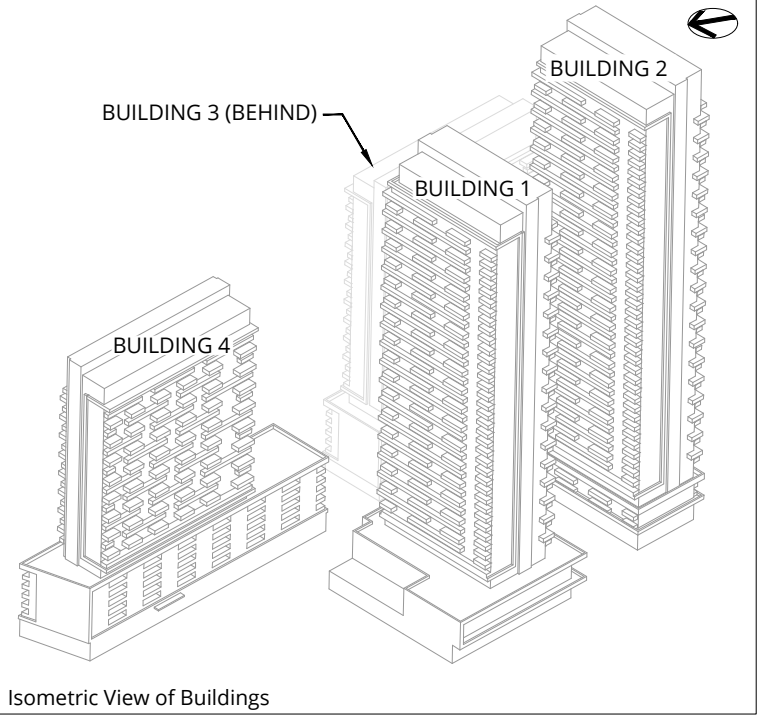
Drawn by: GRE Figure: 1D  
 Approx. Scale: 1:1250  
 Date Revised: Sep. 5, 2023





Building 3 & 4 Amenity Level 7  
Approx. Scale: 1:1000

Building 1 & 2 Amenity Level 5  
Approx. Scale: 1:1000



**LEGEND:**

**COMFORT CATEGORIES:**

- Sitting (Light Blue Circle)
- Standing (Green Circle)
- Walking (Yellow Circle)
- Uncomfortable (Orange Circle)

**SENSOR LOCATION:**

- Grade Level (White Circle)
- Amenity Levels (White Square)
- Building Above Removed for Clarity (Grey Square)
- Main Entrance Location (Black Arrow)

**MITIGATION:**

- 30% Porous Canopy (4m Tall, 3-4 Depth) (Blue Grid)
- 30% Porous Guardrail (3m High including Parapet) (Dashed Blue Line)
- 20-30% Porous Screen (2m High, 2 and 4m Widths) (Pink Line)



**Pedestrian Wind Comfort Conditions**  
Future with Mitigation Configuration  
Summer (May to October, 6:00 to 23:00)

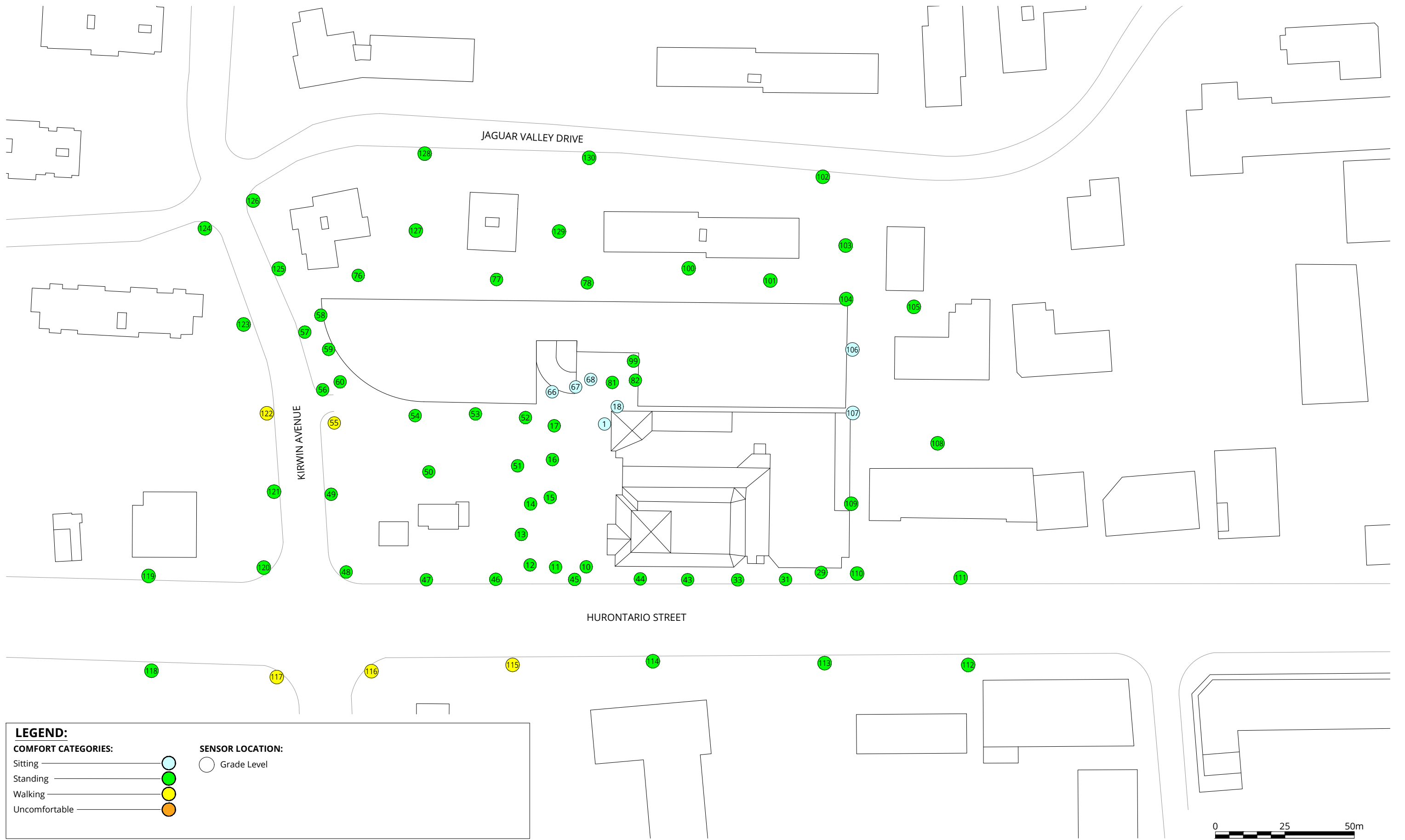
3085 Hurontario Street - Mississauga, ON



Drawn by: GRE Figure: 1E  
Approx. Scale: 1:1250  
Date Revised: Sep. 5, 2023



Project #2300365



**LEGEND:**

**COMFORT CATEGORIES:**

- Sitting ●
- Standing ●
- Walking ●
- Uncomfortable ●

**SENSOR LOCATION:**

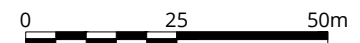
- Grade Level

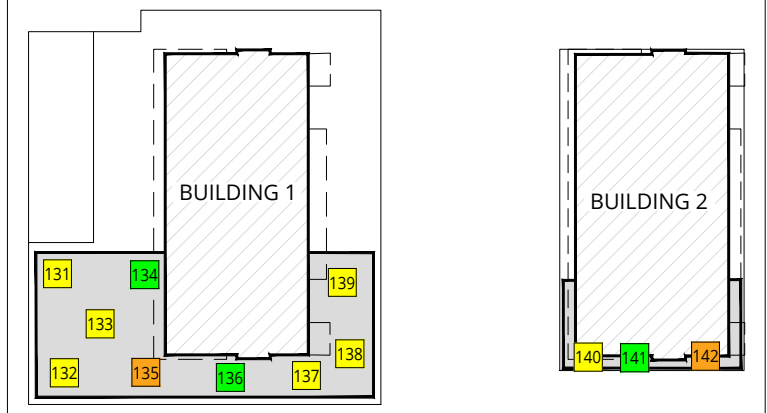
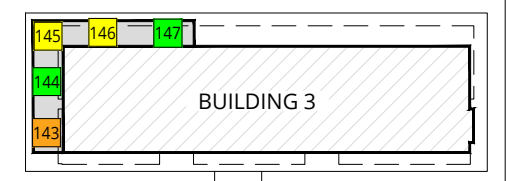
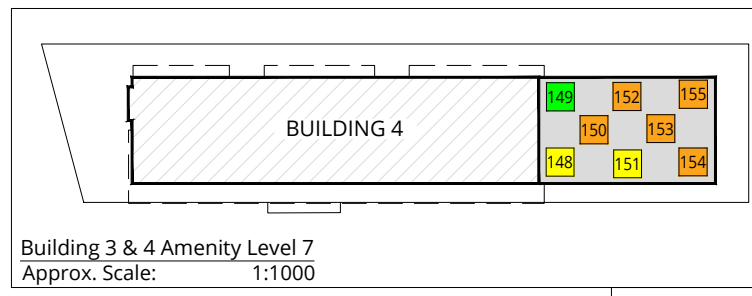
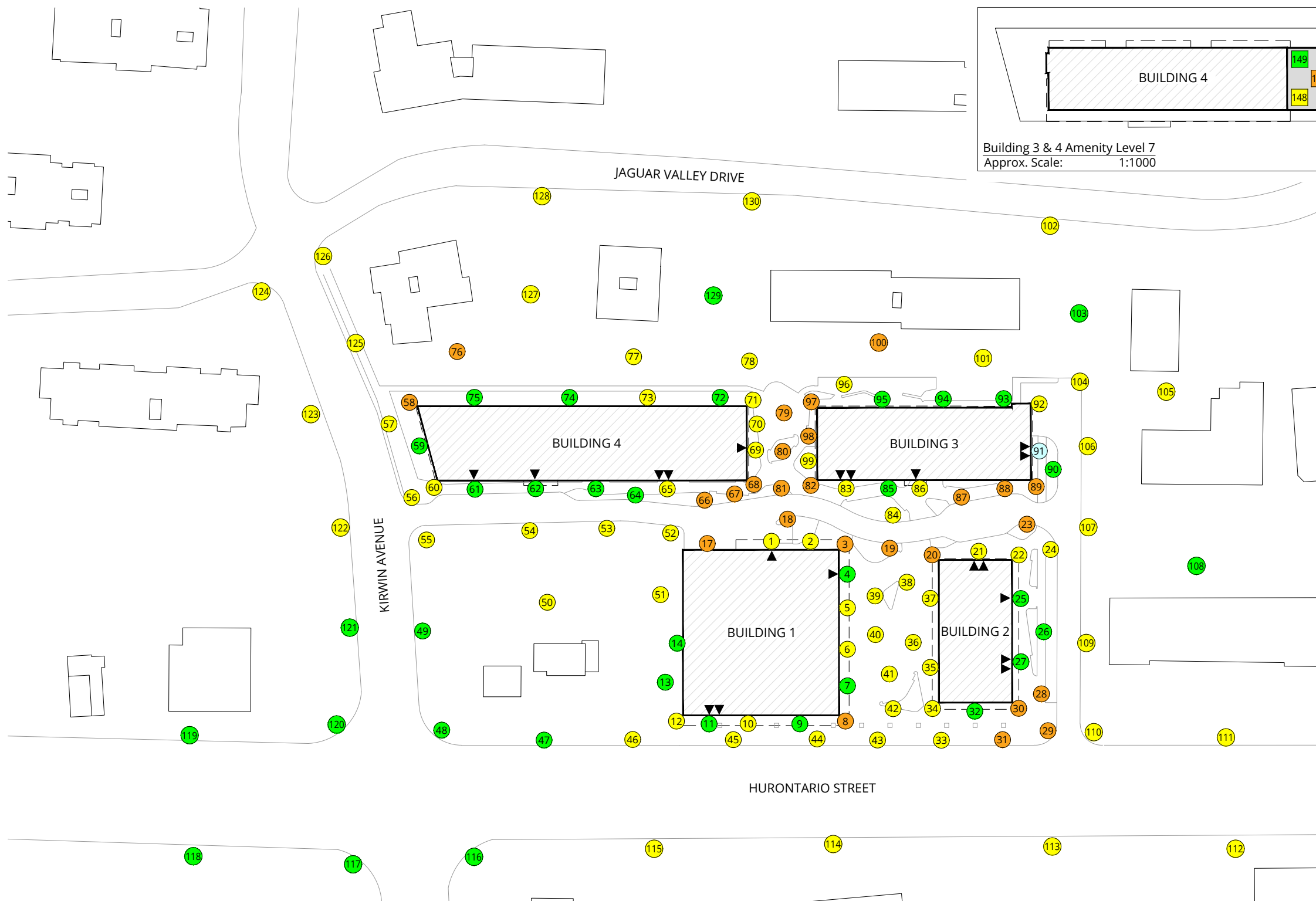
**Pedestrian Wind Comfort Conditions**  
 Existing Configuration  
 Winter (November to April, 6:00 to 23:00)  
 3085 Hurontario Street - Mississauga, ON

True North

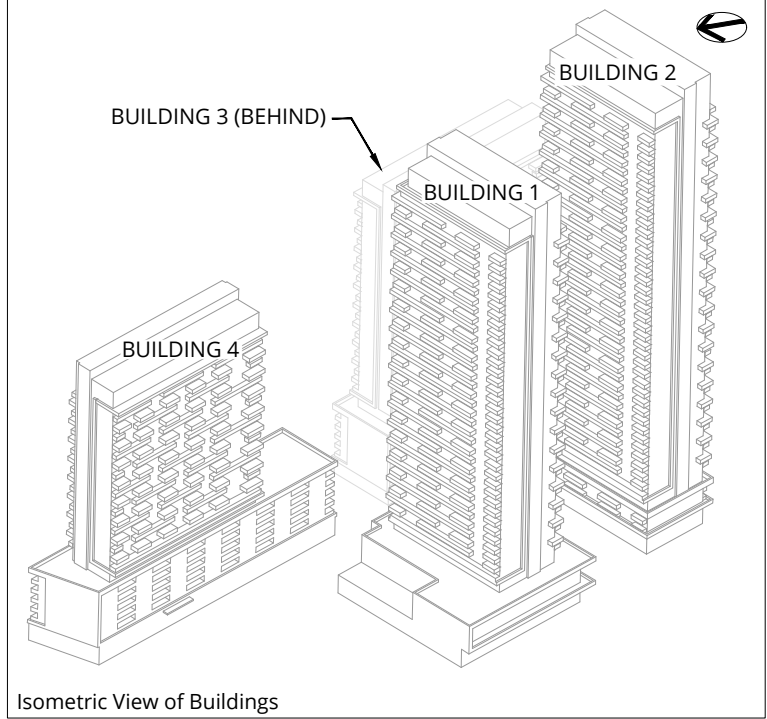
|                            |            |
|----------------------------|------------|
| Drawn by: GRE              | Figure: 2A |
| Approx. Scale: 1:1250      |            |
| Date Revised: Sep. 5, 2023 |            |

Project #2300365





Building 1 & 2 Amenity Level 5  
Approx. Scale: 1:1000



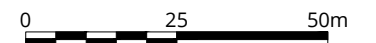
**LEGEND:**

**COMFORT CATEGORIES:**

- Sitting ●
- Standing ●
- Walking ●
- Uncomfortable ●

**SENSOR LOCATION:**

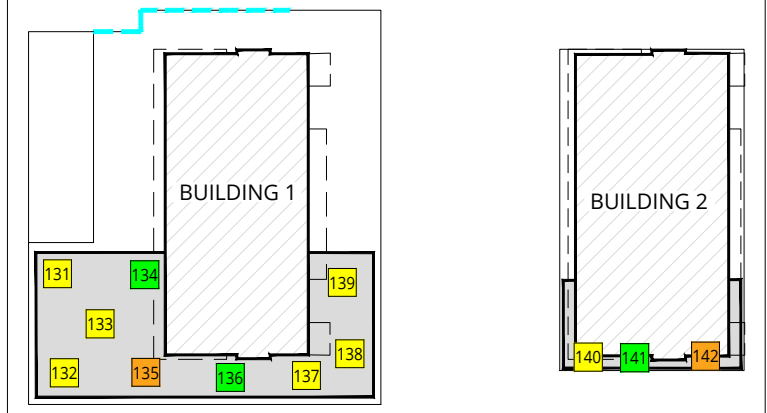
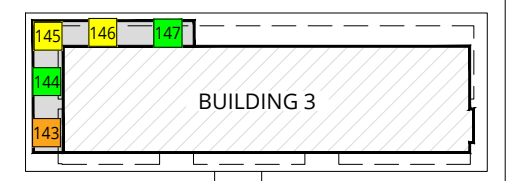
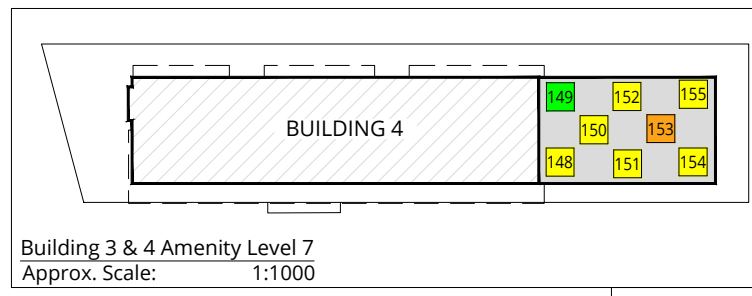
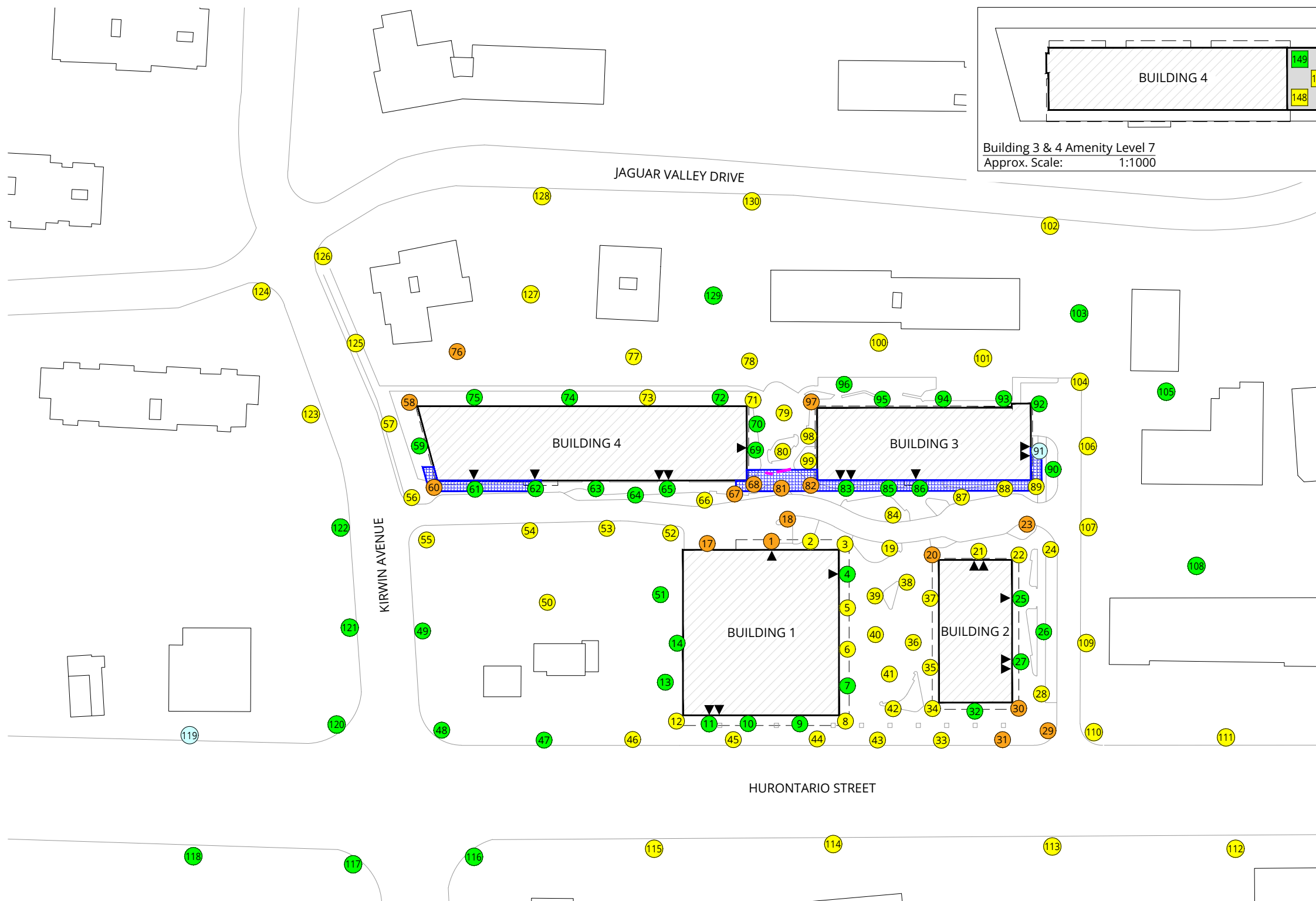
- Grade Level
- Amenity Levels
- Building Above Removed for Clarity
- ▶ Main Entrance Location



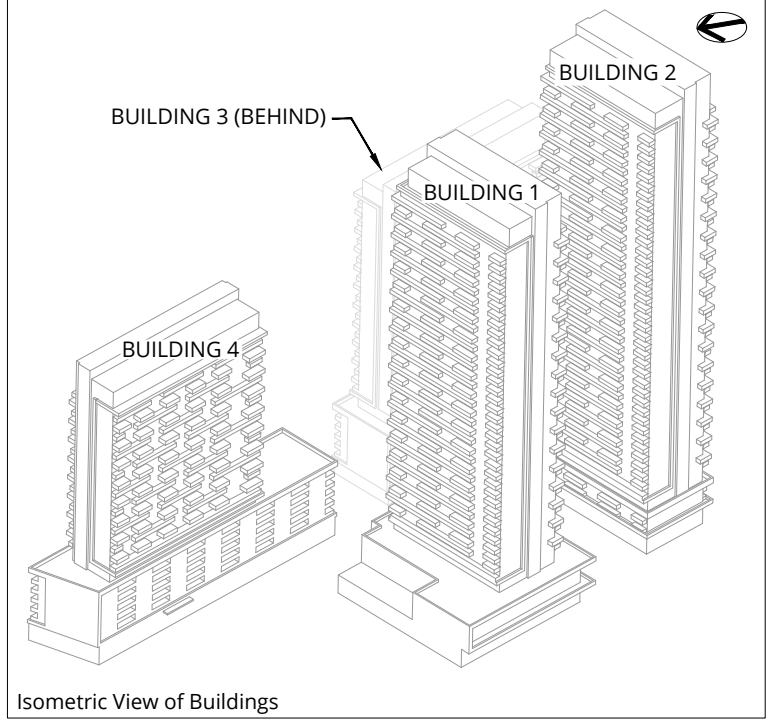
**Pedestrian Wind Comfort Conditions**  
Proposed Configuration  
Winter (November to April, 6:00 to 23:00)  
3085 Hurontario Street - Mississauga, ON

True North   
 Drawn by: GRE Figure: 2B  
 Approx. Scale: 1:1250  
 Date Revised: Sep. 5, 2023





Building 1 & 2 Amenity Level 5  
Approx. Scale: 1:1000



Isometric View of Buildings

**LEGEND:**

**COMFORT CATEGORIES:**

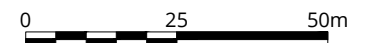
- Sitting (Light Blue Circle)
- Standing (Green Circle)
- Walking (Yellow Circle)
- Uncomfortable (Orange Circle)

**SENSOR LOCATION:**

- Grade Level (White Circle)
- Amenity Levels (White Square)
- Building Above Removed for Clarity (Hatched Square)
- Main Entrance Location (Black Arrow)

**MITIGATION:**

- 30% Porous Canopy (4m Tall, 3-4 Depth) (Blue Grid Pattern)
- 30% Porous Guardrail (3m High including Parapet) (Dashed Blue Line)
- 20-30% Porous Screen (2m High, 2 and 4m Widths) (Pink Dashed Line)



**Pedestrian Wind Comfort Conditions**  
Proposed with Mitigation Configuration  
Winter (November to April, 6:00 to 23:00)  
3085 Hurontario Street - Mississauga, ON

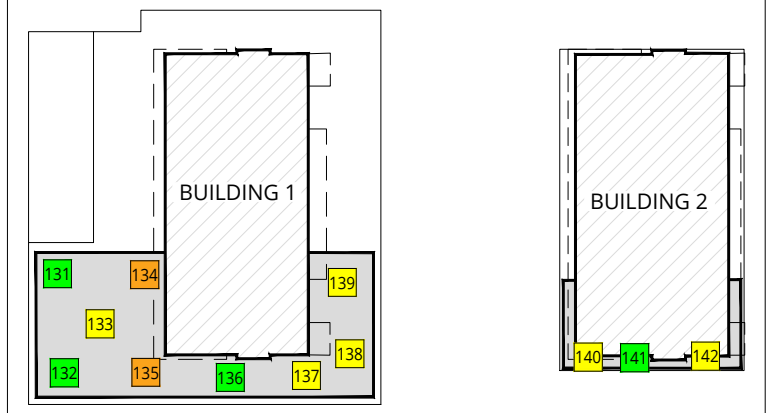
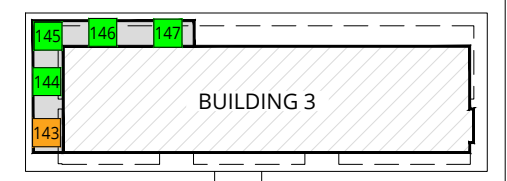
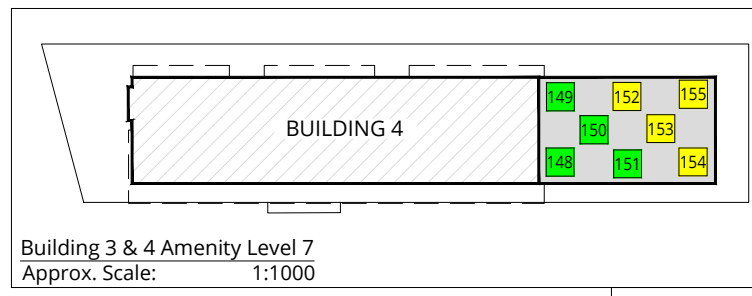
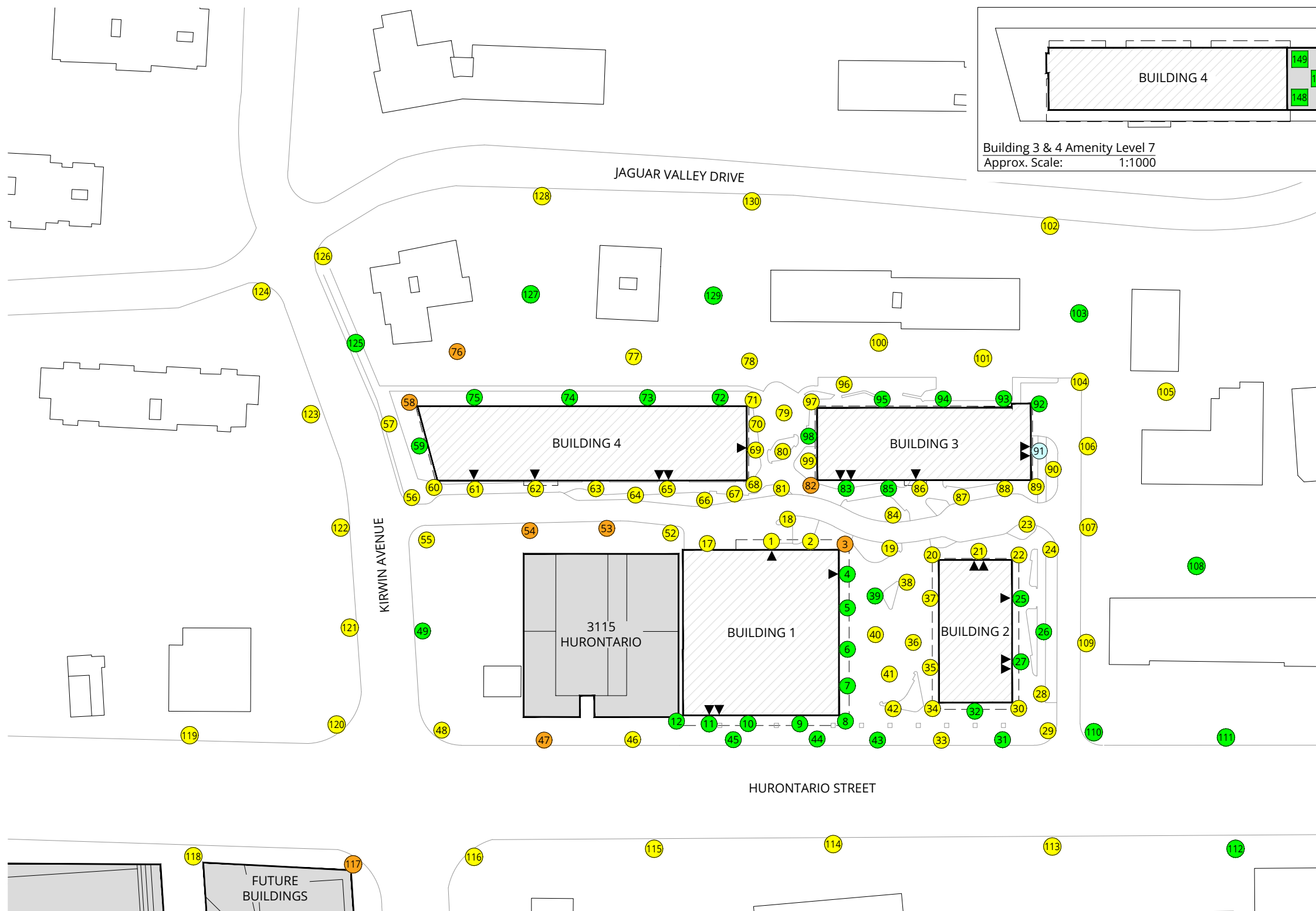
True North

Drawn by: GRE Figure: 2C

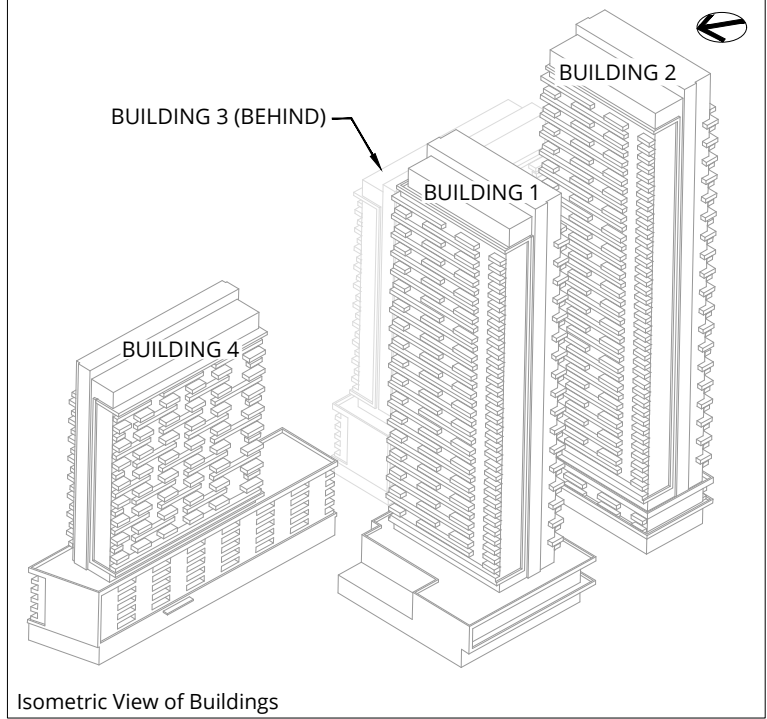
Approx. Scale: 1:1250

Date Revised: Sep. 5, 2023

Project #2300365



Building 1 & 2 Amenity Level 5  
Approx. Scale: 1:1000



Isometric View of Buildings

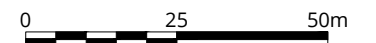
**LEGEND:**

**COMFORT CATEGORIES:**

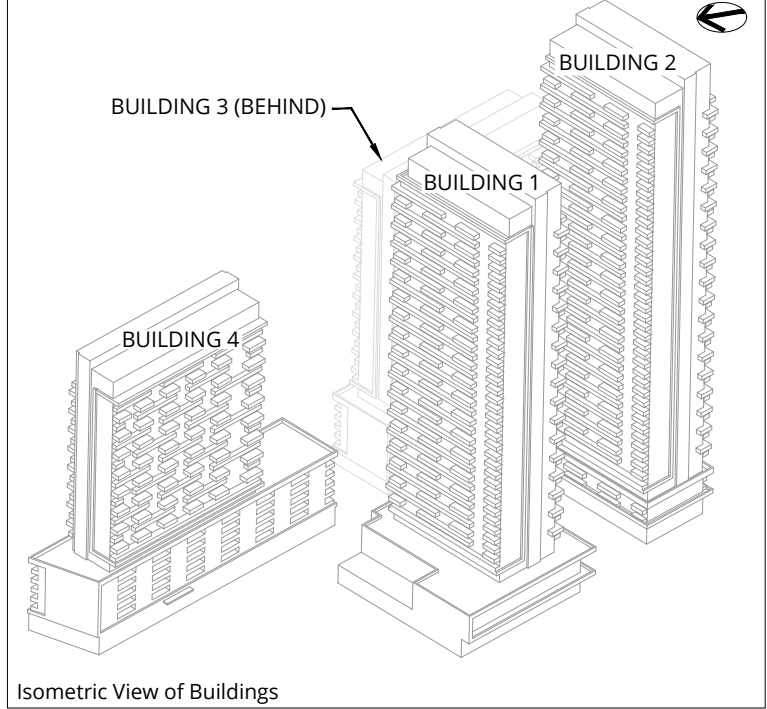
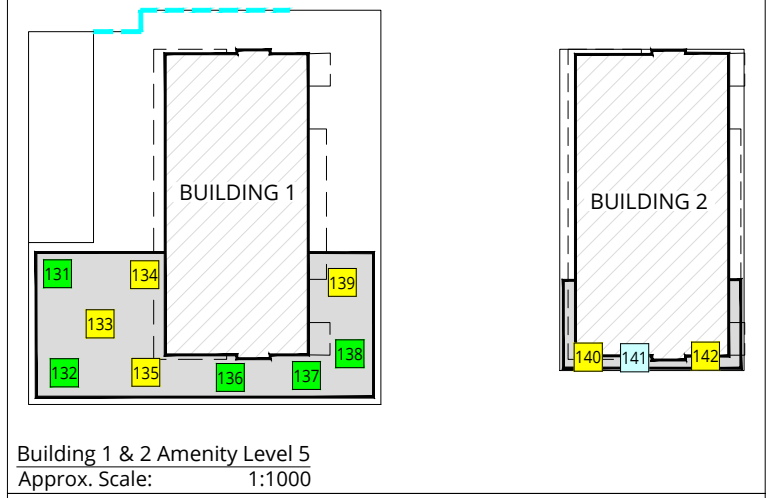
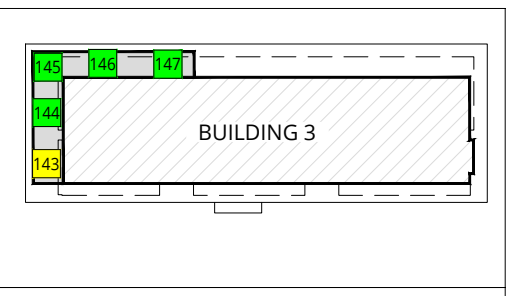
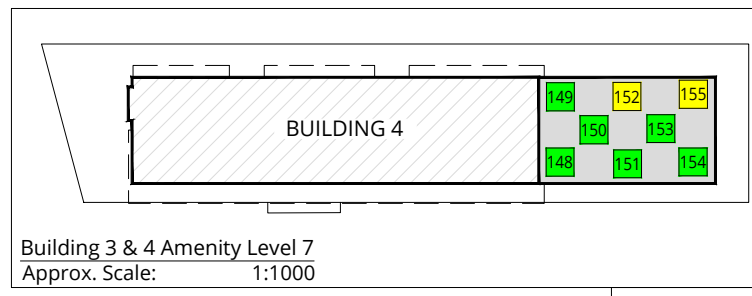
- Sitting — ●
- Standing — ●
- Walking — ●
- Uncomfortable — ●

**SENSOR LOCATION:**

- Grade Level
- Amenity Levels
- Building Above Removed for Clarity
- ▶ Main Entrance Location







**LEGEND:**

**COMFORT CATEGORIES:**

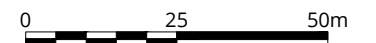
- Sitting (Light Blue Circle)
- Standing (Green Circle)
- Walking (Yellow Circle)
- Uncomfortable (Orange Circle)

**SENSOR LOCATION:**

- Grade Level (White Circle)
- Amenity Levels (White Square)
- Building Above Removed for Clarity (Hatched Square)
- Main Entrance Location (Black Arrow)

**MITIGATION:**

- 30% Porous Canopy (4m Tall, 3-4 Depth) (Blue Hatched Area)
- 30% Porous Guardrail (3m High including Parapet) (Dashed Line)
- 20-30% Porous Screen (2m High, 2 and 4m Widths) (Pink Hatched Area)

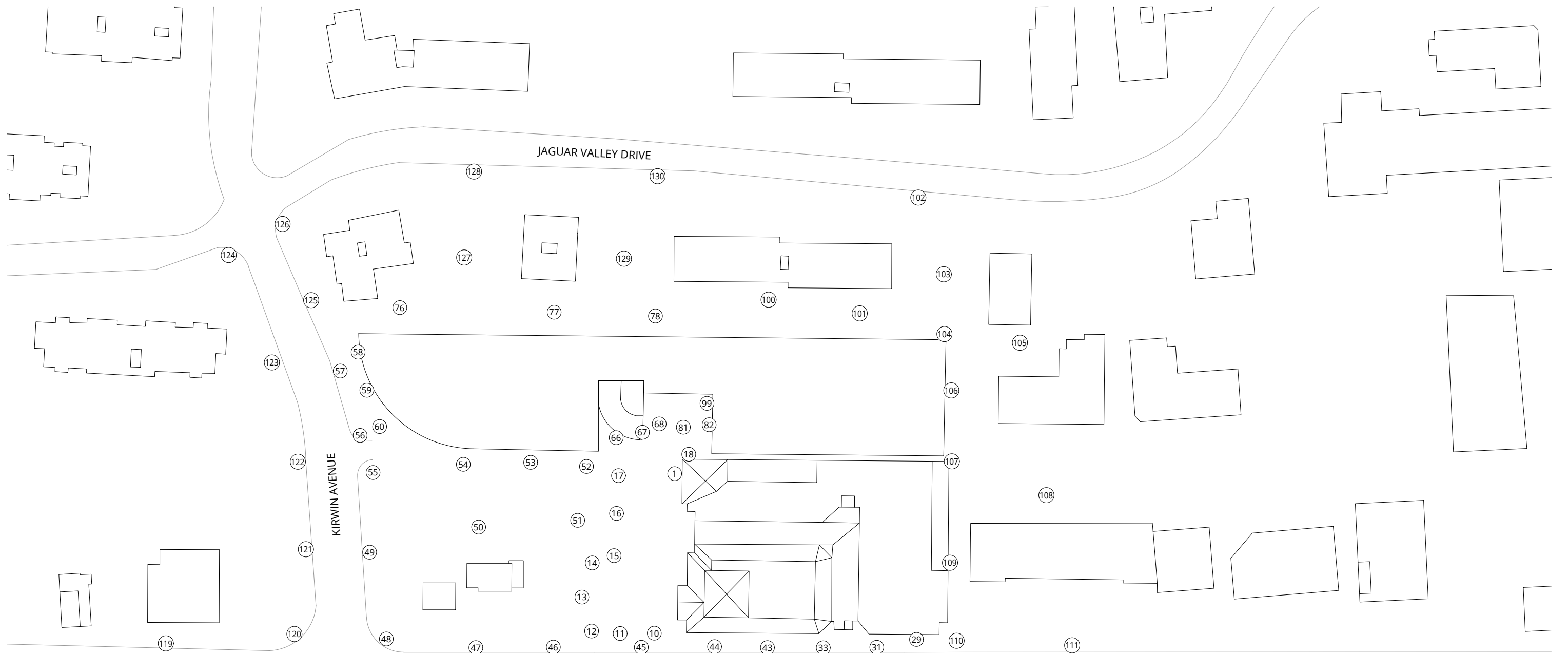


**Pedestrian Wind Comfort Conditions**  
 Future with Mitigation Configuration  
 Winter (November to April, 6:00 to 23:00)  
 3085 Hurontario Street - Mississauga, ON

True North

Drawn by: GRE Figure: 2E  
 Approx. Scale: 1:1250  
 Date Revised: Sep. 5, 2023

Project #2300365



HURONTARIO STREET

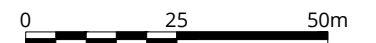
**LEGEND:**

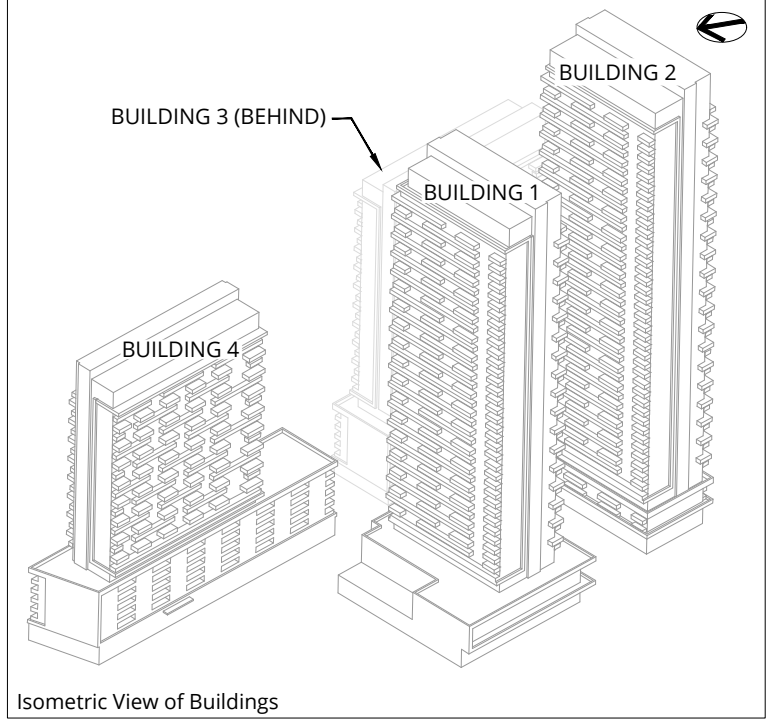
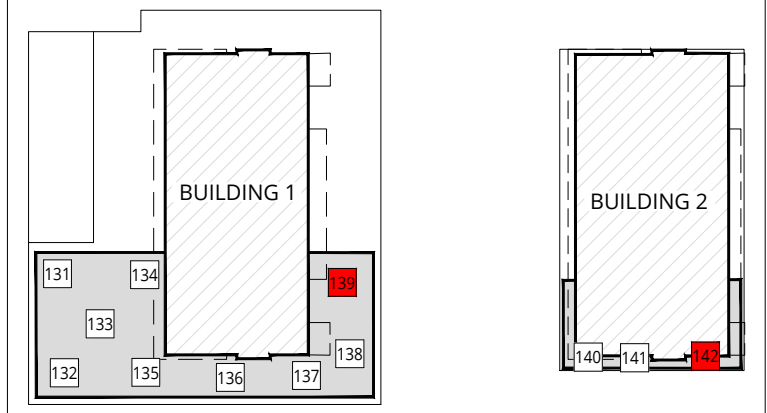
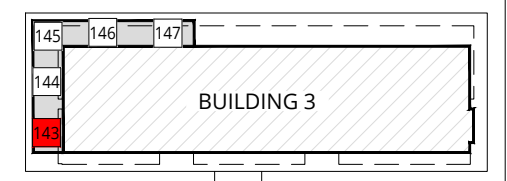
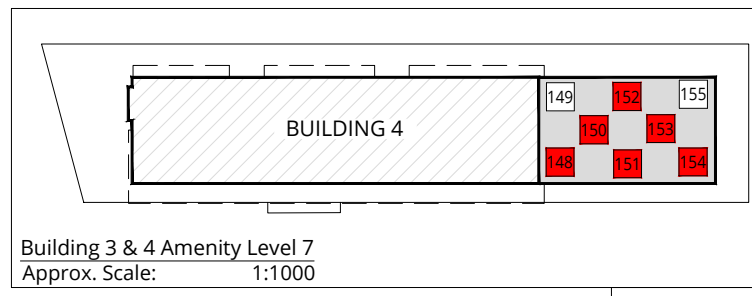
**SAFETY CATEGORIES:**

- Acceptable
- Exceeded

**SENSOR LOCATION:**

- Grade Level





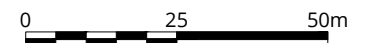
**LEGEND:**

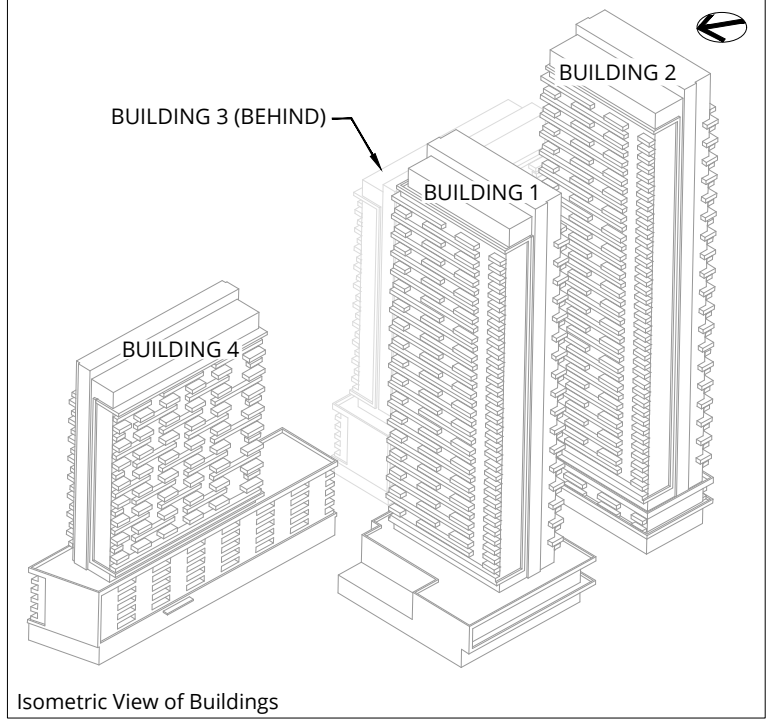
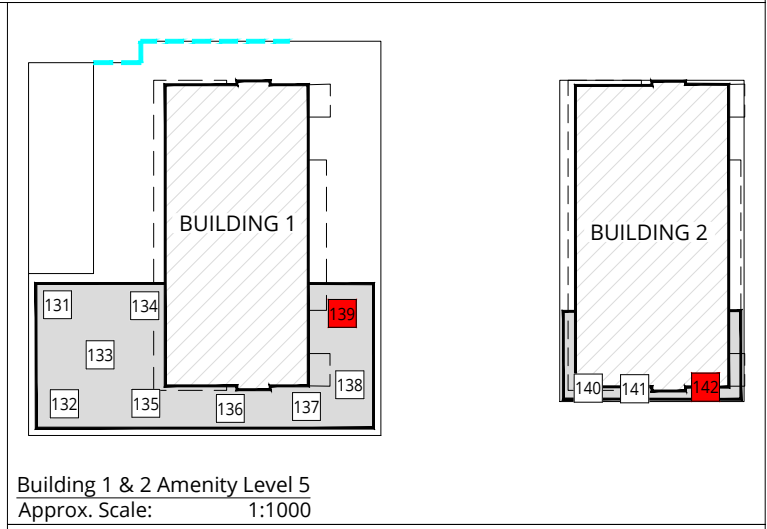
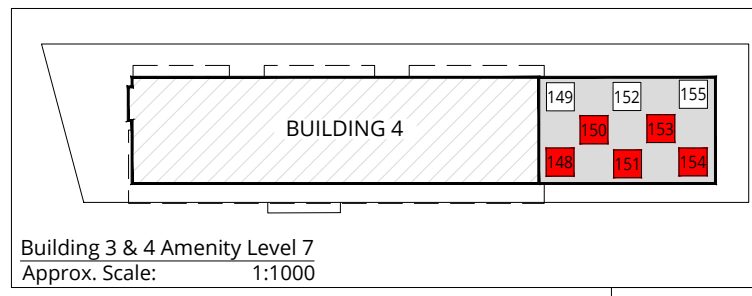
**SAFETY CATEGORIES:**

- Acceptable (white circle)
- Exceeded (red circle)

**SENSOR LOCATION:**

- Grade Level (white circle)
- Amenity Levels (square with diagonal lines)
- Building Above Removed for Clarity (square with diagonal lines)
- Main Entrance Location (black triangle)





**LEGEND:**

**SAFETY CATEGORIES:**

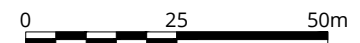
- Acceptable (white circle)
- Exceeded (red circle)

**SENSOR LOCATION:**

- Grade Level (white circle)
- Amenity Levels (grey square)
- Building Above Removed for Clarity (hatched square)
- Main Entrance Location (black triangle)

**MITIGATION:**

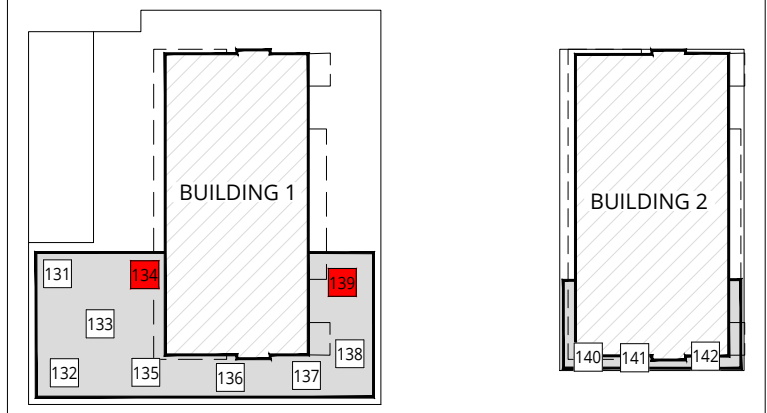
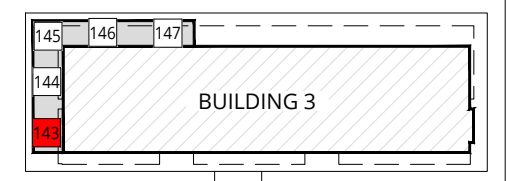
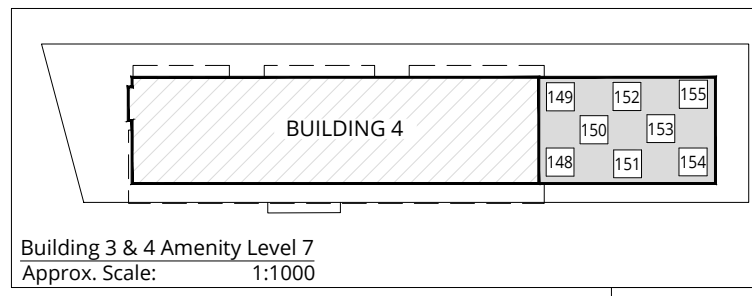
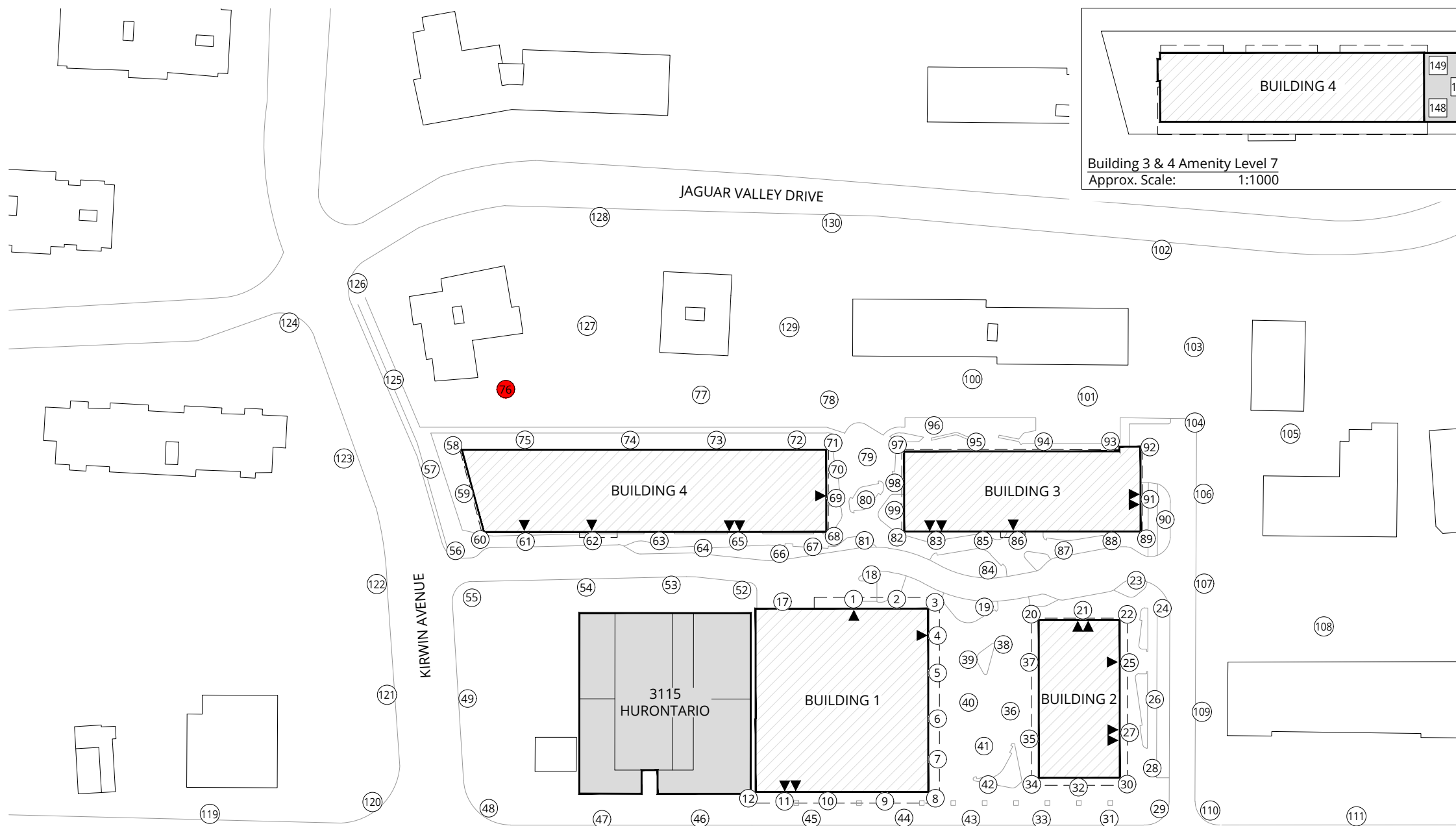
- 30% Porous Canopy (4m Tall, 3-4 Depth) (blue grid)
- 30% Porous Guardrail (3m High including Parapet) (cyan dashed line)
- 20-30% Porous Screen (2m High, 2 and 4m Widths) (magenta dashed line)



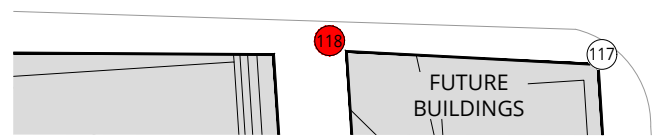
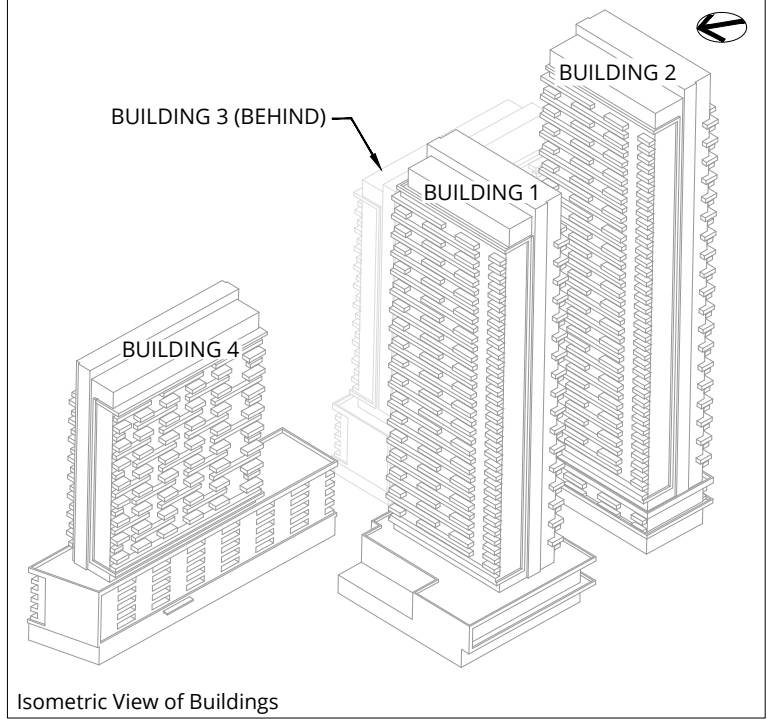
**Pedestrian Wind Safety Conditions**  
 Proposed with Mitigation Configuration  
 Annual (January to December, 0:00 to 23:00)  
 3085 Hurontario Street - Mississauga, ON

True North  
 Drawn by: GRE Figure: 3C  
 Approx. Scale: 1:1250  
 Date Revised: Sep. 5, 2023  
 Project #2300365





**Building 1 & 2 Amenity Level 5**  
Approx. Scale: 1:1000



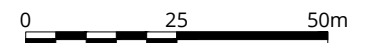
**LEGEND:**

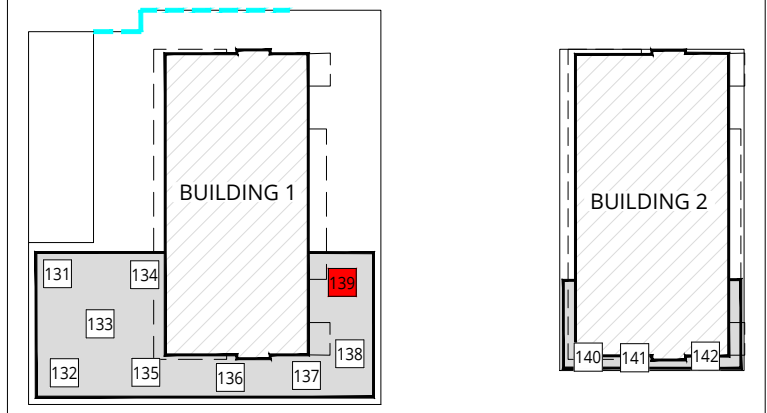
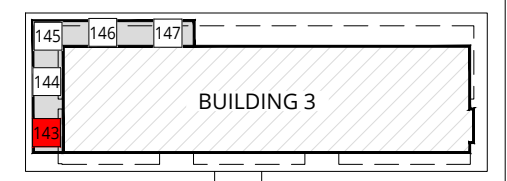
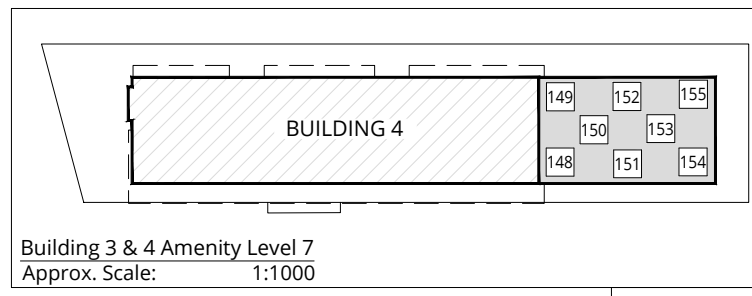
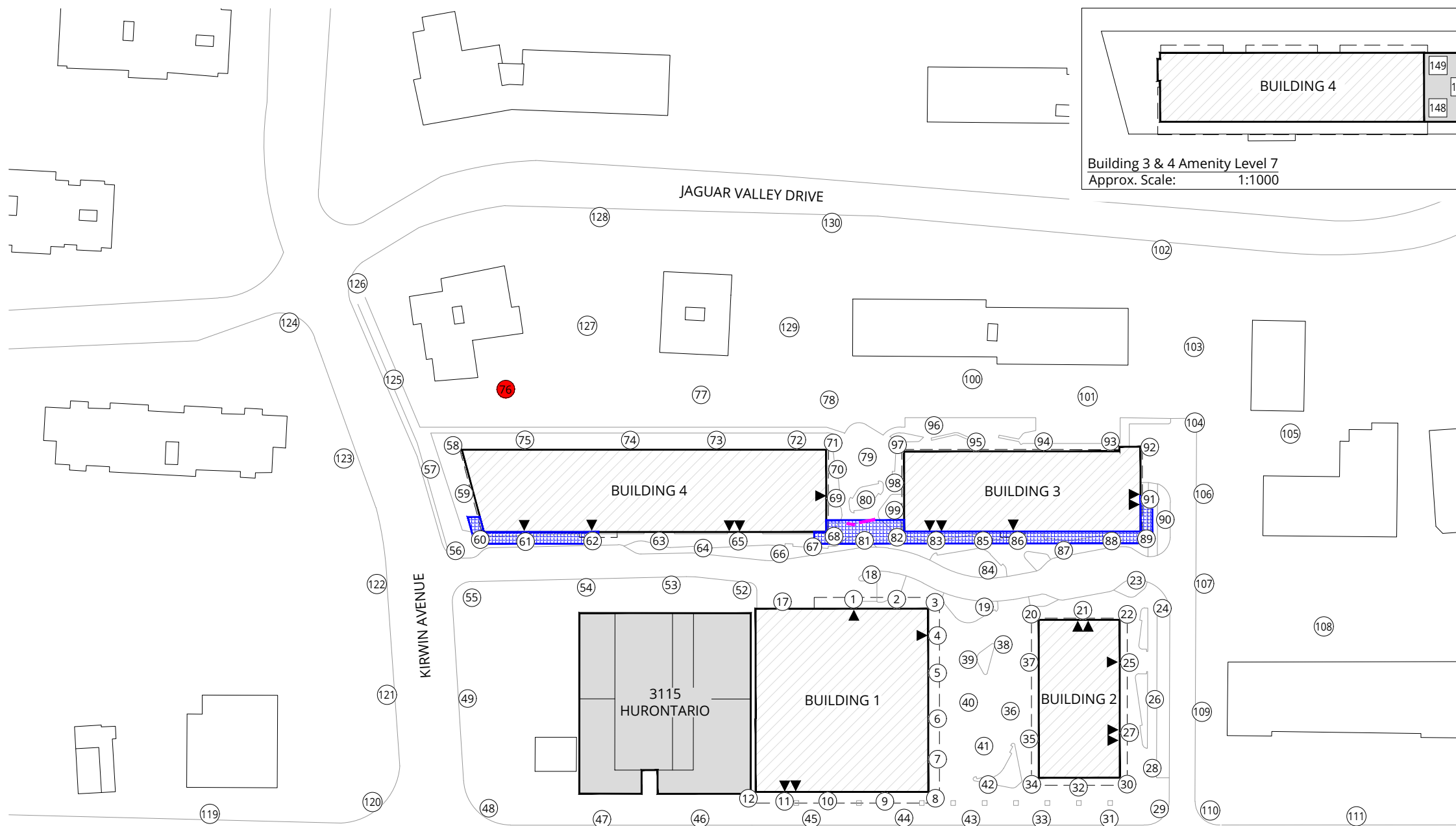
**SAFETY CATEGORIES:**

- Acceptable (white circle)
- Exceeded (red circle)

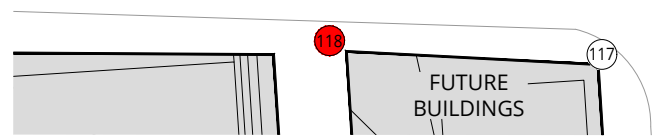
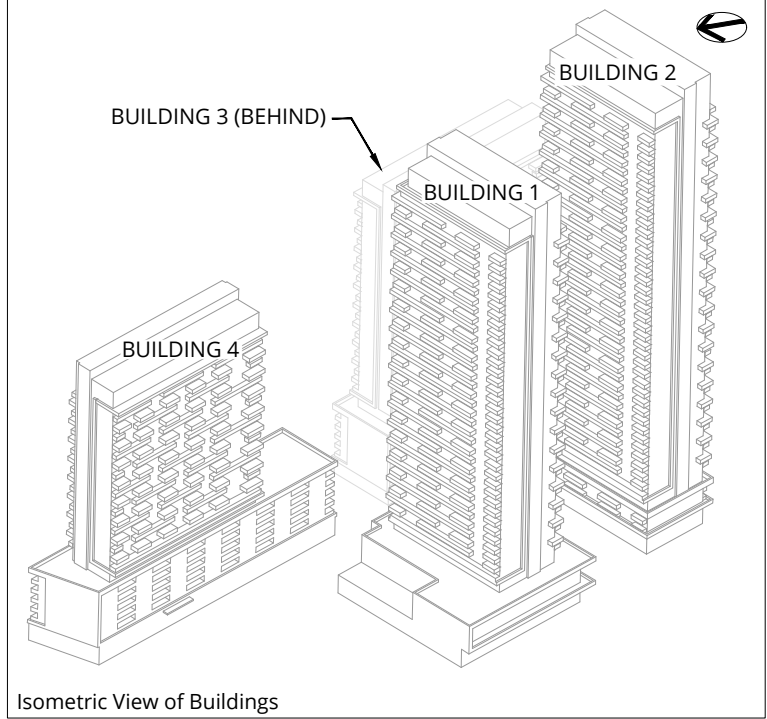
**SENSOR LOCATION:**

- Grade Level (white circle)
- Amenity Levels (grey square)
- Building Above Removed for Clarity (hatched square)
- Main Entrance Location (black triangle)





**Building 1 & 2 Amenity Level 5**  
Approx. Scale: 1:1000



**LEGEND:**

**SAFETY CATEGORIES:**

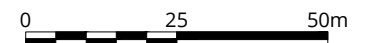
- Acceptable (White circle)
- Exceeded (Red circle)

**SENSOR LOCATION:**

- Grade Level (White circle)
- Amenity Levels (Grey square)
- Building Above Removed for Clarity (Hatched square)
- Main Entrance Location (Black triangle)

**MITIGATION:**

- 30% Porous Canopy (4m Tall, 3-4 Depth) (Blue hatched area)
- 30% Porous Guardrail (3m High including Parapet) (Cyan dashed line)
- 20-30% Porous Screen (2m High, 2 and 4m Widths) (Magenta dashed line)



**Pedestrian Wind Safety Conditions**  
Future with Mitigation Configuration  
Annual (January to December, 0:00 to 23:00)  
3085 Hurontario Street - Mississauga, ON

True North

Drawn by: GRE Figure: 3E

Approx. Scale: 1:1250

Date Revised: Sep. 5, 2023

Project #2300365

A large decorative graphic on the left side of the page. It features a blue triangular shape in the top-left corner, a white curved line separating it from a large, light gray circular area that dominates the lower half of the page. The word 'TABLES' is centered within this gray area.

# TABLES

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |        |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|--------|
|          |                          | Summer       |          | Winter       |               | Annual       |        |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating |
| 1        | Existing                 | 7            | Sitting  | 9            | Sitting       | 41           | Pass   |
|          | Proposed                 | 16           | Walking  | 19           | Walking       | 80           | Pass   |
|          | Proposed with Mitigation | 17           | Walking  | 21           | Uncomfortable | 83           | Pass   |
|          | Future                   | 15           | Standing | 17           | Walking       | 71           | Pass   |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 68           | Pass   |
| 2        | Existing                 | -            | -        | -            | -             | -            | -      |
|          | Proposed                 | 16           | Walking  | 18           | Walking       | 74           | Pass   |
|          | Proposed with Mitigation | 16           | Walking  | 19           | Walking       | 77           | Pass   |
|          | Future                   | 16           | Walking  | 18           | Walking       | 76           | Pass   |
|          | Future with Mitigation   | 15           | Standing | 17           | Walking       | 71           | Pass   |
| 3        | Existing                 | -            | -        | -            | -             | -            | -      |
|          | Proposed                 | 18           | Walking  | 21           | Uncomfortable | 82           | Pass   |
|          | Proposed with Mitigation | 18           | Walking  | 20           | Walking       | 77           | Pass   |
|          | Future                   | 19           | Walking  | 22           | Uncomfortable | 83           | Pass   |
|          | Future with Mitigation   | 18           | Walking  | 20           | Walking       | 75           | Pass   |
| 4        | Existing                 | -            | -        | -            | -             | -            | -      |
|          | Proposed                 | 12           | Standing | 13           | Standing      | 55           | Pass   |
|          | Proposed with Mitigation | 11           | Standing | 12           | Standing      | 54           | Pass   |
|          | Future                   | 12           | Standing | 13           | Standing      | 56           | Pass   |
|          | Future with Mitigation   | 11           | Standing | 12           | Standing      | 53           | Pass   |
| 5        | Existing                 | -            | -        | -            | -             | -            | -      |
|          | Proposed                 | 15           | Standing | 16           | Walking       | 75           | Pass   |
|          | Proposed with Mitigation | 14           | Standing | 16           | Walking       | 74           | Pass   |
|          | Future                   | 14           | Standing | 14           | Standing      | 75           | Pass   |
|          | Future with Mitigation   | 13           | Standing | 14           | Standing      | 72           | Pass   |
| 6        | Existing                 | -            | -        | -            | -             | -            | -      |
|          | Proposed                 | 15           | Standing | 17           | Walking       | 88           | Pass   |
|          | Proposed with Mitigation | 15           | Standing | 17           | Walking       | 85           | Pass   |
|          | Future                   | 14           | Standing | 14           | Standing      | 87           | Pass   |
|          | Future with Mitigation   | 13           | Standing | 14           | Standing      | 82           | Pass   |
| 7        | Existing                 | -            | -        | -            | -             | -            | -      |
|          | Proposed                 | 13           | Standing | 14           | Standing      | 81           | Pass   |
|          | Proposed with Mitigation | 13           | Standing | 14           | Standing      | 79           | Pass   |
|          | Future                   | 12           | Standing | 13           | Standing      | 81           | Pass   |
|          | Future with Mitigation   | 12           | Standing | 13           | Standing      | 78           | Pass   |
| 8        | Existing                 | -            | -        | -            | -             | -            | -      |
|          | Proposed                 | 17           | Walking  | 21           | Uncomfortable | 85           | Pass   |
|          | Proposed with Mitigation | 16           | Walking  | 20           | Walking       | 81           | Pass   |
|          | Future                   | 12           | Standing | 15           | Standing      | 72           | Pass   |
|          | Future with Mitigation   | 12           | Standing | 14           | Standing      | 69           | Pass   |
| 9        | Existing                 | -            | -        | -            | -             | -            | -      |
|          | Proposed                 | 13           | Standing | 15           | Standing      | 66           | Pass   |
|          | Proposed with Mitigation | 12           | Standing | 15           | Standing      | 66           | Pass   |
|          | Future                   | 10           | Sitting  | 11           | Standing      | 52           | Pass   |
|          | Future with Mitigation   | 10           | Sitting  | 11           | Standing      | 49           | Pass   |
| 10       | Existing                 | 12           | Standing | 15           | Standing      | 58           | Pass   |
|          | Proposed                 | 13           | Standing | 16           | Walking       | 63           | Pass   |
|          | Proposed with Mitigation | 11           | Standing | 13           | Standing      | 53           | Pass   |
|          | Future                   | 11           | Standing | 12           | Standing      | 58           | Pass   |
|          | Future with Mitigation   | 11           | Standing | 12           | Standing      | 54           | Pass   |
| 11       | Existing                 | 11           | Standing | 13           | Standing      | 53           | Pass   |
|          | Proposed                 | 13           | Standing | 15           | Standing      | 64           | Pass   |
|          | Proposed with Mitigation | 13           | Standing | 15           | Standing      | 62           | Pass   |
|          | Future                   | 11           | Standing | 13           | Standing      | 58           | Pass   |
|          | Future with Mitigation   | 11           | Standing | 12           | Standing      | 54           | Pass   |



**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |          |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|----------|
|          |                          | Summer       |          | Winter       |               | Annual       |          |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating   |
| 12       | Existing                 | 12           | Standing | 14           | Standing      | 55           | Pass     |
|          | Proposed                 | 16           | Walking  | 19           | Walking       | 78           | Pass     |
|          | Proposed with Mitigation | 16           | Walking  | 19           | Walking       | 78           | Pass     |
|          | Future                   | 11           | Standing | 12           | Standing      | 56           | Pass     |
|          | Future with Mitigation   | 10           | Sitting  | 12           | Standing      | 52           | Pass     |
| 13       | Existing                 | 11           | Standing | 13           | Standing      | 51           | Pass     |
|          | Proposed                 | 11           | Standing | 12           | Standing      | 52           | Pass     |
|          | Proposed with Mitigation | 11           | Standing | 13           | Standing      | 52           | Pass     |
|          | Future                   | -            | -        | -            | -             | -            | -        |
|          | Future with Mitigation   | -            | -        | -            | -             | -            | -        |
| 14       | Existing                 | 11           | Standing | 13           | Standing      | 53           | Pass     |
|          | Proposed                 | 11           | Standing | 13           | Standing      | 59           | Pass     |
|          | Proposed with Mitigation | 11           | Standing | 14           | Standing      | 59           | Pass     |
|          | Future                   | -            | -        | -            | -             | -            | -        |
|          | Future with Mitigation   | -            | -        | -            | -             | -            | -        |
| 15       | Existing                 | 10           | Sitting  | 12           | Standing      | 51           | Pass     |
|          | Proposed                 | -            | -        | -            | -             | -            | -        |
|          | Proposed with Mitigation | -            | -        | -            | -             | -            | -        |
|          | Future                   | -            | -        | -            | -             | -            | -        |
|          | Future with Mitigation   | -            | -        | -            | -             | -            | -        |
| 16       | Existing                 | 10           | Sitting  | 12           | Standing      | 49           | Pass     |
|          | Proposed                 | -            | -        | -            | -             | -            | -        |
|          | Proposed with Mitigation | -            | -        | -            | -             | -            | -        |
|          | Future                   | -            | -        | -            | -             | -            | -        |
|          | Future with Mitigation   | -            | -        | -            | -             | -            | -        |
| 17       | Existing                 | 10           | Sitting  | 12           | Standing      | 54           | Pass     |
|          | Proposed                 | 19           | Walking  | 22           | Uncomfortable | 94           | Exceeded |
|          | Proposed with Mitigation | 20           | Walking  | 23           | Uncomfortable | 94           | Exceeded |
|          | Future                   | 16           | Walking  | 17           | Walking       | 75           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 65           | Pass     |
| 18       | Existing                 | 8            | Sitting  | 10           | Sitting       | 45           | Pass     |
|          | Proposed                 | 18           | Walking  | 21           | Uncomfortable | 87           | Pass     |
|          | Proposed with Mitigation | 18           | Walking  | 22           | Uncomfortable | 87           | Pass     |
|          | Future                   | 18           | Walking  | 20           | Walking       | 81           | Pass     |
|          | Future with Mitigation   | 16           | Walking  | 18           | Walking       | 75           | Pass     |
| 19       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 18           | Walking  | 21           | Uncomfortable | 82           | Pass     |
|          | Proposed with Mitigation | 17           | Walking  | 20           | Walking       | 78           | Pass     |
|          | Future                   | 17           | Walking  | 19           | Walking       | 76           | Pass     |
|          | Future with Mitigation   | 16           | Walking  | 18           | Walking       | 71           | Pass     |
| 20       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 19           | Walking  | 23           | Uncomfortable | 95           | Exceeded |
|          | Proposed with Mitigation | 18           | Walking  | 22           | Uncomfortable | 93           | Exceeded |
|          | Future                   | 15           | Standing | 18           | Walking       | 85           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 17           | Walking       | 80           | Pass     |
| 21       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 16           | Walking  | 18           | Walking       | 76           | Pass     |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking       | 74           | Pass     |
|          | Future                   | 16           | Walking  | 18           | Walking       | 77           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 18           | Walking       | 74           | Pass     |
| 22       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 16           | Walking  | 18           | Walking       | 70           | Pass     |
|          | Proposed with Mitigation | 16           | Walking  | 18           | Walking       | 70           | Pass     |
|          | Future                   | 15           | Standing | 17           | Walking       | 73           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 16           | Walking       | 68           | Pass     |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |          |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|----------|
|          |                          | Summer       |          | Winter       |               | Annual       |          |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating   |
| 23       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 18           | Walking  | 22           | Uncomfortable | 97           | Exceeded |
|          | Proposed with Mitigation | 18           | Walking  | 21           | Uncomfortable | 97           | Exceeded |
|          | Future                   | 17           | Walking  | 19           | Walking       | 82           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 18           | Walking       | 74           | Pass     |
| 24       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 15           | Standing | 17           | Walking       | 70           | Pass     |
|          | Proposed with Mitigation | 15           | Standing | 17           | Walking       | 69           | Pass     |
|          | Future                   | 14           | Standing | 17           | Walking       | 69           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 65           | Pass     |
| 25       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 10           | Sitting  | 12           | Standing      | 67           | Pass     |
|          | Proposed with Mitigation | 10           | Sitting  | 12           | Standing      | 65           | Pass     |
|          | Future                   | 10           | Sitting  | 12           | Standing      | 65           | Pass     |
|          | Future with Mitigation   | 9            | Sitting  | 11           | Standing      | 62           | Pass     |
| 26       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 11           | Standing | 13           | Standing      | 74           | Pass     |
|          | Proposed with Mitigation | 11           | Standing | 13           | Standing      | 75           | Pass     |
|          | Future                   | 12           | Standing | 15           | Standing      | 78           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 14           | Standing      | 75           | Pass     |
| 27       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 10           | Sitting  | 11           | Standing      | 56           | Pass     |
|          | Proposed with Mitigation | 10           | Sitting  | 11           | Standing      | 56           | Pass     |
|          | Future                   | 11           | Standing | 13           | Standing      | 61           | Pass     |
|          | Future with Mitigation   | 10           | Sitting  | 12           | Standing      | 59           | Pass     |
| 28       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 16           | Walking  | 21           | Uncomfortable | 91           | Exceeded |
|          | Proposed with Mitigation | 16           | Walking  | 20           | Walking       | 91           | Exceeded |
|          | Future                   | 14           | Standing | 17           | Walking       | 86           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 16           | Walking       | 81           | Pass     |
| 29       | Existing                 | 10           | Sitting  | 12           | Standing      | 56           | Pass     |
|          | Proposed                 | 18           | Walking  | 21           | Uncomfortable | 81           | Pass     |
|          | Proposed with Mitigation | 18           | Walking  | 21           | Uncomfortable | 80           | Pass     |
|          | Future                   | 14           | Standing | 16           | Walking       | 71           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 67           | Pass     |
| 30       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 20           | Walking  | 24           | Uncomfortable | 91           | Exceeded |
|          | Proposed with Mitigation | 20           | Walking  | 24           | Uncomfortable | 92           | Exceeded |
|          | Future                   | 16           | Walking  | 18           | Walking       | 84           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 17           | Walking       | 79           | Pass     |
| 31       | Existing                 | 10           | Sitting  | 12           | Standing      | 50           | Pass     |
|          | Proposed                 | 18           | Walking  | 21           | Uncomfortable | 80           | Pass     |
|          | Proposed with Mitigation | 18           | Walking  | 21           | Uncomfortable | 79           | Pass     |
|          | Future                   | 14           | Standing | 15           | Standing      | 75           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 14           | Standing      | 71           | Pass     |
| 32       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 12           | Standing | 15           | Standing      | 71           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 15           | Standing      | 70           | Pass     |
|          | Future                   | 9            | Sitting  | 11           | Standing      | 48           | Pass     |
|          | Future with Mitigation   | 9            | Sitting  | 10           | Sitting       | 46           | Pass     |
| 33       | Existing                 | 11           | Standing | 13           | Standing      | 52           | Pass     |
|          | Proposed                 | 17           | Walking  | 19           | Walking       | 78           | Pass     |
|          | Proposed with Mitigation | 17           | Walking  | 19           | Walking       | 76           | Pass     |
|          | Future                   | 15           | Standing | 16           | Walking       | 68           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 15           | Standing      | 65           | Pass     |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |          | Wind Safety  |        |
|----------|--------------------------|--------------|----------|--------------|----------|--------------|--------|
|          |                          | Summer       |          | Winter       |          | Annual       |        |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating   | Speed (km/h) | Rating |
| 34       | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 15           | Standing | 17           | Walking  | 72           | Pass   |
|          | Proposed with Mitigation | 14           | Standing | 16           | Walking  | 66           | Pass   |
|          | Future                   | 15           | Standing | 17           | Walking  | 70           | Pass   |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking  | 66           | Pass   |
| 35       | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 17           | Walking  | 19           | Walking  | 79           | Pass   |
|          | Proposed with Mitigation | 17           | Walking  | 19           | Walking  | 79           | Pass   |
|          | Future                   | 18           | Walking  | 19           | Walking  | 79           | Pass   |
|          | Future with Mitigation   | 17           | Walking  | 18           | Walking  | 75           | Pass   |
| 36       | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 17           | Walking  | 19           | Walking  | 82           | Pass   |
|          | Proposed with Mitigation | 16           | Walking  | 19           | Walking  | 81           | Pass   |
|          | Future                   | 17           | Walking  | 18           | Walking  | 76           | Pass   |
|          | Future with Mitigation   | 16           | Walking  | 17           | Walking  | 72           | Pass   |
| 37       | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 16           | Walking  | 20           | Walking  | 87           | Pass   |
|          | Proposed with Mitigation | 16           | Walking  | 20           | Walking  | 86           | Pass   |
|          | Future                   | 15           | Standing | 17           | Walking  | 76           | Pass   |
|          | Future with Mitigation   | 14           | Standing | 15           | Standing | 67           | Pass   |
| 38       | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 15           | Standing | 18           | Walking  | 83           | Pass   |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking  | 83           | Pass   |
|          | Future                   | 14           | Standing | 17           | Walking  | 69           | Pass   |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking  | 66           | Pass   |
| 39       | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 15           | Standing | 18           | Walking  | 82           | Pass   |
|          | Proposed with Mitigation | 15           | Standing | 17           | Walking  | 79           | Pass   |
|          | Future                   | 14           | Standing | 15           | Standing | 78           | Pass   |
|          | Future with Mitigation   | 13           | Standing | 14           | Standing | 74           | Pass   |
| 40       | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 17           | Walking  | 19           | Walking  | 87           | Pass   |
|          | Proposed with Mitigation | 16           | Walking  | 18           | Walking  | 86           | Pass   |
|          | Future                   | 16           | Walking  | 17           | Walking  | 75           | Pass   |
|          | Future with Mitigation   | 15           | Standing | 16           | Walking  | 71           | Pass   |
| 41       | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 17           | Walking  | 19           | Walking  | 83           | Pass   |
|          | Proposed with Mitigation | 16           | Walking  | 18           | Walking  | 82           | Pass   |
|          | Future                   | 16           | Walking  | 18           | Walking  | 73           | Pass   |
|          | Future with Mitigation   | 15           | Standing | 17           | Walking  | 69           | Pass   |
| 42       | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 16           | Walking  | 19           | Walking  | 75           | Pass   |
|          | Proposed with Mitigation | 16           | Walking  | 18           | Walking  | 73           | Pass   |
|          | Future                   | 15           | Standing | 17           | Walking  | 69           | Pass   |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking  | 65           | Pass   |
| 43       | Existing                 | 10           | Sitting  | 13           | Standing | 51           | Pass   |
|          | Proposed                 | 17           | Walking  | 19           | Walking  | 82           | Pass   |
|          | Proposed with Mitigation | 17           | Walking  | 19           | Walking  | 81           | Pass   |
|          | Future                   | 13           | Standing | 15           | Standing | 64           | Pass   |
|          | Future with Mitigation   | 13           | Standing | 14           | Standing | 61           | Pass   |
| 44       | Existing                 | 11           | Standing | 13           | Standing | 53           | Pass   |
|          | Proposed                 | 15           | Standing | 18           | Walking  | 80           | Pass   |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking  | 80           | Pass   |
|          | Future                   | 11           | Standing | 12           | Standing | 57           | Pass   |
|          | Future with Mitigation   | 11           | Standing | 12           | Standing | 55           | Pass   |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |        |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|--------|
|          |                          | Summer       |          | Winter       |               | Annual       |        |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating |
| 45       | Existing                 | 12           | Standing | 14           | Standing      | 55           | Pass   |
|          | Proposed                 | 14           | Standing | 16           | Walking       | 78           | Pass   |
|          | Proposed with Mitigation | 14           | Standing | 16           | Walking       | 78           | Pass   |
|          | Future                   | 12           | Standing | 14           | Standing      | 70           | Pass   |
|          | Future with Mitigation   | 12           | Standing | 13           | Standing      | 67           | Pass   |
| 46       | Existing                 | 12           | Standing | 15           | Standing      | 59           | Pass   |
|          | Proposed                 | 15           | Standing | 16           | Walking       | 66           | Pass   |
|          | Proposed with Mitigation | 15           | Standing | 16           | Walking       | 66           | Pass   |
|          | Future                   | 14           | Standing | 16           | Walking       | 80           | Pass   |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 77           | Pass   |
| 47       | Existing                 | 13           | Standing | 15           | Standing      | 62           | Pass   |
|          | Proposed                 | 12           | Standing | 13           | Standing      | 53           | Pass   |
|          | Proposed with Mitigation | 12           | Standing | 13           | Standing      | 55           | Pass   |
|          | Future                   | 18           | Walking  | 21           | Uncomfortable | 86           | Pass   |
|          | Future with Mitigation   | 17           | Walking  | 20           | Walking       | 83           | Pass   |
| 48       | Existing                 | 13           | Standing | 15           | Standing      | 61           | Pass   |
|          | Proposed                 | 12           | Standing | 14           | Standing      | 54           | Pass   |
|          | Proposed with Mitigation | 12           | Standing | 14           | Standing      | 54           | Pass   |
|          | Future                   | 17           | Walking  | 19           | Walking       | 80           | Pass   |
|          | Future with Mitigation   | 16           | Walking  | 19           | Walking       | 76           | Pass   |
| 49       | Existing                 | 13           | Standing | 15           | Standing      | 61           | Pass   |
|          | Proposed                 | 12           | Standing | 14           | Standing      | 64           | Pass   |
|          | Proposed with Mitigation | 12           | Standing | 14           | Standing      | 64           | Pass   |
|          | Future                   | 14           | Standing | 15           | Standing      | 66           | Pass   |
|          | Future with Mitigation   | 13           | Standing | 14           | Standing      | 64           | Pass   |
| 50       | Existing                 | 12           | Standing | 14           | Standing      | 59           | Pass   |
|          | Proposed                 | 13           | Standing | 16           | Walking       | 73           | Pass   |
|          | Proposed with Mitigation | 13           | Standing | 16           | Walking       | 74           | Pass   |
|          | Future                   | -            | -        | -            | -             | -            | -      |
|          | Future with Mitigation   | -            | -        | -            | -             | -            | -      |
| 51       | Existing                 | 11           | Standing | 13           | Standing      | 56           | Pass   |
|          | Proposed                 | 13           | Standing | 16           | Walking       | 71           | Pass   |
|          | Proposed with Mitigation | 11           | Standing | 14           | Standing      | 64           | Pass   |
|          | Future                   | -            | -        | -            | -             | -            | -      |
|          | Future with Mitigation   | -            | -        | -            | -             | -            | -      |
| 52       | Existing                 | 10           | Sitting  | 13           | Standing      | 52           | Pass   |
|          | Proposed                 | 17           | Walking  | 20           | Walking       | 79           | Pass   |
|          | Proposed with Mitigation | 17           | Walking  | 20           | Walking       | 74           | Pass   |
|          | Future                   | 17           | Walking  | 19           | Walking       | 77           | Pass   |
|          | Future with Mitigation   | 16           | Walking  | 18           | Walking       | 72           | Pass   |
| 53       | Existing                 | 10           | Sitting  | 12           | Standing      | 51           | Pass   |
|          | Proposed                 | 16           | Walking  | 18           | Walking       | 74           | Pass   |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking       | 73           | Pass   |
|          | Future                   | 19           | Walking  | 21           | Uncomfortable | 84           | Pass   |
|          | Future with Mitigation   | 18           | Walking  | 20           | Walking       | 80           | Pass   |
| 54       | Existing                 | 11           | Standing | 13           | Standing      | 55           | Pass   |
|          | Proposed                 | 14           | Standing | 17           | Walking       | 70           | Pass   |
|          | Proposed with Mitigation | 13           | Standing | 16           | Walking       | 67           | Pass   |
|          | Future                   | 18           | Walking  | 21           | Uncomfortable | 79           | Pass   |
|          | Future with Mitigation   | 17           | Walking  | 20           | Walking       | 75           | Pass   |
| 55       | Existing                 | 13           | Standing | 16           | Walking       | 62           | Pass   |
|          | Proposed                 | 15           | Standing | 18           | Walking       | 88           | Pass   |
|          | Proposed with Mitigation | 14           | Standing | 18           | Walking       | 86           | Pass   |
|          | Future                   | 14           | Standing | 17           | Walking       | 78           | Pass   |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 73           | Pass   |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |          |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|----------|
|          |                          | Summer       |          | Winter       |               | Annual       |          |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating   |
| 56       | Existing                 | 12           | Standing | 14           | Standing      | 59           | Pass     |
|          | Proposed                 | 16           | Walking  | 20           | Walking       | 93           | Exceeded |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking       | 85           | Pass     |
|          | Future                   | 15           | Standing | 17           | Walking       | 74           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 67           | Pass     |
| 57       | Existing                 | 10           | Sitting  | 12           | Standing      | 53           | Pass     |
|          | Proposed                 | 15           | Standing | 19           | Walking       | 88           | Pass     |
|          | Proposed with Mitigation | 14           | Standing | 18           | Walking       | 83           | Pass     |
|          | Future                   | 13           | Standing | 16           | Walking       | 69           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 15           | Standing      | 66           | Pass     |
| 58       | Existing                 | 11           | Standing | 14           | Standing      | 59           | Pass     |
|          | Proposed                 | 18           | Walking  | 22           | Uncomfortable | 87           | Pass     |
|          | Proposed with Mitigation | 17           | Walking  | 22           | Uncomfortable | 83           | Pass     |
|          | Future                   | 17           | Walking  | 21           | Uncomfortable | 89           | Pass     |
|          | Future with Mitigation   | 16           | Walking  | 20           | Walking       | 85           | Pass     |
| 59       | Existing                 | 10           | Sitting  | 12           | Standing      | 50           | Pass     |
|          | Proposed                 | 10           | Sitting  | 13           | Standing      | 61           | Pass     |
|          | Proposed with Mitigation | 9            | Sitting  | 11           | Standing      | 48           | Pass     |
|          | Future                   | 10           | Sitting  | 12           | Standing      | 54           | Pass     |
|          | Future with Mitigation   | 9            | Sitting  | 11           | Standing      | 51           | Pass     |
| 60       | Existing                 | 10           | Sitting  | 13           | Standing      | 51           | Pass     |
|          | Proposed                 | 16           | Walking  | 20           | Walking       | 96           | Exceeded |
|          | Proposed with Mitigation | 17           | Walking  | 21           | Uncomfortable | 95           | Exceeded |
|          | Future                   | 16           | Walking  | 19           | Walking       | 79           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 18           | Walking       | 75           | Pass     |
| 61       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 12           | Standing | 14           | Standing      | 64           | Pass     |
|          | Proposed with Mitigation | 10           | Sitting  | 13           | Standing      | 61           | Pass     |
|          | Future                   | 14           | Standing | 16           | Walking       | 68           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 14           | Standing      | 59           | Pass     |
| 62       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 12           | Standing | 13           | Standing      | 57           | Pass     |
|          | Proposed with Mitigation | 10           | Sitting  | 12           | Standing      | 54           | Pass     |
|          | Future                   | 16           | Walking  | 18           | Walking       | 72           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 17           | Walking       | 65           | Pass     |
| 63       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 12           | Standing | 14           | Standing      | 61           | Pass     |
|          | Proposed with Mitigation | 11           | Standing | 13           | Standing      | 57           | Pass     |
|          | Future                   | 18           | Walking  | 20           | Walking       | 82           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 18           | Walking       | 73           | Pass     |
| 64       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 14           | Standing | 15           | Standing      | 66           | Pass     |
|          | Proposed with Mitigation | 13           | Standing | 15           | Standing      | 62           | Pass     |
|          | Future                   | 17           | Walking  | 19           | Walking       | 76           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 17           | Walking       | 72           | Pass     |
| 65       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 14           | Standing | 16           | Walking       | 64           | Pass     |
|          | Proposed with Mitigation | 13           | Standing | 15           | Standing      | 62           | Pass     |
|          | Future                   | 16           | Walking  | 17           | Walking       | 73           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 63           | Pass     |
| 66       | Existing                 | 7            | Sitting  | 8            | Sitting       | 40           | Pass     |
|          | Proposed                 | 18           | Walking  | 21           | Uncomfortable | 82           | Pass     |
|          | Proposed with Mitigation | 17           | Walking  | 20           | Walking       | 82           | Pass     |
|          | Future                   | 16           | Walking  | 18           | Walking       | 76           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 71           | Pass     |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |          |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|----------|
|          |                          | Summer       |          | Winter       |               | Annual       |          |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating   |
| 67       | Existing                 | 7            | Sitting  | 9            | Sitting       | 47           | Pass     |
|          | Proposed                 | 20           | Walking  | 24           | Uncomfortable | 95           | Exceeded |
|          | Proposed with Mitigation | 18           | Walking  | 22           | Uncomfortable | 93           | Exceeded |
|          | Future                   | 14           | Standing | 16           | Walking       | 75           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 14           | Standing      | 68           | Pass     |
| 68       | Existing                 | 8            | Sitting  | 10           | Sitting       | 45           | Pass     |
|          | Proposed                 | 20           | Walking  | 25           | Uncomfortable | 95           | Exceeded |
|          | Proposed with Mitigation | 20           | Walking  | 25           | Uncomfortable | 93           | Exceeded |
|          | Future                   | 15           | Standing | 17           | Walking       | 79           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 78           | Pass     |
| 69       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 15           | Standing | 17           | Walking       | 72           | Pass     |
|          | Proposed with Mitigation | 13           | Standing | 14           | Standing      | 62           | Pass     |
|          | Future                   | 16           | Walking  | 17           | Walking       | 76           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 14           | Standing      | 63           | Pass     |
| 70       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 14           | Standing | 16           | Walking       | 80           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 15           | Standing      | 68           | Pass     |
|          | Future                   | 14           | Standing | 16           | Walking       | 79           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 14           | Standing      | 61           | Pass     |
| 71       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 16           | Walking  | 19           | Walking       | 85           | Pass     |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking       | 85           | Pass     |
|          | Future                   | 16           | Walking  | 18           | Walking       | 79           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 17           | Walking       | 75           | Pass     |
| 72       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 13           | Standing | 15           | Standing      | 62           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 15           | Standing      | 61           | Pass     |
|          | Future                   | 12           | Standing | 13           | Standing      | 61           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing      | 58           | Pass     |
| 73       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 13           | Standing | 16           | Walking       | 64           | Pass     |
|          | Proposed with Mitigation | 13           | Standing | 16           | Walking       | 63           | Pass     |
|          | Future                   | 13           | Standing | 15           | Standing      | 64           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 14           | Standing      | 61           | Pass     |
| 74       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 12           | Standing | 15           | Standing      | 64           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 15           | Standing      | 63           | Pass     |
|          | Future                   | 11           | Standing | 13           | Standing      | 63           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing      | 60           | Pass     |
| 75       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 11           | Standing | 14           | Standing      | 67           | Pass     |
|          | Proposed with Mitigation | 11           | Standing | 14           | Standing      | 65           | Pass     |
|          | Future                   | 12           | Standing | 14           | Standing      | 67           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing      | 64           | Pass     |
| 76       | Existing                 | 11           | Standing | 13           | Standing      | 54           | Pass     |
|          | Proposed                 | 19           | Walking  | 24           | Uncomfortable | 103          | Exceeded |
|          | Proposed with Mitigation | 19           | Walking  | 24           | Uncomfortable | 101          | Exceeded |
|          | Future                   | 17           | Walking  | 21           | Uncomfortable | 96           | Exceeded |
|          | Future with Mitigation   | 16           | Walking  | 20           | Walking       | 93           | Exceeded |
| 77       | Existing                 | 11           | Standing | 14           | Standing      | 59           | Pass     |
|          | Proposed                 | 15           | Standing | 18           | Walking       | 69           | Pass     |
|          | Proposed with Mitigation | 15           | Standing | 17           | Walking       | 69           | Pass     |
|          | Future                   | 14           | Standing | 16           | Walking       | 69           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 65           | Pass     |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |          |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|----------|
|          |                          | Summer       |          | Winter       |               | Annual       |          |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating   |
| 78       | Existing                 | 10           | Sitting  | 11           | Standing      | 46           | Pass     |
|          | Proposed                 | 16           | Walking  | 19           | Walking       | 83           | Pass     |
|          | Proposed with Mitigation | 16           | Walking  | 19           | Walking       | 79           | Pass     |
|          | Future                   | 16           | Walking  | 18           | Walking       | 73           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 17           | Walking       | 72           | Pass     |
| 79       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 18           | Walking  | 22           | Uncomfortable | 95           | Exceeded |
|          | Proposed with Mitigation | 17           | Walking  | 20           | Walking       | 86           | Pass     |
|          | Future                   | 14           | Standing | 17           | Walking       | 77           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 16           | Walking       | 69           | Pass     |
| 80       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 18           | Walking  | 22           | Uncomfortable | 95           | Exceeded |
|          | Proposed with Mitigation | 14           | Standing | 17           | Walking       | 76           | Pass     |
|          | Future                   | 15           | Standing | 18           | Walking       | 86           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing      | 63           | Pass     |
| 81       | Existing                 | 12           | Standing | 15           | Standing      | 63           | Pass     |
|          | Proposed                 | 19           | Walking  | 22           | Uncomfortable | 89           | Pass     |
|          | Proposed with Mitigation | 18           | Walking  | 21           | Uncomfortable | 87           | Pass     |
|          | Future                   | 18           | Walking  | 20           | Walking       | 80           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 18           | Walking       | 71           | Pass     |
| 82       | Existing                 | 10           | Sitting  | 12           | Standing      | 55           | Pass     |
|          | Proposed                 | 19           | Walking  | 22           | Uncomfortable | 82           | Pass     |
|          | Proposed with Mitigation | 19           | Walking  | 22           | Uncomfortable | 82           | Pass     |
|          | Future                   | 19           | Walking  | 21           | Uncomfortable | 84           | Pass     |
|          | Future with Mitigation   | 18           | Walking  | 21           | Uncomfortable | 82           | Pass     |
| 83       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 14           | Standing | 17           | Walking       | 74           | Pass     |
|          | Proposed with Mitigation | 13           | Standing | 15           | Standing      | 69           | Pass     |
|          | Future                   | 14           | Standing | 15           | Standing      | 62           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 13           | Standing      | 54           | Pass     |
| 84       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 18           | Walking  | 20           | Walking       | 83           | Pass     |
|          | Proposed with Mitigation | 17           | Walking  | 19           | Walking       | 81           | Pass     |
|          | Future                   | 17           | Walking  | 20           | Walking       | 77           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 17           | Walking       | 71           | Pass     |
| 85       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 14           | Standing | 15           | Standing      | 71           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 14           | Standing      | 61           | Pass     |
|          | Future                   | 12           | Standing | 13           | Standing      | 58           | Pass     |
|          | Future with Mitigation   | 10           | Sitting  | 11           | Standing      | 48           | Pass     |
| 86       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 15           | Standing | 16           | Walking       | 68           | Pass     |
|          | Proposed with Mitigation | 14           | Standing | 15           | Standing      | 63           | Pass     |
|          | Future                   | 15           | Standing | 16           | Walking       | 66           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 13           | Standing      | 52           | Pass     |
| 87       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 18           | Walking  | 21           | Uncomfortable | 84           | Pass     |
|          | Proposed with Mitigation | 17           | Walking  | 20           | Walking       | 79           | Pass     |
|          | Future                   | 16           | Walking  | 18           | Walking       | 75           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 66           | Pass     |
| 88       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 17           | Walking  | 22           | Uncomfortable | 97           | Exceeded |
|          | Proposed with Mitigation | 15           | Standing | 19           | Walking       | 94           | Exceeded |
|          | Future                   | 15           | Standing | 18           | Walking       | 80           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 15           | Standing      | 74           | Pass     |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |          |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|----------|
|          |                          | Summer       |          | Winter       |               | Annual       |          |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating   |
| 89       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 18           | Walking  | 22           | Uncomfortable | 99           | Exceeded |
|          | Proposed with Mitigation | 16           | Walking  | 20           | Walking       | 93           | Exceeded |
|          | Future                   | 16           | Walking  | 19           | Walking       | 82           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 74           | Pass     |
| 90       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 12           | Standing | 14           | Standing      | 82           | Pass     |
|          | Proposed with Mitigation | 11           | Standing | 13           | Standing      | 75           | Pass     |
|          | Future                   | 13           | Standing | 16           | Walking       | 86           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 15           | Standing      | 77           | Pass     |
| 91       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 9            | Sitting  | 10           | Sitting       | 51           | Pass     |
|          | Proposed with Mitigation | 9            | Sitting  | 10           | Sitting       | 50           | Pass     |
|          | Future                   | 9            | Sitting  | 10           | Sitting       | 51           | Pass     |
|          | Future with Mitigation   | 9            | Sitting  | 10           | Sitting       | 50           | Pass     |
| 92       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 15           | Standing | 17           | Walking       | 64           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 13           | Standing      | 55           | Pass     |
|          | Future                   | 13           | Standing | 13           | Standing      | 58           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 12           | Standing      | 55           | Pass     |
| 93       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 12           | Standing | 15           | Standing      | 66           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 14           | Standing      | 64           | Pass     |
|          | Future                   | 11           | Standing | 12           | Standing      | 66           | Pass     |
|          | Future with Mitigation   | 10           | Sitting  | 12           | Standing      | 62           | Pass     |
| 94       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 13           | Standing | 15           | Standing      | 66           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 14           | Standing      | 61           | Pass     |
|          | Future                   | 12           | Standing | 13           | Standing      | 62           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 12           | Standing      | 58           | Pass     |
| 95       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 13           | Standing | 15           | Standing      | 64           | Pass     |
|          | Proposed with Mitigation | 13           | Standing | 15           | Standing      | 63           | Pass     |
|          | Future                   | 12           | Standing | 14           | Standing      | 63           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 13           | Standing      | 59           | Pass     |
| 96       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 14           | Standing | 16           | Walking       | 67           | Pass     |
|          | Proposed with Mitigation | 14           | Standing | 15           | Standing      | 67           | Pass     |
|          | Future                   | 14           | Standing | 16           | Walking       | 64           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 14           | Standing      | 59           | Pass     |
| 97       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 18           | Walking  | 23           | Uncomfortable | 101          | Exceeded |
|          | Proposed with Mitigation | 17           | Walking  | 21           | Uncomfortable | 88           | Pass     |
|          | Future                   | 13           | Standing | 16           | Walking       | 73           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 15           | Standing      | 67           | Pass     |
| 98       | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 17           | Walking  | 21           | Uncomfortable | 91           | Exceeded |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking       | 75           | Pass     |
|          | Future                   | 13           | Standing | 15           | Standing      | 69           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing      | 61           | Pass     |
| 99       | Existing                 | 10           | Sitting  | 12           | Standing      | 51           | Pass     |
|          | Proposed                 | 16           | Walking  | 19           | Walking       | 79           | Pass     |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking       | 76           | Pass     |
|          | Future                   | 13           | Standing | 16           | Walking       | 70           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 14           | Standing      | 63           | Pass     |



**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |          |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|----------|
|          |                          | Summer       |          | Winter       |               | Annual       |          |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating   |
| 100      | Existing                 | 11           | Standing | 14           | Standing      | 60           | Pass     |
|          | Proposed                 | 18           | Walking  | 21           | Uncomfortable | 91           | Exceeded |
|          | Proposed with Mitigation | 17           | Walking  | 20           | Walking       | 89           | Pass     |
|          | Future                   | 15           | Standing | 17           | Walking       | 74           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 70           | Pass     |
| 101      | Existing                 | 12           | Standing | 15           | Standing      | 62           | Pass     |
|          | Proposed                 | 18           | Walking  | 20           | Walking       | 83           | Pass     |
|          | Proposed with Mitigation | 18           | Walking  | 20           | Walking       | 81           | Pass     |
|          | Future                   | 16           | Walking  | 16           | Walking       | 67           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 16           | Walking       | 63           | Pass     |
| 102      | Existing                 | 13           | Standing | 15           | Standing      | 63           | Pass     |
|          | Proposed                 | 15           | Standing | 18           | Walking       | 71           | Pass     |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking       | 70           | Pass     |
|          | Future                   | 15           | Standing | 17           | Walking       | 65           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 62           | Pass     |
| 103      | Existing                 | 9            | Sitting  | 11           | Standing      | 52           | Pass     |
|          | Proposed                 | 12           | Standing | 13           | Standing      | 64           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 13           | Standing      | 66           | Pass     |
|          | Future                   | 12           | Standing | 14           | Standing      | 68           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 13           | Standing      | 66           | Pass     |
| 104      | Existing                 | 9            | Sitting  | 11           | Standing      | 47           | Pass     |
|          | Proposed                 | 17           | Walking  | 19           | Walking       | 74           | Pass     |
|          | Proposed with Mitigation | 17           | Walking  | 19           | Walking       | 76           | Pass     |
|          | Future                   | 17           | Walking  | 18           | Walking       | 77           | Pass     |
|          | Future with Mitigation   | 16           | Walking  | 18           | Walking       | 76           | Pass     |
| 105      | Existing                 | 11           | Standing | 14           | Standing      | 57           | Pass     |
|          | Proposed                 | 13           | Standing | 16           | Walking       | 72           | Pass     |
|          | Proposed with Mitigation | 13           | Standing | 15           | Standing      | 71           | Pass     |
|          | Future                   | 13           | Standing | 16           | Walking       | 72           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 68           | Pass     |
| 106      | Existing                 | 7            | Sitting  | 8            | Sitting       | 36           | Pass     |
|          | Proposed                 | 14           | Standing | 17           | Walking       | 80           | Pass     |
|          | Proposed with Mitigation | 14           | Standing | 17           | Walking       | 78           | Pass     |
|          | Future                   | 14           | Standing | 17           | Walking       | 84           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 16           | Walking       | 77           | Pass     |
| 107      | Existing                 | 8            | Sitting  | 10           | Sitting       | 41           | Pass     |
|          | Proposed                 | 15           | Standing | 17           | Walking       | 71           | Pass     |
|          | Proposed with Mitigation | 15           | Standing | 17           | Walking       | 71           | Pass     |
|          | Future                   | 14           | Standing | 16           | Walking       | 66           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 63           | Pass     |
| 108      | Existing                 | 9            | Sitting  | 11           | Standing      | 52           | Pass     |
|          | Proposed                 | 12           | Standing | 14           | Standing      | 69           | Pass     |
|          | Proposed with Mitigation | 11           | Standing | 14           | Standing      | 67           | Pass     |
|          | Future                   | 12           | Standing | 15           | Standing      | 70           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 14           | Standing      | 65           | Pass     |
| 109      | Existing                 | 10           | Sitting  | 12           | Standing      | 57           | Pass     |
|          | Proposed                 | 15           | Standing | 18           | Walking       | 91           | Exceeded |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking       | 92           | Exceeded |
|          | Future                   | 13           | Standing | 16           | Walking       | 83           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 79           | Pass     |
| 110      | Existing                 | 12           | Standing | 15           | Standing      | 62           | Pass     |
|          | Proposed                 | 16           | Walking  | 20           | Walking       | 79           | Pass     |
|          | Proposed with Mitigation | 16           | Walking  | 20           | Walking       | 78           | Pass     |
|          | Future                   | 13           | Standing | 15           | Standing      | 68           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 14           | Standing      | 64           | Pass     |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |          |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|----------|
|          |                          | Summer       |          | Winter       |               | Annual       |          |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating   |
| 111      | Existing                 | 12           | Standing | 14           | Standing      | 56           | Pass     |
|          | Proposed                 | 14           | Standing | 17           | Walking       | 74           | Pass     |
|          | Proposed with Mitigation | 14           | Standing | 17           | Walking       | 73           | Pass     |
|          | Future                   | 11           | Standing | 13           | Standing      | 63           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing      | 60           | Pass     |
| 112      | Existing                 | 12           | Standing | 15           | Standing      | 61           | Pass     |
|          | Proposed                 | 14           | Standing | 18           | Walking       | 68           | Pass     |
|          | Proposed with Mitigation | 14           | Standing | 17           | Walking       | 68           | Pass     |
|          | Future                   | 12           | Standing | 15           | Standing      | 64           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 14           | Standing      | 61           | Pass     |
| 113      | Existing                 | 12           | Standing | 15           | Standing      | 58           | Pass     |
|          | Proposed                 | 15           | Standing | 19           | Walking       | 77           | Pass     |
|          | Proposed with Mitigation | 15           | Standing | 18           | Walking       | 77           | Pass     |
|          | Future                   | 14           | Standing | 16           | Walking       | 71           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 16           | Walking       | 68           | Pass     |
| 114      | Existing                 | 11           | Standing | 13           | Standing      | 57           | Pass     |
|          | Proposed                 | 16           | Walking  | 19           | Walking       | 76           | Pass     |
|          | Proposed with Mitigation | 16           | Walking  | 18           | Walking       | 76           | Pass     |
|          | Future                   | 16           | Walking  | 18           | Walking       | 89           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 17           | Walking       | 87           | Pass     |
| 115      | Existing                 | 14           | Standing | 16           | Walking       | 73           | Pass     |
|          | Proposed                 | 15           | Standing | 17           | Walking       | 65           | Pass     |
|          | Proposed with Mitigation | 14           | Standing | 17           | Walking       | 65           | Pass     |
|          | Future                   | 16           | Walking  | 19           | Walking       | 81           | Pass     |
|          | Future with Mitigation   | 16           | Walking  | 18           | Walking       | 77           | Pass     |
| 116      | Existing                 | 14           | Standing | 17           | Walking       | 73           | Pass     |
|          | Proposed                 | 12           | Standing | 13           | Standing      | 57           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 13           | Standing      | 59           | Pass     |
|          | Future                   | 15           | Standing | 17           | Walking       | 67           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 64           | Pass     |
| 117      | Existing                 | 13           | Standing | 16           | Walking       | 62           | Pass     |
|          | Proposed                 | 12           | Standing | 14           | Standing      | 55           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 14           | Standing      | 56           | Pass     |
|          | Future                   | 20           | Walking  | 22           | Uncomfortable | 87           | Pass     |
|          | Future with Mitigation   | 19           | Walking  | 21           | Uncomfortable | 83           | Pass     |
| 118      | Existing                 | 12           | Standing | 15           | Standing      | 58           | Pass     |
|          | Proposed                 | 11           | Standing | 13           | Standing      | 52           | Pass     |
|          | Proposed with Mitigation | 11           | Standing | 13           | Standing      | 52           | Pass     |
|          | Future                   | 16           | Walking  | 19           | Walking       | 96           | Exceeded |
|          | Future with Mitigation   | 15           | Standing | 18           | Walking       | 91           | Exceeded |
| 119      | Existing                 | 12           | Standing | 15           | Standing      | 60           | Pass     |
|          | Proposed                 | 12           | Standing | 14           | Standing      | 57           | Pass     |
|          | Proposed with Mitigation | 9            | Sitting  | 10           | Sitting       | 43           | Pass     |
|          | Future                   | 15           | Standing | 16           | Walking       | 75           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 15           | Standing      | 71           | Pass     |
| 120      | Existing                 | 12           | Standing | 15           | Standing      | 60           | Pass     |
|          | Proposed                 | 12           | Standing | 14           | Standing      | 57           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 14           | Standing      | 56           | Pass     |
|          | Future                   | 16           | Walking  | 18           | Walking       | 76           | Pass     |
|          | Future with Mitigation   | 16           | Walking  | 17           | Walking       | 73           | Pass     |
| 121      | Existing                 | 12           | Standing | 15           | Standing      | 59           | Pass     |
|          | Proposed                 | 12           | Standing | 14           | Standing      | 58           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 14           | Standing      | 57           | Pass     |
|          | Future                   | 15           | Standing | 16           | Walking       | 77           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 15           | Standing      | 73           | Pass     |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |          | Wind Safety  |        |
|----------|--------------------------|--------------|----------|--------------|----------|--------------|--------|
|          |                          | Summer       |          | Winter       |          | Annual       |        |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating   | Speed (km/h) | Rating |
| 122      | Existing                 | 13           | Standing | 16           | Walking  | 64           | Pass   |
|          | Proposed                 | 13           | Standing | 16           | Walking  | 78           | Pass   |
|          | Proposed with Mitigation | 13           | Standing | 15           | Standing | 76           | Pass   |
|          | Future                   | 15           | Standing | 17           | Walking  | 80           | Pass   |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking  | 76           | Pass   |
| 123      | Existing                 | 10           | Sitting  | 13           | Standing | 63           | Pass   |
|          | Proposed                 | 14           | Standing | 18           | Walking  | 78           | Pass   |
|          | Proposed with Mitigation | 14           | Standing | 17           | Walking  | 76           | Pass   |
|          | Future                   | 14           | Standing | 17           | Walking  | 80           | Pass   |
|          | Future with Mitigation   | 13           | Standing | 16           | Walking  | 77           | Pass   |
| 124      | Existing                 | 12           | Standing | 15           | Standing | 63           | Pass   |
|          | Proposed                 | 14           | Standing | 17           | Walking  | 78           | Pass   |
|          | Proposed with Mitigation | 13           | Standing | 16           | Walking  | 77           | Pass   |
|          | Future                   | 14           | Standing | 17           | Walking  | 88           | Pass   |
|          | Future with Mitigation   | 13           | Standing | 16           | Walking  | 85           | Pass   |
| 125      | Existing                 | 12           | Standing | 13           | Standing | 54           | Pass   |
|          | Proposed                 | 13           | Standing | 17           | Walking  | 81           | Pass   |
|          | Proposed with Mitigation | 13           | Standing | 17           | Walking  | 80           | Pass   |
|          | Future                   | 12           | Standing | 14           | Standing | 59           | Pass   |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing | 56           | Pass   |
| 126      | Existing                 | 11           | Standing | 14           | Standing | 60           | Pass   |
|          | Proposed                 | 13           | Standing | 17           | Walking  | 82           | Pass   |
|          | Proposed with Mitigation | 13           | Standing | 17           | Walking  | 82           | Pass   |
|          | Future                   | 13           | Standing | 17           | Walking  | 82           | Pass   |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing | 78           | Pass   |
| 127      | Existing                 | 10           | Sitting  | 11           | Standing | 45           | Pass   |
|          | Proposed                 | 13           | Standing | 16           | Walking  | 71           | Pass   |
|          | Proposed with Mitigation | 13           | Standing | 16           | Walking  | 71           | Pass   |
|          | Future                   | 11           | Standing | 14           | Standing | 56           | Pass   |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing | 53           | Pass   |
| 128      | Existing                 | 12           | Standing | 14           | Standing | 57           | Pass   |
|          | Proposed                 | 15           | Standing | 18           | Walking  | 85           | Pass   |
|          | Proposed with Mitigation | 14           | Standing | 17           | Walking  | 83           | Pass   |
|          | Future                   | 14           | Standing | 16           | Walking  | 66           | Pass   |
|          | Future with Mitigation   | 14           | Standing | 15           | Standing | 64           | Pass   |
| 129      | Existing                 | 10           | Sitting  | 13           | Standing | 71           | Pass   |
|          | Proposed                 | 13           | Standing | 15           | Standing | 74           | Pass   |
|          | Proposed with Mitigation | 12           | Standing | 14           | Standing | 69           | Pass   |
|          | Future                   | 11           | Standing | 13           | Standing | 57           | Pass   |
|          | Future with Mitigation   | 11           | Standing | 12           | Standing | 56           | Pass   |
| 130      | Existing                 | 12           | Standing | 14           | Standing | 59           | Pass   |
|          | Proposed                 | 15           | Standing | 17           | Walking  | 70           | Pass   |
|          | Proposed with Mitigation | 15           | Standing | 17           | Walking  | 70           | Pass   |
|          | Future                   | 15           | Standing | 17           | Walking  | 66           | Pass   |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking  | 63           | Pass   |
| 131      | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 13           | Standing | 16           | Walking  | 67           | Pass   |
|          | Proposed with Mitigation | 13           | Standing | 16           | Walking  | 66           | Pass   |
|          | Future                   | 12           | Standing | 13           | Standing | 67           | Pass   |
|          | Future with Mitigation   | 12           | Standing | 13           | Standing | 63           | Pass   |
| 132      | Existing                 | -            | -        | -            | -        | -            | -      |
|          | Proposed                 | 17           | Walking  | 19           | Walking  | 75           | Pass   |
|          | Proposed with Mitigation | 16           | Walking  | 19           | Walking  | 74           | Pass   |
|          | Future                   | 11           | Standing | 13           | Standing | 59           | Pass   |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing | 58           | Pass   |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |          |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|----------|
|          |                          | Summer       |          | Winter       |               | Annual       |          |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating   |
| 133      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 16           | Walking  | 19           | Walking       | 79           | Pass     |
|          | Proposed with Mitigation | 16           | Walking  | 19           | Walking       | 78           | Pass     |
|          | Future                   | 17           | Walking  | 19           | Walking       | 80           | Pass     |
|          | Future with Mitigation   | 16           | Walking  | 18           | Walking       | 77           | Pass     |
| 134      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 10           | Sitting  | 12           | Standing      | 65           | Pass     |
|          | Proposed with Mitigation | 10           | Sitting  | 12           | Standing      | 64           | Pass     |
|          | Future                   | 18           | Walking  | 21           | Uncomfortable | 93           | Exceeded |
|          | Future with Mitigation   | 16           | Walking  | 19           | Walking       | 85           | Pass     |
| 135      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 19           | Walking  | 21           | Uncomfortable | 84           | Pass     |
|          | Proposed with Mitigation | 19           | Walking  | 21           | Uncomfortable | 83           | Pass     |
|          | Future                   | 18           | Walking  | 21           | Uncomfortable | 82           | Pass     |
|          | Future with Mitigation   | 17           | Walking  | 19           | Walking       | 78           | Pass     |
| 136      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 13           | Standing | 14           | Standing      | 61           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 13           | Standing      | 59           | Pass     |
|          | Future                   | 11           | Standing | 11           | Standing      | 51           | Pass     |
|          | Future with Mitigation   | 10           | Sitting  | 11           | Standing      | 48           | Pass     |
| 137      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 16           | Walking  | 19           | Walking       | 82           | Pass     |
|          | Proposed with Mitigation | 16           | Walking  | 19           | Walking       | 81           | Pass     |
|          | Future                   | 13           | Standing | 16           | Walking       | 73           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 69           | Pass     |
| 138      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 16           | Walking  | 20           | Walking       | 85           | Pass     |
|          | Proposed with Mitigation | 16           | Walking  | 19           | Walking       | 84           | Pass     |
|          | Future                   | 13           | Standing | 16           | Walking       | 79           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 75           | Pass     |
| 139      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 16           | Walking  | 19           | Walking       | 98           | Exceeded |
|          | Proposed with Mitigation | 16           | Walking  | 19           | Walking       | 97           | Exceeded |
|          | Future                   | 16           | Walking  | 19           | Walking       | 97           | Exceeded |
|          | Future with Mitigation   | 15           | Standing | 18           | Walking       | 92           | Exceeded |
| 140      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 15           | Standing | 17           | Walking       | 72           | Pass     |
|          | Proposed with Mitigation | 14           | Standing | 16           | Walking       | 66           | Pass     |
|          | Future                   | 15           | Standing | 17           | Walking       | 70           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 66           | Pass     |
| 141      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 12           | Standing | 15           | Standing      | 71           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 15           | Standing      | 70           | Pass     |
|          | Future                   | 9            | Sitting  | 11           | Standing      | 48           | Pass     |
|          | Future with Mitigation   | 9            | Sitting  | 10           | Sitting       | 46           | Pass     |
| 142      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 20           | Walking  | 24           | Uncomfortable | 91           | Exceeded |
|          | Proposed with Mitigation | 20           | Walking  | 24           | Uncomfortable | 92           | Exceeded |
|          | Future                   | 16           | Walking  | 18           | Walking       | 84           | Pass     |
|          | Future with Mitigation   | 15           | Standing | 17           | Walking       | 79           | Pass     |
| 143      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 18           | Walking  | 22           | Uncomfortable | 100          | Exceeded |
|          | Proposed with Mitigation | 18           | Walking  | 21           | Uncomfortable | 97           | Exceeded |
|          | Future                   | 18           | Walking  | 21           | Uncomfortable | 99           | Exceeded |
|          | Future with Mitigation   | 17           | Walking  | 20           | Walking       | 94           | Exceeded |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location | Configuration            | Wind Comfort |          |              |               | Wind Safety  |          |
|----------|--------------------------|--------------|----------|--------------|---------------|--------------|----------|
|          |                          | Summer       |          | Winter       |               | Annual       |          |
|          |                          | Speed (km/h) | Rating   | Speed (km/h) | Rating        | Speed (km/h) | Rating   |
| 144      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 12           | Standing | 15           | Standing      | 68           | Pass     |
|          | Proposed with Mitigation | 12           | Standing | 14           | Standing      | 65           | Pass     |
|          | Future                   | 11           | Standing | 13           | Standing      | 57           | Pass     |
|          | Future with Mitigation   | 10           | Sitting  | 12           | Standing      | 56           | Pass     |
| 145      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 15           | Standing | 19           | Walking       | 80           | Pass     |
|          | Proposed with Mitigation | 15           | Standing | 19           | Walking       | 77           | Pass     |
|          | Future                   | 12           | Standing | 14           | Standing      | 72           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 14           | Standing      | 69           | Pass     |
| 146      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 14           | Standing | 17           | Walking       | 81           | Pass     |
|          | Proposed with Mitigation | 14           | Standing | 16           | Walking       | 79           | Pass     |
|          | Future                   | 13           | Standing | 15           | Standing      | 77           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 73           | Pass     |
| 147      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 13           | Standing | 15           | Standing      | 70           | Pass     |
|          | Proposed with Mitigation | 13           | Standing | 15           | Standing      | 70           | Pass     |
|          | Future                   | 13           | Standing | 15           | Standing      | 70           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 14           | Standing      | 67           | Pass     |
| 148      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 13           | Standing | 17           | Walking       | 101          | Exceeded |
|          | Proposed with Mitigation | 13           | Standing | 17           | Walking       | 101          | Exceeded |
|          | Future                   | 11           | Standing | 13           | Standing      | 66           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 12           | Standing      | 62           | Pass     |
| 149      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 13           | Standing | 15           | Standing      | 82           | Pass     |
|          | Proposed with Mitigation | 13           | Standing | 15           | Standing      | 84           | Pass     |
|          | Future                   | 13           | Standing | 15           | Standing      | 74           | Pass     |
|          | Future with Mitigation   | 12           | Standing | 14           | Standing      | 69           | Pass     |
| 150      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 16           | Walking  | 21           | Uncomfortable | 113          | Exceeded |
|          | Proposed with Mitigation | 16           | Walking  | 20           | Walking       | 110          | Exceeded |
|          | Future                   | 12           | Standing | 13           | Standing      | 63           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing      | 59           | Pass     |
| 151      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 17           | Walking  | 20           | Walking       | 93           | Exceeded |
|          | Proposed with Mitigation | 17           | Walking  | 20           | Walking       | 92           | Exceeded |
|          | Future                   | 12           | Standing | 13           | Standing      | 60           | Pass     |
|          | Future with Mitigation   | 11           | Standing | 13           | Standing      | 57           | Pass     |
| 152      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 17           | Walking  | 21           | Uncomfortable | 93           | Exceeded |
|          | Proposed with Mitigation | 17           | Walking  | 20           | Walking       | 89           | Pass     |
|          | Future                   | 14           | Standing | 16           | Walking       | 74           | Pass     |
|          | Future with Mitigation   | 14           | Standing | 16           | Walking       | 70           | Pass     |
| 153      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 19           | Walking  | 23           | Uncomfortable | 105          | Exceeded |
|          | Proposed with Mitigation | 18           | Walking  | 22           | Uncomfortable | 102          | Exceeded |
|          | Future                   | 14           | Standing | 16           | Walking       | 68           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 65           | Pass     |
| 154      | Existing                 | -            | -        | -            | -             | -            | -        |
|          | Proposed                 | 17           | Walking  | 21           | Uncomfortable | 96           | Exceeded |
|          | Proposed with Mitigation | 17           | Walking  | 20           | Walking       | 92           | Exceeded |
|          | Future                   | 14           | Standing | 16           | Walking       | 67           | Pass     |
|          | Future with Mitigation   | 13           | Standing | 15           | Standing      | 64           | Pass     |

**Table 1: Pedestrian Wind Comfort and Safety Conditions**

| Location                 | Configuration                                     | Wind Comfort             |                           |               |                          | Wind Safety  |        |
|--------------------------|---|--------------------------|---------------------------|---------------|--------------------------|--------------|--------|
|                          |   | Summer                   |                           | Winter        |                          | Annual       |        |
|                          |   | Speed (km/h)             | Rating                    | Speed (km/h)  | Rating                   | Speed (km/h) | Rating |
| 155                      | Existing  | -                        | -                         | -             | -                        | -            | -      |
|                          | Proposed  | 17                       | Walking                   | 21            | Uncomfortable            | 85           | Pass   |
|                          | Proposed with Mitigation                          | 16                       | Walking                   | 20            | Walking                  | 83           | Pass   |
|                          | Future  | 14                       | Standing                  | 16            | Walking                  | 70           | Pass   |
|                          | Future with Mitigation                            | 14                       | Standing                  | 16            | Walking                  | 66           | Pass   |
| Season                   | Months  | Hours                    | Comfort Speed (km/h)      |               | Safety Speed (km/h)      |              |        |
| Summer                   | May - October                                     | 6:00 - 23:00 for comfort | (20% Seasonal Exceedance) |               | (0.1% Annual Exceedance) |              |        |
| Winter                   | November - April                                  | 6:00 - 23:00 for comfort | ≤ 10                      | Sitting       | ≤ 90 Pass                |              |        |
| Annual                   | January - December                                | 0:00 - 23:00 for safety  | 11 - 15                   | Standing      | > 90 Exceeded            |              |        |
| Configurations           |   |                          | 16 - 20                   | Walking       |                          |              |        |
| Existing                 | Existing site and surroundings                    |                          | > 20                      | Uncomfortable |                          |              |        |
| Proposed                 | Project with existing surroundings                |                          |                           |               |                          |              |        |
| Proposed with Mitigation | Project with mitigation and existing surroundings |                          |                           |               |                          |              |        |
| Future                   | Project with future surroundings                  |                          |                           |               |                          |              |        |
| Future with Mitigation   | Project with mitigation and future surroundings   |                          |                           |               |                          |              |        |