REPORT

23 ELIZABETH STREET NORTH

MISSISSAUGA, ON

PEDESTRIAN WIND STUDY
RWDI # 2509259
May 27, 2025

SUBMITTED TO

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EXECUTIVE SUMMARY

RWDI was retained to conduct a pedestrian wind assessment for the proposed 23 Elizabeth Street North in Mississauga, Ontario (**Image 1**). Based on our wind-tunnel testing for the proposed project under the Existing and Proposed configurations (**Images 2A and 2B**, respectively) and the local wind records (**Image 3**), the potential wind comfort and safety conditions are predicted as shown on site plans in **Figures 1A** through **3B**, while the associated wind speeds are listed in **Table 1**. These results can be summarized as follows:

- In the Existing configuration, wind conditions on and around the site are generally comfortable for pedestrian use during the summer and winter. Higher wind speeds during the winter create uncomfortable conditions at one location along the sidewalk of Elizabeth Street North.
- With the proposed project in place, wind conditions are expected to remain comfortable for the intended pedestrian use at grade-level areas during the summer. In the winter, several locations around the development and along sidewalks of Park Street East and Elizabeth Street North are expected to experience winds that are uncomfortable for pedestrians.
- Suitable wind conditions are predicted at the building's main entrance throughout the year.
- On the Level 2 outdoor amenity, wind speeds are predicted to be comfortable for passive patron use during the summer, when outdoor spaces are mainly used. Higher wind speeds are expected in the winter.
- In the Existing configuration gust speeds at all assessed locations are expected to meet the annual pedestrian wind safety criterion. After the proposed development is added, wind conditions are predicted to meet the safety criterion at and above grade, except for one location at the northwest corner of the proposed building.

Note that references to wind directions are based on true north, while project north has been considered for references to the project site and buildings.

Also note that after testing we received updated drawings from Kirkor Architects on April 25, 2025. Updates include the tower (atop the 7-storey podium) height increasing from 27 stories to 30 stories. After review of the drawings, it is our opinion that this change would not have a significant impact on the wind conditions and the results of this report are still applicable.

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1 INTRODUCTION

RWDI was retained to conduct a pedestrian wind assessment for the proposed 23 Elizabeth Street North in Mississauga, ON. This report presents the project objectives, background and approach, and discussion of the results from RWDI's assessment and provides conceptual wind control measures, where necessary.

1.1 Project Description

The project (site shown in **Image 1**) is located at the northeast corner of the intersection of Park Street East and Elizabeth Street North in the Port Credit neighbourhood of Mississauga. The proposed project consists of a 27-storey residential tower atop a 7-storey podium with an amenity deck at Level 2.

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 appropriate criteria for gauging wind comfort and safety in pedestrian areas. The assessment focused on critical pedestrian spaces, including main building entrance, public sidewalks and amenity areas around the site and the Level 2 outdoor terrace.

Image 1: Aerial View of 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**), and,

B - Proposed: Proposed project with existing surroundings (**Image 2B**).

The wind tunnel model included all relevant surrounding buildings and topography within an approximately 360m radius of the study site. The proposed trees on site were modelled in their winter conditions (i.e., without leaves). 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 60 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. Wind speeds were measured for 36 directions in a 10-degree increment. 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.

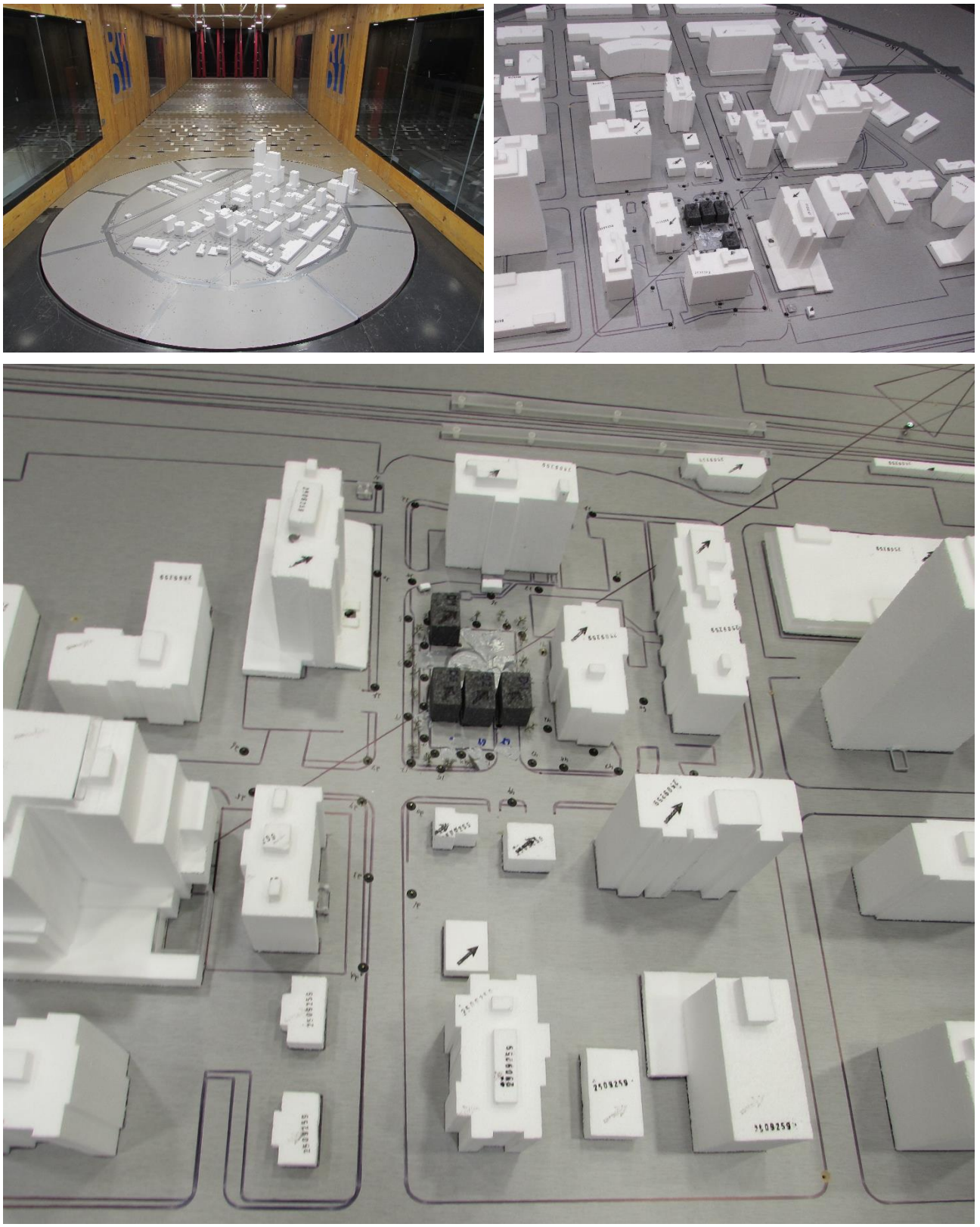

Image 2A: Wind Tunnel Study Model – Existing Configuration

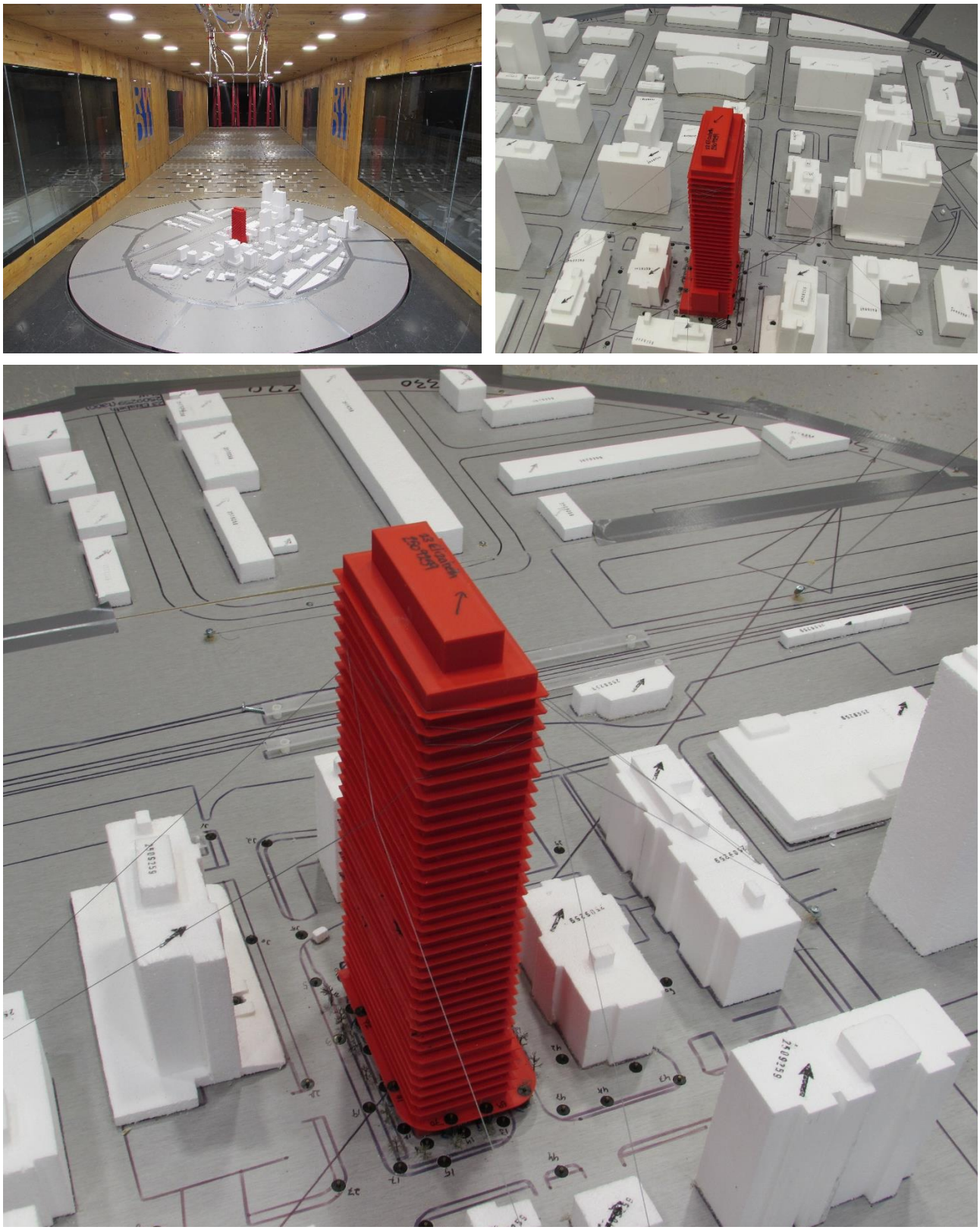

Image 2B: Wind Tunnel Study Model – Proposed Configuration

2.2 Meteorological Data

Wind statistics recorded at Billy Bishop Toronto City Airport between 1994 and 2024, 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, west, northwest, and east directions are predominant during both summer and winter. During the winter season, the prevailing winds from these directions are expected to be stronger, 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 4.6% and 18.1%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 wind criteria for pedestrian comfort and safety.

Wind Speed (km/h)	Probability (%) Summer	Winter
Calm	4.7	2.2
1-10	29.6	16.4
11-20	44.0	37.0
21-30	17.0	26.3
31-40	3.7	12.0
>40	0.9	6.1

Image 3: Directional Distribution of Winds Approaching Billy Bishop Toronto City Airport between 1994 and 2024

2.3 Mississauga Pedestrian Wind Criteria

The Mississauga pedestrian wind criteria, developed in June 2014, are specified in the Urban Design Terms of Reference, "Pedestrian Wind Comfort and Safety Studies". As both mean and gust wind speeds can affect pedestrian comfort, their combined effect is used as the basis of the comfort criteria and defined as a Gust Equivalent Mean (GEM) wind speed. A 20% exceedance is used in these comfort criteria to determine the comfort category, which suggests that wind speeds would be comfortable for the corresponding activity at least 80% of the time or four out of five days.

Only gust winds are considered in the safety criterion. These are usually rare events but deserve special attention in city planning and building design due to their potential impact on pedestrian safety.

The following defines the criteria.

Comfort Category	GEM Speed (km/h)	Description
Sitting	≤ 10	Calm or light breezes desired for outdoor restaurants and seating areas where one can read a paper without having it blown away
Standing	≤ 15	Gentle breezes suitable for main building entrances and bus stops
Walking	≤ 20	Relatively high speeds that can be tolerated if one's objective is to walk, run or cycle without lingering
Uncomfortable	> 20	Strong winds of this magnitude are considered a nuisance for most activities, and wind mitigation is typically recommended
Notes: (1) GEM speed = max (mean speed, gust speed/1.85), (2) GEM speeds listed above are based on a seasonal exceedance of 20% of the time between 6:00 and 23:00.		
Safety Criterion	**Gust Speed (km/h)**	**Description**
Exceeded	> 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 time for 24 hours a day.		

3 RESULTS AND DISCUSSION

The predicted wind conditions are shown on a site plan in Figures 1A through 3B located in the "Figures" section of this report. These conditions and the associated wind speeds are also represented in **Table 1**, located in the "Tables" section of this report.

In general, wind conditions comfortable for strolling or 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 sitting or standing are preferred at building entrances where pedestrians are apt to linger. These low wind speeds are also suitable for areas such as outdoor amenities where passive patron activities are anticipated during the summer. The following is a detailed discussion of the suitability of the predicted wind conditions for the anticipated pedestrian use of each area of interest.

Note that references to wind directions are based on true north, while project north has been considered for references to the project site and buildings.

Also note that after testing we received updated drawings from Kirkor Architects on April 25, 2025. Updates include the tower (atop the 7-storey podium) height increasing from 27 stories to 30 stories. After review of the drawings, it is our opinion that this change would not have a significant impact on the wind conditions and the results of this report are still applicable.

3.1 Existing Configuration

Existing wind speeds on and around the site are comfortable for sitting or standing in the summer (**Figure 1A**) and for standing or walking in the winter (**Figure 2A**), which are considered appropriate for the intended pedestrian usage. Slightly higher wind speeds and uncomfortable conditions occur to the northeast of the site, along the sidewalk of Elizabeth Street North during the winter (see Location 5 in **Figure 2A**).

Wind speeds meet the safety criterion at all areas assessed in the Existing configuration (**Figure 3A**).

3.2 Proposed configuration

3.2.1 Proposed Configuration (Locations 1 to 50)

The proposed project is taller than the existing buildings on and around the site and is expected to redirect winds to the ground level. However, building orientation and design details such as the podium structure and the articulated façade details will help reduce the wind impact of the project. The existing mid-rise buildings around the site also help block the wind flows.

The predicted wind conditions on and around the site are generally comfortable for sitting or standing in the summer with a few areas of walking on the east side of site (**Figure 1B**). Due to seasonally stronger wind speeds in the winter, higher wind activity is generally predicted on and around the site, with conditions mostly comfortable for walking or better (**Figure 2B**). A few areas of uncomfortable conditions are expected along the east side of the building, along Elizabeth Street North, along Park Street East and at the northwest corner of the building during the

winter (See Locations 6, 8, 9, 16, 25, 28, 35 and 44 in **Figure 2B**). Positively, the existing uncomfortable condition predicted on the northeast side of the site, along the sidewalk of Elizabeth Street North improves to be comfortable for walking with the addition of the proposed project during the winter (see Location 5 in **Figure 2B**).

Wind speeds at the main entrance of the building (Location 1 in **Figures 1B and 2B**) are expected to be comfortable for sitting or standing which is suitable for entrance locations.

The amenity areas at grade are located along the north and east sides of the building. Wind conditions along the north amenity space in the summer are predicted to be comfortable for standing which is suitable for pedestrian use. Slightly higher wind speeds with conditions comfortable for walking or better are expected in the east amenity space during the summer. The proposed 1.8m tall privacy fence along the south and east side of site and the landscape buffer is expected to reduce wind speeds in the east amenity space. The proposed deciduous trees along the east façade would further reduce the wind activity in the summer. If desired, coniferous trees along the landscape buffer to the east and south of the building may be considered to further reduce wind speeds as trees that retain their leaves afford their benefit during the colder months.

Wind speeds that meet the safety criterion are predicted at all grade-level locations assessed, except for the northwest corner of the building where the criterion is exceeded (see Location 16 in **Figure 3B**).

It should be noted that the area near the northwest building corner is proposed to be a large planting bed and thus will not see a high-level of pedestrian traffic. RWDI will work with the design team to provide further mitigation features which will be coordinated through the SPA phase.

3.2.2 Level 2 Amenity Terrace (Locations 51 to 60)

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

Wind conditions comfortable for standing are generally predicted on the Level 2 amenity area during the summer which is suitable for passive patron use (**Figure 1B**). During the winter, wind speeds are anticipated to be comfortable for standing or walking (**Figure 2B**). The proposed landscape features on Level 2, including a 2m tall guardrail around the perimeter, trellises and movable planters, which were not included in the wind tunnel testing, are expected to further reduce winds speeds.

Wind speeds that meet the safety criterion are predicated at all locations on the Level 2 amenity terrace (**Figure 3B**).

4 STATEMENT OF LIMITATIONS

Limitations

This report entitled was prepared by Rowan Williams Davies & Irwin, Inc. ("RWDI") for Edenshaw GTA Developments Limited ("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 and used to construct the scale model of the proposed 23 Elizabeth Street North project (**"Project Data**").

File Name	File Type	Date Received (dd/mm/yyyy)
24-113 - 3D Massing	AutoCAD	23/01/2025
A102 - Site Plan	PDF	20/02/2025
421_2025-05-02	PDF	02/05/2025

Drawings received after wind tunnel testing was completed

File Name	File Type	Date Received (dd/mm/yyyy)
24113_23 Elizabeth St.N_Draft Set 2025-04-25	PDF	25/04/2025

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.

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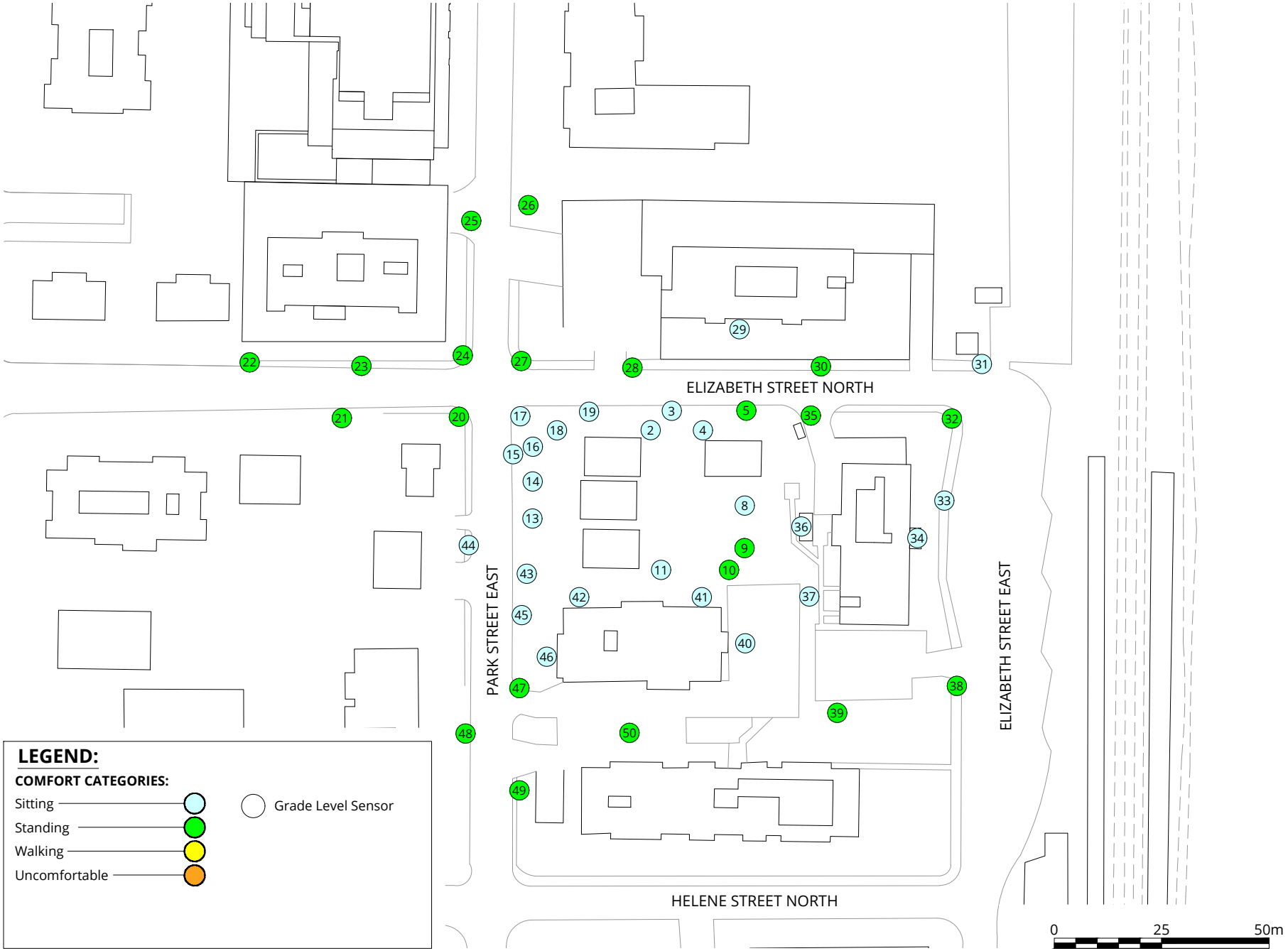
FIGURES



Pedestrian Wind Comfort Conditions

Existing Configuration

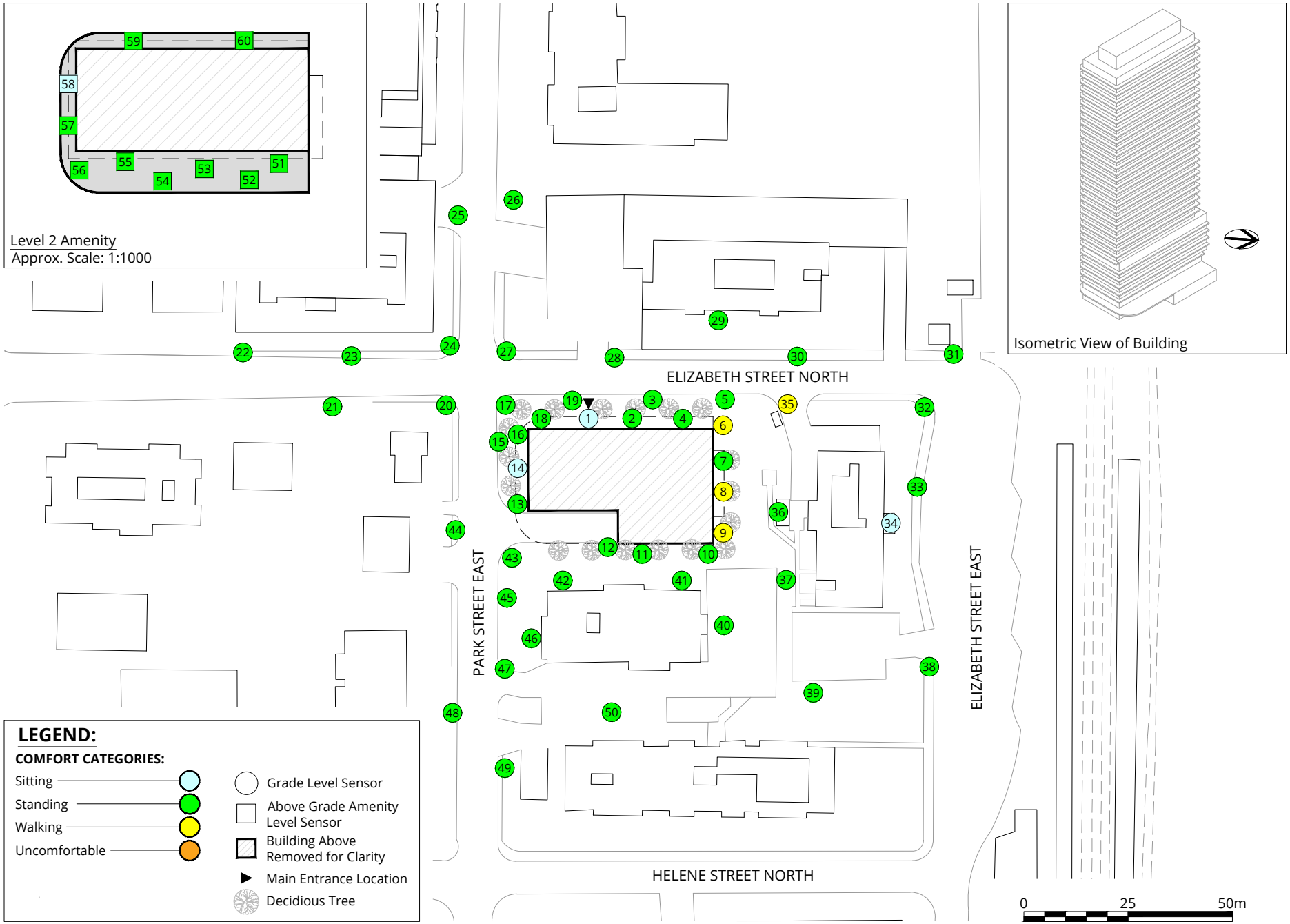
Summer (May to October, 6:00 to 23:00)

23 Elizabeth Street North - Mississauga, ON

Project North True North

Project #2509259

Drawn by: NRA	Figure: 1A
Approx. Scale:	1:1250
Date Revised:	Mar. 21, 2025



Pedestrian Wind Comfort Conditions

Proposed Configuration

Summer (May to October, 6:00 to 23:00)

23 Elizabeth Street North - Mississauga, ON

Project North True North

Project #2509259

Drawn by: NRA	Figure: 1B
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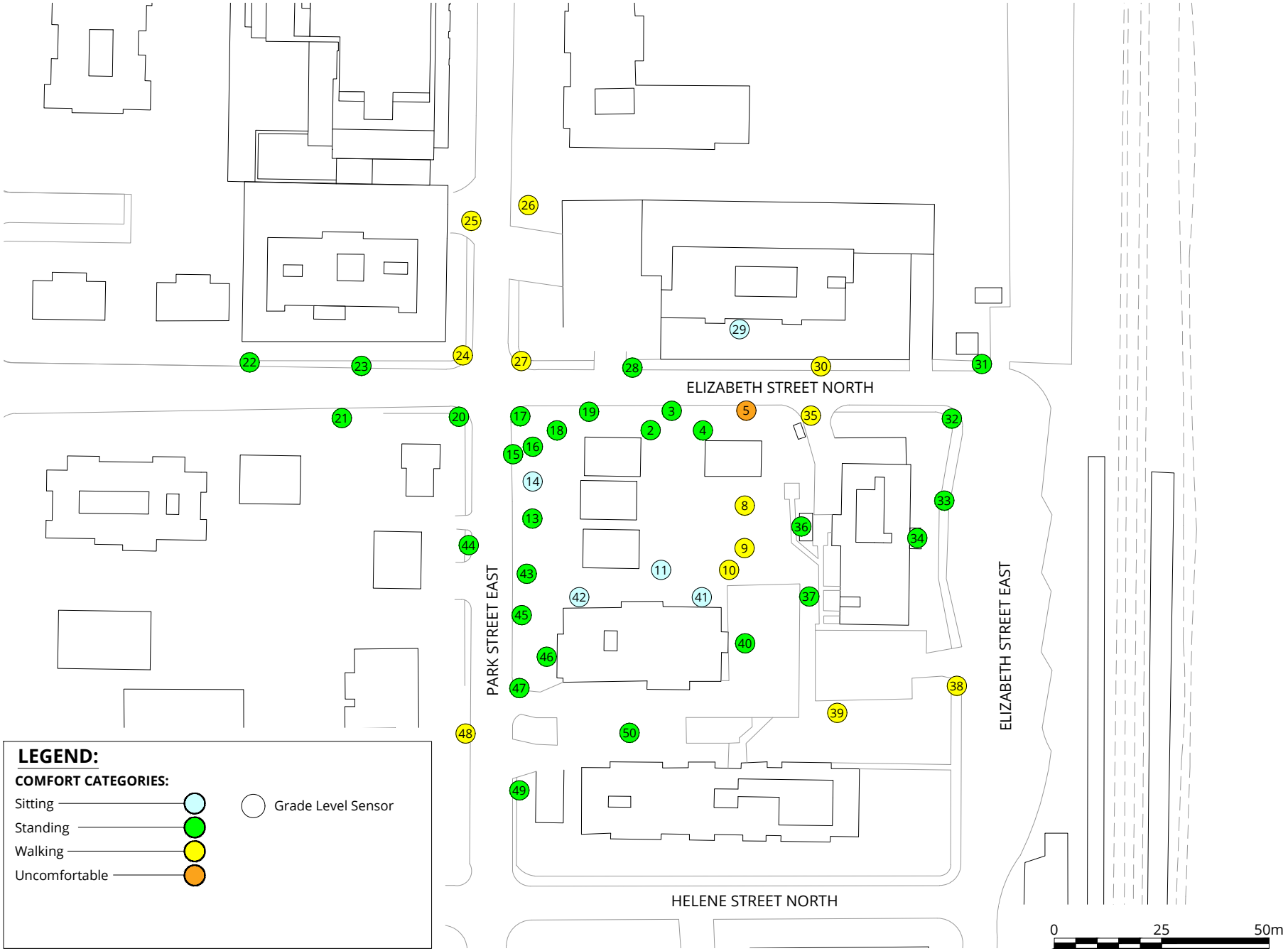

Pedestrian Wind Comfort Conditions

Existing Configuration

Winter (November to April, 6:00 to 23:00)

23 Elizabeth Street North - Mississauga, ON

Project North True North

Project #2509259

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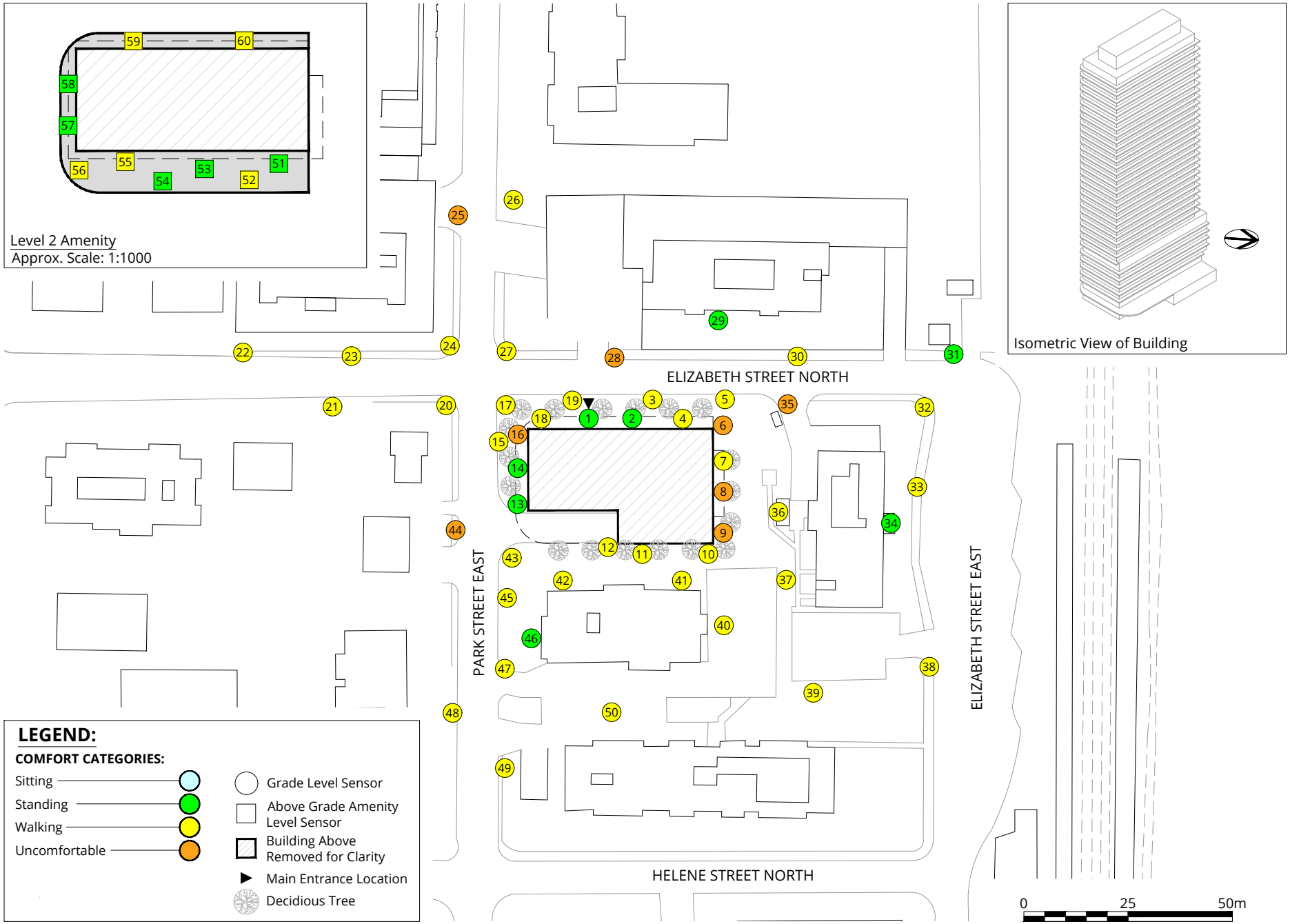
Date Revised:	Mar. 21, 2025



Pedestrian Wind Comfort Conditions

Proposed Configuration

Winter (November to April, 6:00 to 23:00)

23 Elizabeth Street North - Mississauga, ON

Project North True North

Project #2509259

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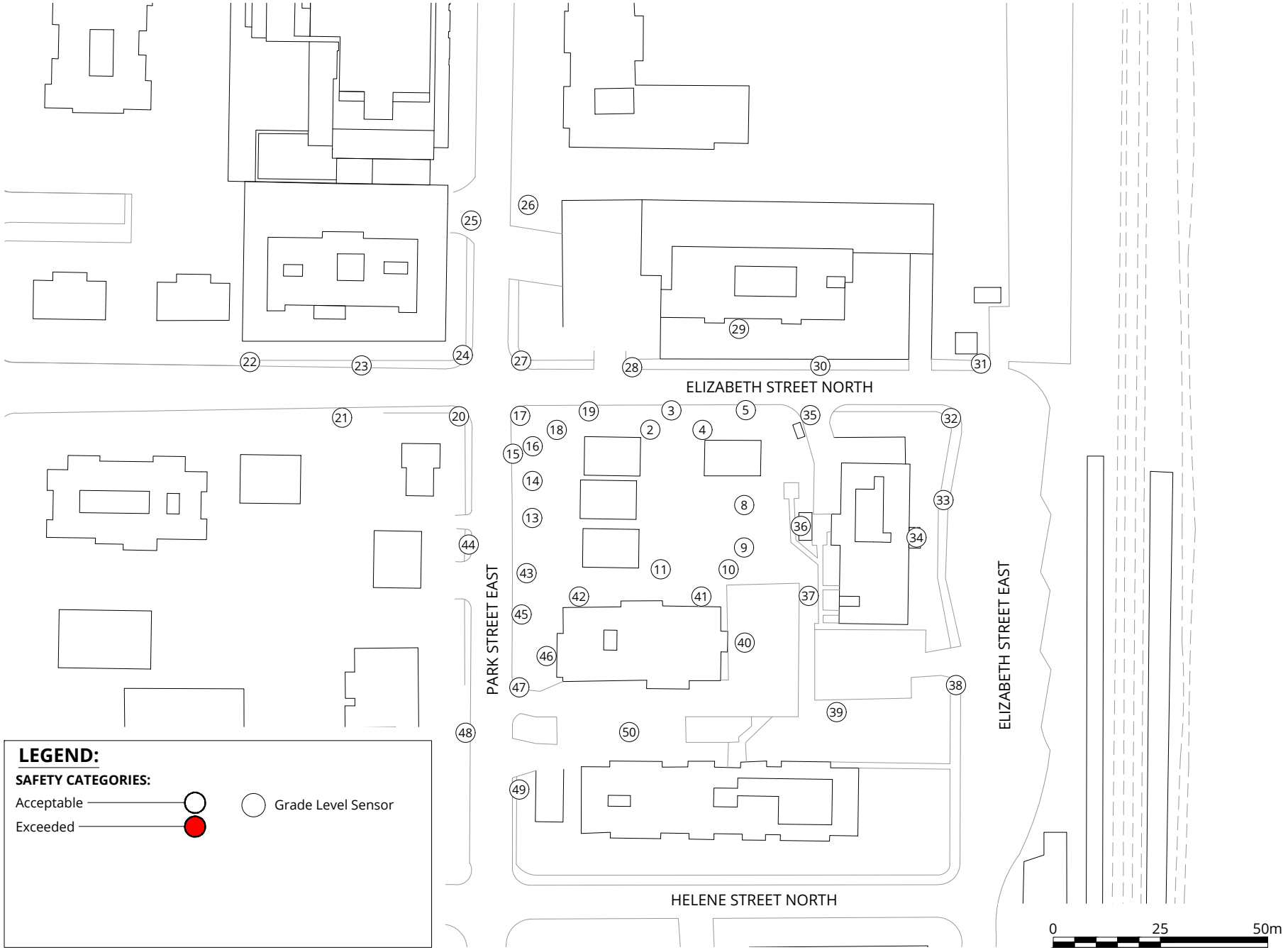

Pedestrian Wind Safety Conditions
Existing Configuration
Annual (January to December, 0:00 to 23:00)

23 Elizabeth Street North - Mississauga, ON

Project North True North

Project #2509259

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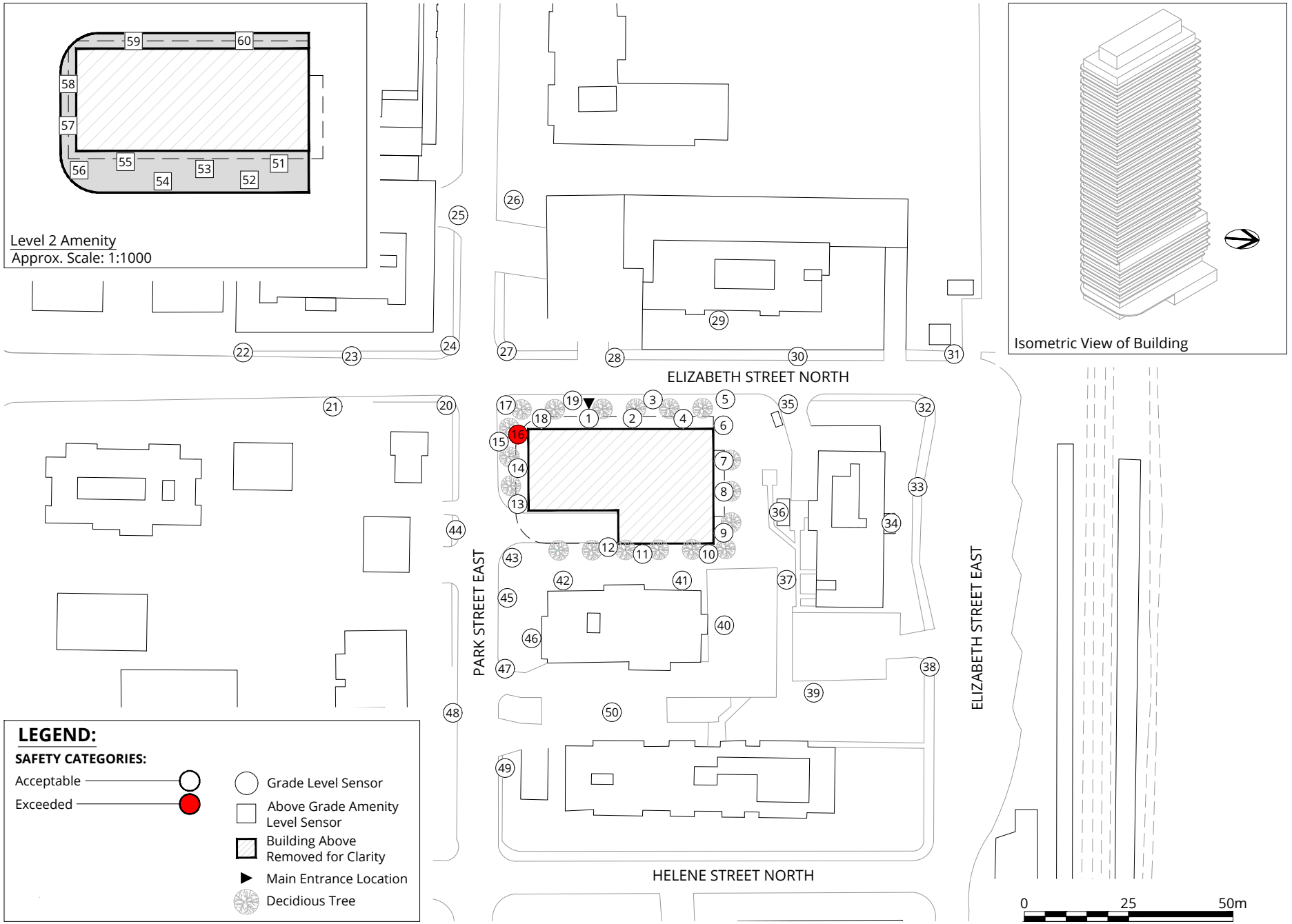
Approx. Scale:	1:1250
Date Revised:	Mar. 21, 2025



Pedestrian Wind Safety Conditions

Proposed Configuration

Annual (January to December, 0:00 to 23:00)

23 Elizabeth Street North - Mississauga, ON

Project North True North

Project #2509259

Drawn by: NRA	Figure: 3B
Approx. Scale:	1:1250
Date Revised:	Mar. 21, 2025

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	-	-	-	-	-	-
	Proposed	10	Sitting	13	Standing	55	Pass
2	Existing	9	Sitting	13	Standing	49	Pass
	Proposed	11	Standing	14	Standing	65	Pass
3	Existing	10	Sitting	14	Standing	52	Pass
	Proposed	12	Standing	16	Walking	63	Pass
4	Existing	9	Sitting	14	Standing	57	Pass
	Proposed	11	Standing	16	Walking	61	Pass
5	Existing	12	Standing	21	Uncomfortable	79	Pass
	Proposed	14	Standing	20	Walking	77	Pass
6	Existing	-	-	-	-	-	-
	Proposed	16	Walking	21	Uncomfortable	89	Pass
7	Existing	-	-	-	-	-	-
	Proposed	14	Standing	17	Walking	75	Pass
8	Existing	10	Sitting	16	Walking	71	Pass
	Proposed	17	Walking	23	Uncomfortable	83	Pass
9	Existing	13	Standing	20	Walking	74	Pass
	Proposed	18	Walking	25	Uncomfortable	87	Pass
10	Existing	13	Standing	19	Walking	68	Pass
	Proposed	12	Standing	20	Walking	83	Pass
11	Existing	7	Sitting	10	Sitting	40	Pass
	Proposed	12	Standing	18	Walking	63	Pass
12	Existing	-	-	-	-	-	-
	Proposed	11	Standing	16	Walking	62	Pass
13	Existing	8	Sitting	11	Standing	41	Pass
	Proposed	11	Standing	14	Standing	53	Pass
14	Existing	7	Sitting	10	Sitting	40	Pass
	Proposed	9	Sitting	13	Standing	66	Pass
15	Existing	8	Sitting	11	Standing	45	Pass
	Proposed	13	Standing	20	Walking	80	Pass
16	Existing	8	Sitting	11	Standing	47	Pass
	Proposed	14	Standing	22	Uncomfortable	100	Exceeded
17	Existing	10	Sitting	14	Standing	55	Pass
	Proposed	13	Standing	19	Walking	66	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
18	Existing	9	Sitting	12	Standing	48	Pass
	Proposed	11	Standing	16	Walking	66	Pass
19	Existing	9	Sitting	13	Standing	48	Pass
	Proposed	13	Standing	16	Walking	66	Pass
20	Existing	11	Standing	15	Standing	61	Pass
	Proposed	13	Standing	19	Walking	79	Pass
21	Existing	12	Standing	15	Standing	57	Pass
	Proposed	12	Standing	18	Walking	78	Pass
22	Existing	12	Standing	14	Standing	53	Pass
	Proposed	12	Standing	16	Walking	60	Pass
23	Existing	12	Standing	15	Standing	62	Pass
	Proposed	13	Standing	20	Walking	86	Pass
24	Existing	13	Standing	19	Walking	72	Pass
	Proposed	14	Standing	20	Walking	77	Pass
25	Existing	14	Standing	20	Walking	83	Pass
	Proposed	14	Standing	21	Uncomfortable	83	Pass
26	Existing	13	Standing	18	Walking	72	Pass
	Proposed	14	Standing	19	Walking	71	Pass
27	Existing	12	Standing	18	Walking	72	Pass
	Proposed	14	Standing	20	Walking	79	Pass
28	Existing	11	Standing	15	Standing	55	Pass
	Proposed	15	Standing	21	Uncomfortable	80	Pass
29	Existing	6	Sitting	9	Sitting	39	Pass
	Proposed	11	Standing	13	Standing	66	Pass
30	Existing	13	Standing	19	Walking	63	Pass
	Proposed	14	Standing	19	Walking	77	Pass
31	Existing	10	Sitting	12	Standing	60	Pass
	Proposed	11	Standing	13	Standing	55	Pass
32	Existing	12	Standing	15	Standing	60	Pass
	Proposed	14	Standing	18	Walking	68	Pass
33	Existing	10	Sitting	15	Standing	55	Pass
	Proposed	12	Standing	16	Walking	61	Pass
34	Existing	9	Sitting	15	Standing	57	Pass
	Proposed	10	Sitting	15	Standing	57	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
35	Existing	14	Standing	20	Walking	67	Pass
	Proposed	16	Walking	21	Uncomfortable	89	Pass
36	Existing	8	Sitting	12	Standing	45	Pass
	Proposed	13	Standing	19	Walking	79	Pass
37	Existing	10	Sitting	13	Standing	51	Pass
	Proposed	13	Standing	16	Walking	64	Pass
38	Existing	11	Standing	16	Walking	62	Pass
	Proposed	12	Standing	18	Walking	67	Pass
39	Existing	13	Standing	18	Walking	72	Pass
	Proposed	14	Standing	19	Walking	68	Pass
40	Existing	10	Sitting	14	Standing	56	Pass
	Proposed	12	Standing	17	Walking	66	Pass
41	Existing	7	Sitting	10	Sitting	39	Pass
	Proposed	13	Standing	20	Walking	75	Pass
42	Existing	7	Sitting	10	Sitting	36	Pass
	Proposed	12	Standing	17	Walking	71	Pass
43	Existing	9	Sitting	13	Standing	50	Pass
	Proposed	13	Standing	19	Walking	80	Pass
44	Existing	9	Sitting	13	Standing	57	Pass
	Proposed	13	Standing	21	Uncomfortable	90	Pass
45	Existing	10	Sitting	14	Standing	59	Pass
	Proposed	12	Standing	19	Walking	81	Pass
46	Existing	10	Sitting	12	Standing	55	Pass
	Proposed	11	Standing	15	Standing	59	Pass
47	Existing	11	Standing	15	Standing	64	Pass
	Proposed	12	Standing	18	Walking	77	Pass
48	Existing	12	Standing	17	Walking	69	Pass
	Proposed	13	Standing	18	Walking	71	Pass
49	Existing	12	Standing	15	Standing	63	Pass
	Proposed	12	Standing	17	Walking	59	Pass
50	Existing	11	Standing	15	Standing	58	Pass
	Proposed	14	Standing	20	Walking	72	Pass
51	Existing	-	-	-	-	-	-
	Proposed	12	Standing	15	Standing	61	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
52	Existing	-	-	-	-	-	-
	Proposed	12	Standing	16	Walking	63	Pass
53	Existing	-	-	-	-	-	-
	Proposed	11	Standing	15	Standing	58	Pass
54	Existing	-	-	-	-	-	-
	Proposed	12	Standing	15	Standing	55	Pass
55	Existing	-	-	-	-	-	-
	Proposed	12	Standing	16	Walking	59	Pass
56	Existing	-	-	-	-	-	-
	Proposed	14	Standing	18	Walking	64	Pass
57	Existing	-	-	-	-	-	-
	Proposed	11	Standing	15	Standing	59	Pass
58	Existing	-	-	-	-	-	-
	Proposed	10	Sitting	14	Standing	54	Pass
59	Existing	-	-	-	-	-	-
	Proposed	12	Standing	18	Walking	65	Pass
60	Existing	-	-	-	-	-	-
	Proposed	13	Standing	19	Walking	70	Pass

Season	Months	Hours
Summer	May - October	6:00 - 23:00 for comfort
Winter	November - April	6:00 - 23:00 for comfort
Annual	January - December	0:00 - 23:00 for safety

Configurations	
Existing	Existing site and surroundings
Proposed	Project with existing surroundings

Comfort Speed (km/h)	
(20% Seasonal Exceedance)	
≤ 10	Sitting
11 - 15	Standing
16 - 20	Walking
> 20	Uncomfortable

Safety Speed (km/h)	
(0.1% Annual Exceedance)	
≤ 90	Pass
> 90	Exceeded