REPORT

49 SOUTH SERVICE ROAD

MISSISSAUGA, ONTARIO

PEDESTRIAN WIND STUDY
RWDI #2205797
October 13, 2022

SUBMITTED TO

Roman Tsap
Development Manager
roman.tsap@edenshaw.com
M: 905.334.9652

Edenshaw SSR Developments Limited
201-129 Lakeshore Road East
Mississauga, Ontario, L5G 1E5
T: 647.977.9168

SUBMITTED BY

Henrique D.L. Gambassi, B.Sc., EIT
Technical Coordinator
henrique.delimagambassi@rwdi.com

Rose Babaei, Ph.D.
Senior Technical Coordinator
rose.babaei@rwdi.com

Jordan Gilmour, P.Eng
Senior Project Manager
jordan.gilmour@rwdi.com

RWDI
600 Southgate Drive
Guelph, Ontario, Canada N1G 4P6
T: 519.823.1311

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EXECUTIVE SUMMARY

RWDI was retained to conduct a pedestrian wind assessment for the proposed development at 49 South Service Road, in Mississauga, ON. The assessment was based on the wind-tunnel testing conducted for the proposed development site under the Existing and Proposed configurations of the site and surroundings. The results were analysed 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 3B, and Table 1, and are summarized as follows:

- Wind speeds on and around the existing site are considered suitable for the level of pedestrian activity in the area throughout the year. No exceedance of the wind safety criterion occurs in the Existing configuration.

- With the addition of the proposed development, wind conditions at grade level are expected to be comfortable for standing or walking at most locations during the summer.

- In the winter, several locations with uncomfortable wind conditions are expected near exposed building corners, to the north and south of the site and along the sidewalks of South Service Road. The wind safety criterion is expected to be exceeded at similar number of locations both on and off site.

- Suitable wind conditions are predicted at the main building entrance throughout the year.

- Wind conditions on the podium are expected to be comfortable for sitting or standing during the summer, when it is expected to be used the most.

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1 INTRODUCTION

RWDI was retained to conduct a pedestrian wind assessment for the proposed 49 South Service Road project in Mississauga, ON. 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 project site is located on the north side of the intersection between Hurontario Street and South Service Road (Image 1). The proposed development will consist of a 26-storey residential apartment building with a 4-storey podium structure.

1.2 Project 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 the main building entrance, public sidewalks and the Level 5 amenity terrace.

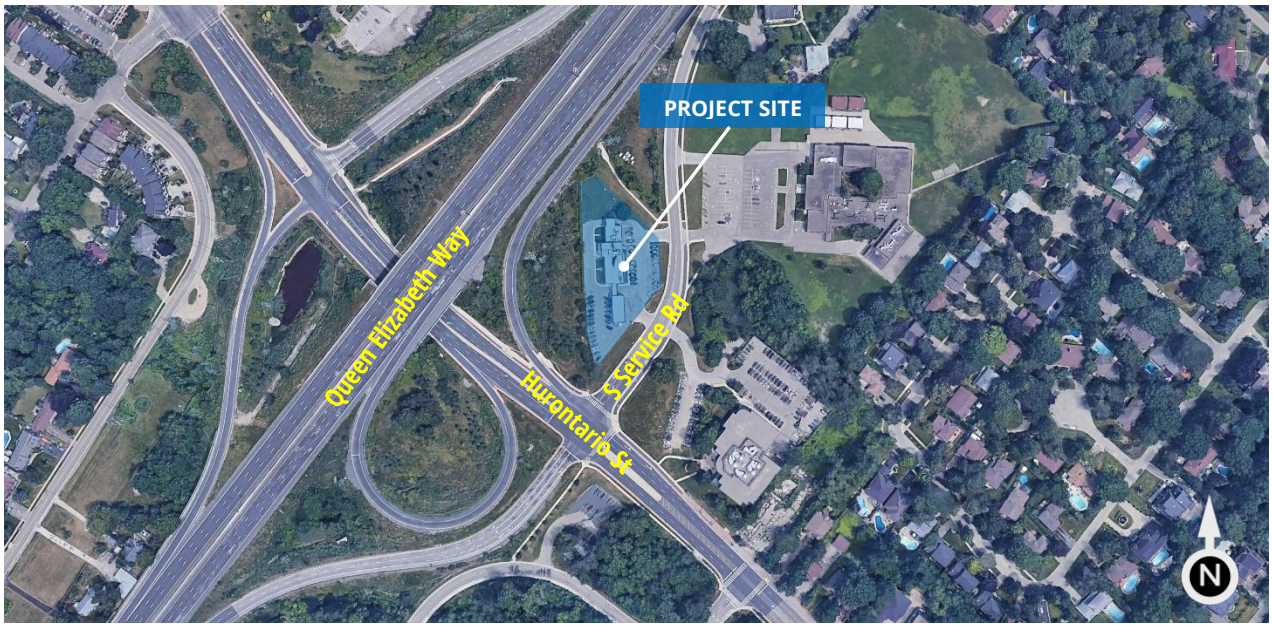


Image 1: Aerial View of Site and Surroundings (Photo Courtesy of Google™ Earth)

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 approximate 450 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 55 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 and reviewed by the design team. 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.

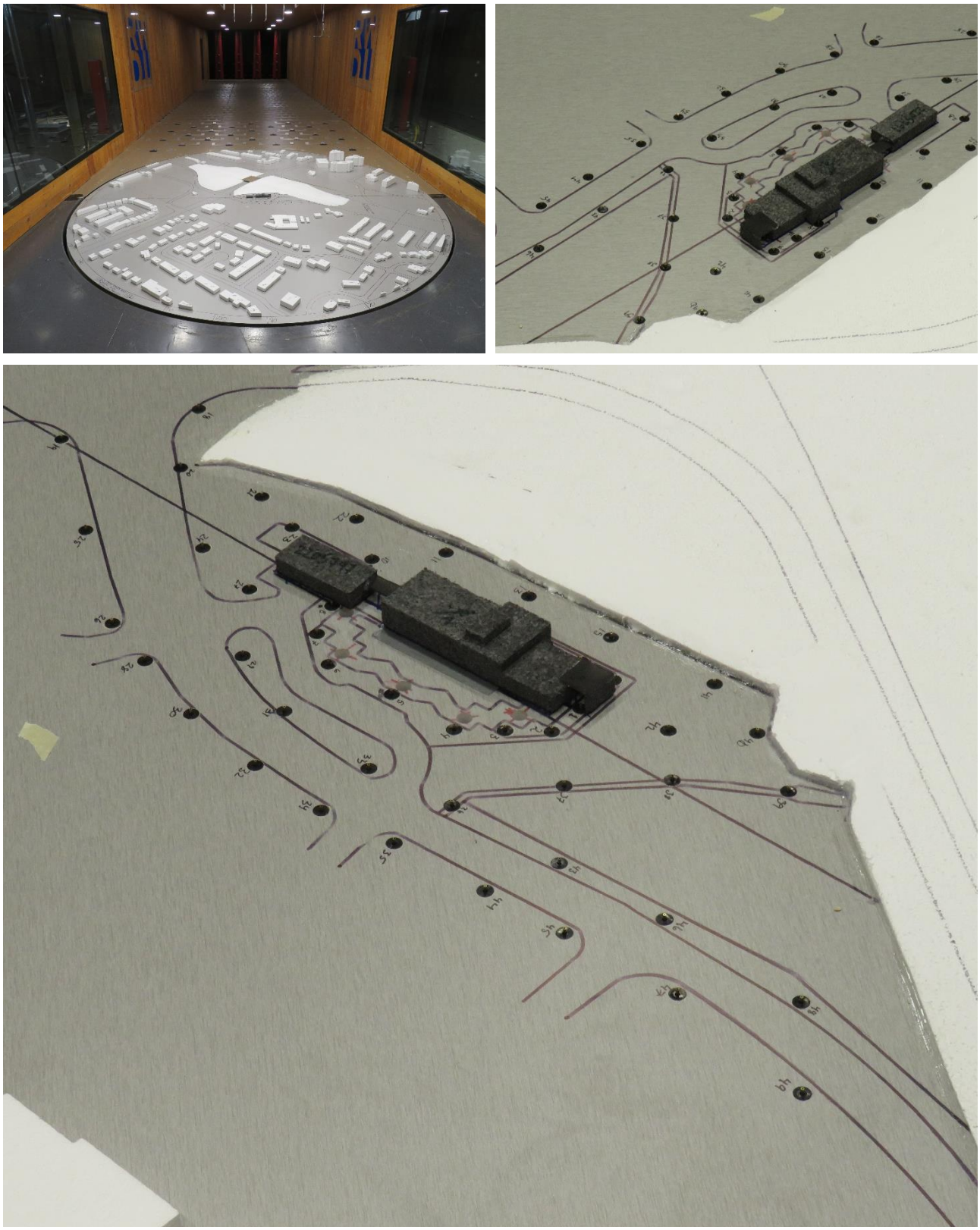
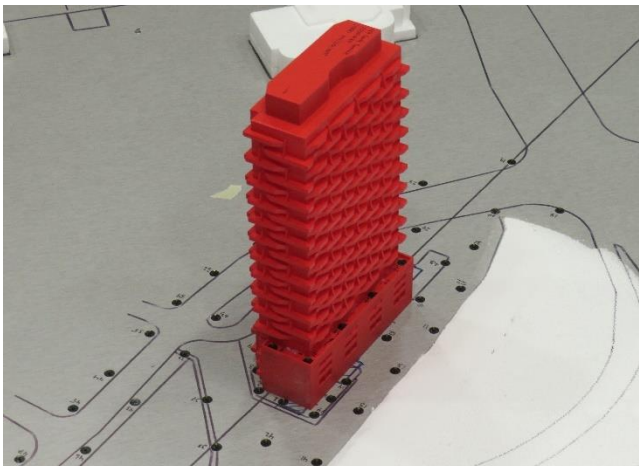


Image 2A: Wind Tunnel Study Model – Existing Configuration



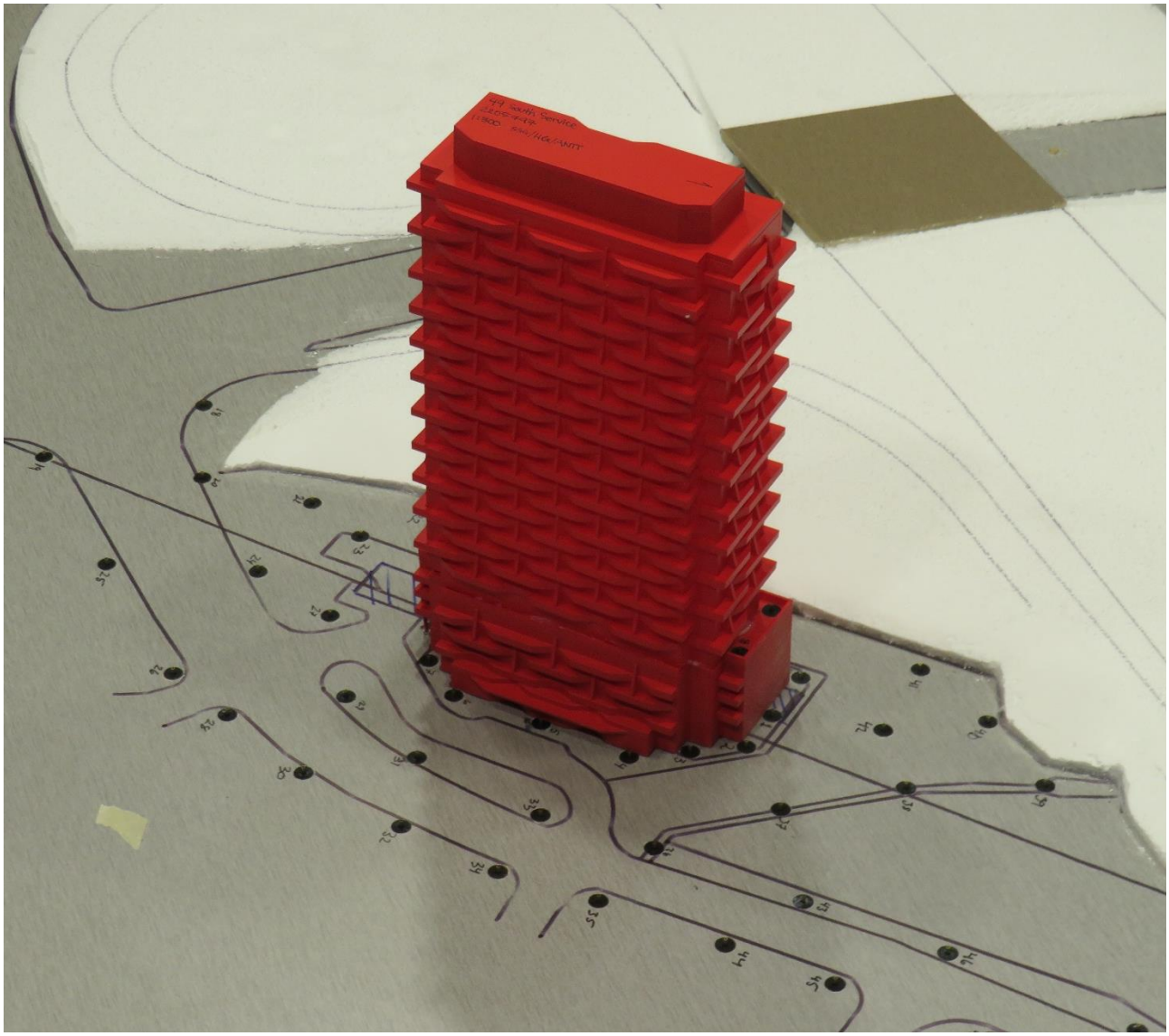
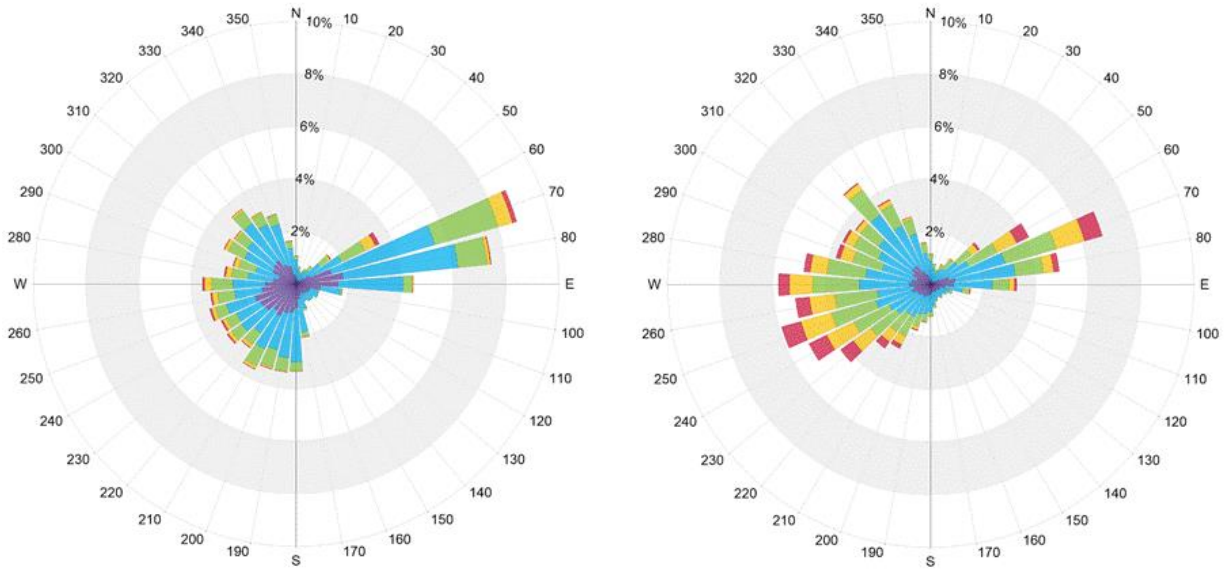


Image 2B: Wind Tunnel Study Model – Proposed Configuration

2.2 Wind Climate Data

Wind statistics recorded at Billy Bishop Toronto City Airport between 1990 and 2020, 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 northwest and from the east-northeast directions are predominant during both the summer and winter seasons, 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 4.3% and 17.2% 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	5.6	2.6
1-10	30.4	17.1
11-20	43.3	37.8
21-30	16.3	25.3
31-40	3.4	11.4
>40	0.9	5.8

Image 3: Directional Distribution of Winds Approaching Billy Bishop Toronto City Airport between 1990 and 2020

2.3 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". The following defines the criterion in detail.

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

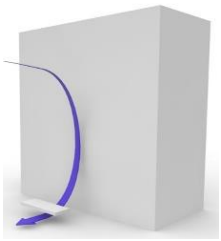
Notes:
(1) GEM speed = max (mean speed, gust speed/1.85) and Gust Speed = Mean Speed + 3*RMS Speed
(2) GEM speeds listed above are based on a seasonal exceedance of 20% of the time between 6:00 and 23:00.

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.

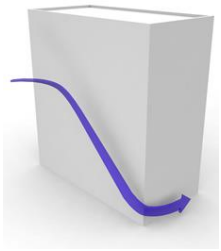
2.4 General Wind Flow Mechanisms

In our discussion of wind conditions, reference may be made to the following generalized wind flows (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 winds approach at an oblique angle to a tall façade and are deflected down, a localized increase in the wind activity or corner acceleration can be expected around the exposed building corners at pedestrian level.

Image 4: Generalized Wind Flows

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 low 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)

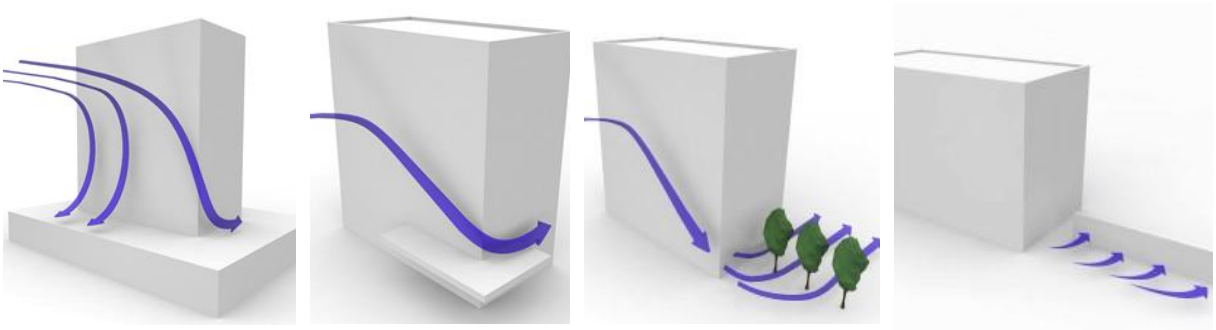


Image 5: Common Wind Control Measures

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.

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 where pedestrians are apt to linger. For outdoor amenity areas, wind speeds conducive to sitting are desired during the summer season. 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 Existing Configuration

Wind speeds on and around the existing site are comfortable for sitting or standing during the summer (Figure 1A) and for standing or walking during the winter (Figure 2A). These wind conditions are appropriate for the intended use of pedestrian areas.

The wind safety criterion is met at all areas assessed on and around the existing site (Figure 3A).

3.2 Proposed Configuration

3.2.1 Grade Level (Locations 1 through 49)

The proposed project is significantly taller than its surroundings and has a broad façade exposed to the prevailing winds. Thus, with the addition of the proposed project to the site, westerly and east-northeasterly winds are expected to be redirected to the ground level and create high wind activity around the site (see Image 4).

During the summer, wind speeds are expected to be comfortable for sitting or standing at most areas along the building perimeter, including the main lobby entrance on the east façade (Location 5 in Figure 1B). Wind conditions at the northeast, northwest and southwest building corners and on the sidewalks further away from the building are expected to be comfortable for standing or walking, which is suitable for the intended use (Figure 1B).

In the winter, due to seasonally stronger winds, higher wind speeds and uncomfortable conditions are predicted at the northeast, northwest and southwest building corners, and at several locations along the surrounding sidewalks and walkways (Figure 2B). Note that lower wind speeds, comfortable for standing or walking are expected at most areas around the building perimeter, with conditions remaining suitable for the intended use at the main lobby entrance (Location 5 in Figure 2B).

The wind safety criterion is expected to be exceeded near the northern building corners, and at multiple locations along the sidewalks of South Service Road and to the north and south of the site (Figure 3B).

Use of wind screens and landscaping at the building corners and along the sidewalks of South Service Road can help diffuse the energy of accelerating winds and improve local wind conditions. It should be noted that the effectiveness of trees as wind control measures is highly dependent on their volume, foliage density, and species.

Note that only coniferous or marcescent trees would be effective during the winter season when winds are the strongest. In addition, changes to the massing of the building can assist in mitigating the wind conditions. The effectiveness of such mitigation can be investigated through further consultation and testing.

Examples of the use of such features for wind mitigation are shown in Image 6.

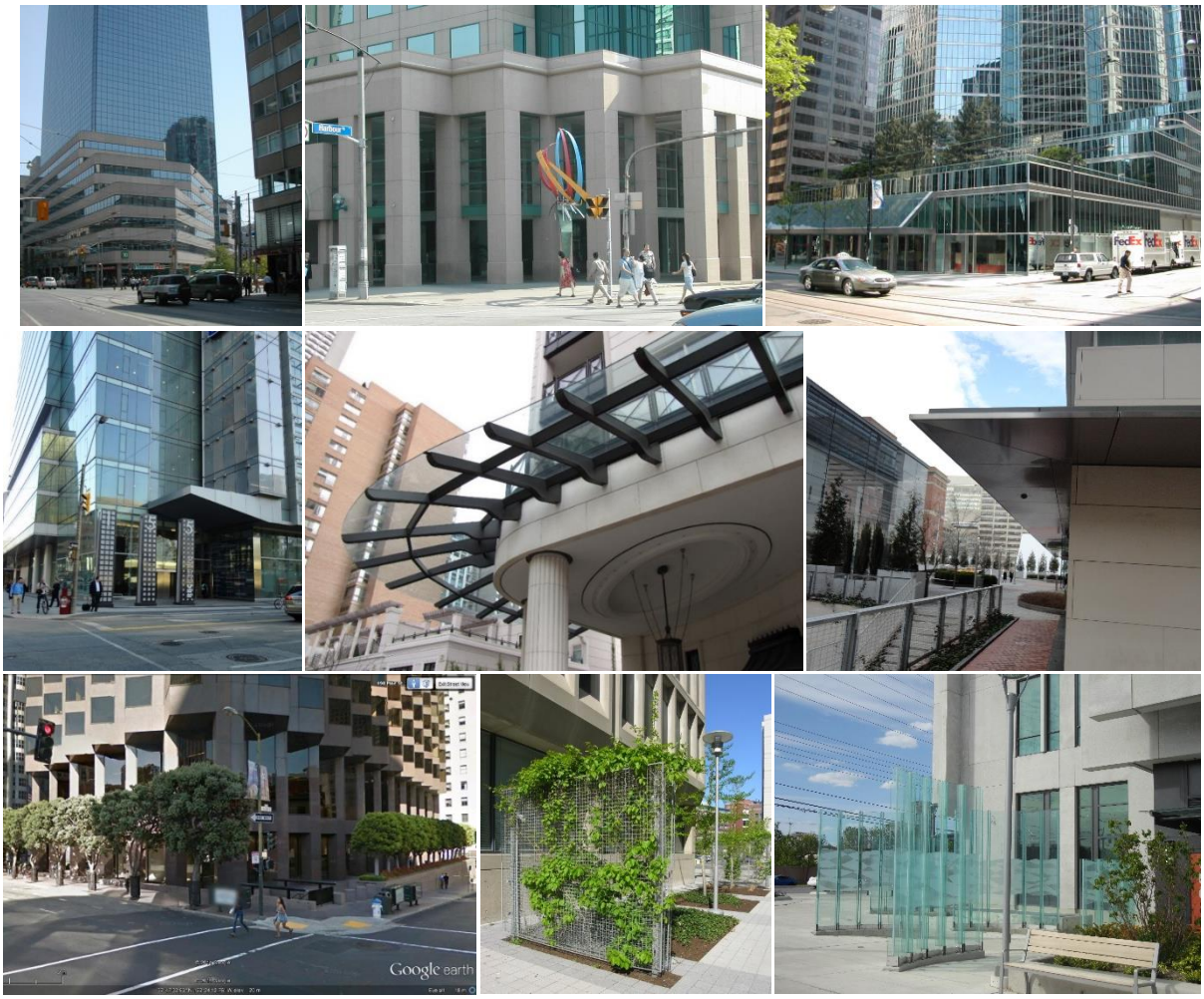


Image 6: Examples of Wind Control Strategies Including Massing Changes, Canopies and Hardscaping/Landscaping

3.2.2 Level 5 Amenity Terrace (Locations 50 through 55)

Wind speeds on the Level 5 terrace (Locations 50 through 55) are predicted to be comfortable for sitting or standing during the summer (Figure 1B). In the winter, increased wind speeds are expected on the terrace, with uncomfortable wind conditions at the northwest corner and on the south part (Locations 50 and 54 in Figure 2B), however, this may not be a serious concern as reduced access to this area is expected during the colder times of the year. The pedestrian wind safety criterion is expected to be met at all terrace areas (Figure 3B).

To improve wind comfort conditions during the summer, planters, screens/partitions and trellises can be considered around the designated seating and gathering areas to create low-wind zones. Examples are shown in Image 7.

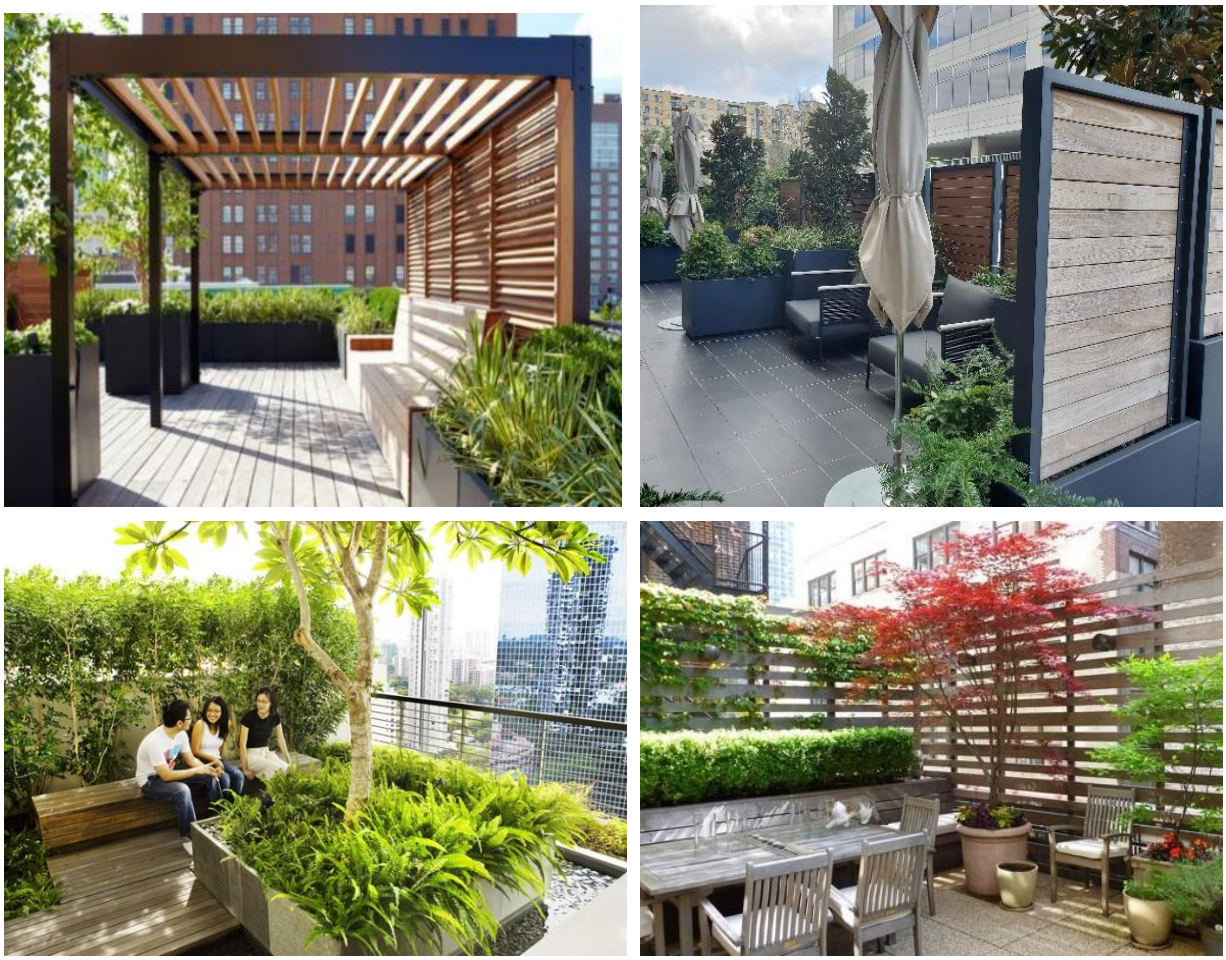


Image 7: Examples of Wind Control Solutions Applicable to the Level 5 Terrace

4 STATEMENT OF LIMITATIONS

Limitations

This report was prepared by Rowan Williams Davies & Irwin, Inc. ("RWDI") for Edenshaw SSR 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 from Edenshaw SSR Developments Limited and used to construct the scale model of the proposed development (**"Project Data**")

File Name	File Type	Date Received (dd/mm/yyyy)
22073P011_Edenshaw-49 South Service Rd_3D View	.DWG	14/9/2022
22073-Edenshaw-49 South Service Rd-Plans -August 29,2022	.PDF	30/8/2022

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 up on 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

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FIGURES

QUEEN ELIZABETH WAY

HURONTARIO STREET

SOUTH SERVICE ROAD

LEGEND:

COMFORT CATEGORIES:
- Sitting
- Standing
- Walking
- Uncomfortable

SENSOR LOCATION:
- Grade Level

0 10 25m

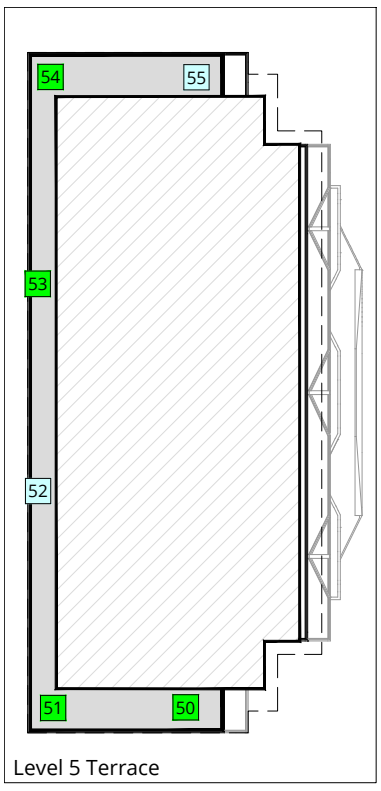
Pedestrian Wind Comfort Conditions
Existing Configuration
Summer (May to October, 6:00 to 23:00)

49 South Service Road - Mississauga, ON

Project #2205797

True North

Drawn by: ALJM	Figure: 1A
Approx. Scale:	1:600
Date Revised:	Oct. 4, 2022



Level 5 Terrace

QUEEN ELIZABETH WAY

HURONTARIO STREET

SOUTH SERVICE ROAD

LEGEND:

COMFORT CATEGORIES:
- Sitting
- Standing
- Walking
- Uncomfortable

SENSOR LOCATION:
- Grade Level
- Terrace Level
- Building Above Removed for Clarity
- Main Entrance Location

0 10 25m

Pedestrian Wind Comfort Conditions

Proposed Configuration

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

49 South Service Road - Mississauga, ON

True North

Project #2205797

Drawn by: ALJM	Figure: 1B
Approx. Scale:	1:600
Date Revised:	Oct. 4, 2022

QUEEN ELIZABETH WAY

HURONTARIO STREET

SOUTH SERVICE ROAD

LEGEND:

COMFORT CATEGORIES:
- Sitting
- Standing
- Walking
- Uncomfortable

SENSOR LOCATION:
- Grade Level

0 10 25m

Pedestrian Wind Comfort Conditions
Existing Configuration
Winter (November to April, 6:00 to 23:00)

49 South Service Road - Mississauga, ON

True North

Project #2205797

Drawn by: ALJM	Figure: 2A
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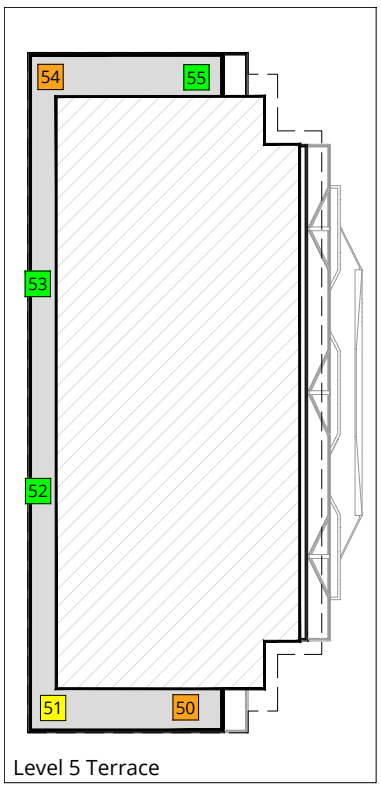
Date Revised:	Oct. 4, 2022



QUEEN ELIZABETH WAY

HURONTARIO STREET

SOUTH SERVICE ROAD

LEGEND:

COMFORT CATEGORIES:
- Sitting
- Standing
- Walking
- Uncomfortable

SENSOR LOCATION:
- Grade Level
- Terrace Level
- Building Above Removed for Clarity
- Main Entrance Location

0 10 25m

Pedestrian Wind Comfort Conditions
Proposed Configuration
Winter (November to April, 6:00 to 23:00)

49 South Service Road - Mississauga, ON

True North

Project #2205797

Drawn by: ALJM	Figure: 2B
Approx. Scale:	1:600
Date Revised:	Oct. 4, 2022

QUEEN ELIZABETH WAY

HURONTARIO STREET

SOUTH SERVICE ROAD

LEGEND:

SAFETY CATEGORIES:

Pass

Exceeded

SENSOR LOCATION:

Grade Level

0 10 25m

Pedestrian Wind Safety Conditions

Existing Configuration

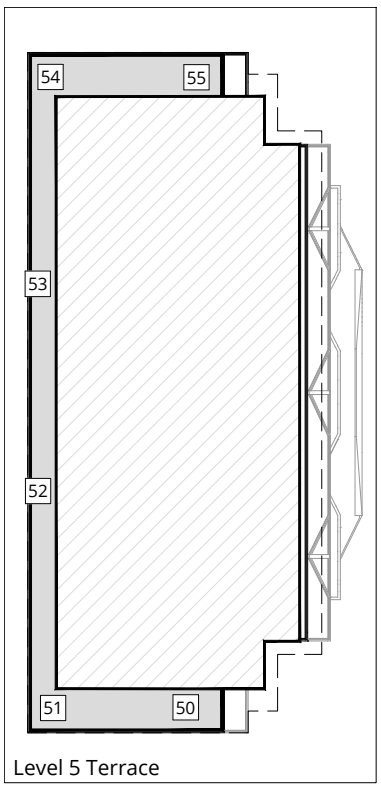
Annual (January to December, 0:00 to 23:00)

49 South Service Road - Mississauga, ON

Project #2205797

True North

Drawn by: ALJM	Figure: 3A
Approx. Scale:	1:600
Date Revised:	Oct. 4, 2022



Level 5 Terrace

QUEEN ELIZABETH WAY

HURONTARIO STREET

SOUTH SERVICE ROAD

LEGEND:

SAFETY CATEGORIES:
- Pass
- Exceeded

SENSOR LOCATION:
- Grade Level
- Terrace Level
- Building Above Removed for Clarity
- Main Entrance Location

0 10 25m

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

49 South Service Road - Mississauga, ON

Project #2205797

True North

Drawn by: ALJM	Figure: 3B
Approx. Scale:	1:600
Date Revised:	Oct. 4, 2022

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	13	Standing	17	Walking	63	Pass
	Proposed	8	Sitting	12	Standing	56	Pass
2	Existing	12	Standing	15	Standing	54	Pass
	Proposed	19	Walking	23	Uncomfortable	98	Exceeded
3	Existing	11	Standing	13	Standing	50	Pass
	Proposed	12	Standing	14	Standing	67	Pass
4	Existing	11	Standing	14	Standing	50	Pass
	Proposed	12	Standing	14	Standing	64	Pass
5	Existing	10	Sitting	13	Standing	50	Pass
	Proposed	10	Sitting	13	Standing	54	Pass
6	Existing	11	Standing	14	Standing	50	Pass
	Proposed	14	Standing	17	Walking	87	Pass
7	Existing	10	Sitting	12	Standing	45	Pass
	Proposed	15	Standing	20	Walking	82	Pass
8	Existing	-	-	-	-	-	-
	Proposed	14	Standing	18	Walking	80	Pass
9	Existing	-	-	-	-	-	-
	Proposed	8	Sitting	11	Standing	49	Pass
10	Existing	9	Sitting	12	Standing	47	Pass
	Proposed	17	Walking	25	Uncomfortable	89	Pass
11	Existing	9	Sitting	11	Standing	50	Pass
	Proposed	14	Standing	20	Walking	71	Pass
12	Existing	10	Sitting	13	Standing	51	Pass
	Proposed	11	Standing	13	Standing	58	Pass
13	Existing	11	Standing	14	Standing	55	Pass
	Proposed	14	Standing	18	Walking	63	Pass
14	Existing	-	-	-	-	-	-
	Proposed	10	Sitting	14	Standing	59	Pass
15	Existing	9	Sitting	12	Standing	46	Pass
	Proposed	16	Walking	23	Uncomfortable	75	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
16	Existing	10	Sitting	13	Standing	51	Pass
	Proposed	11	Standing	15	Standing	64	Pass
17	Existing	10	Sitting	14	Standing	56	Pass
	Proposed	18	Walking	27	Uncomfortable	96	Exceeded
18	Existing	13	Standing	18	Walking	59	Pass
	Proposed	14	Standing	19	Walking	69	Pass
19	Existing	13	Standing	18	Walking	60	Pass
	Proposed	15	Standing	20	Walking	67	Pass
20	Existing	13	Standing	16	Walking	59	Pass
	Proposed	15	Standing	20	Walking	80	Pass
21	Existing	11	Standing	14	Standing	47	Pass
	Proposed	16	Walking	22	Uncomfortable	78	Pass
22	Existing	9	Sitting	11	Standing	42	Pass
	Proposed	18	Walking	26	Uncomfortable	90	Pass
23	Existing	10	Sitting	13	Standing	46	Pass
	Proposed	20	Walking	27	Uncomfortable	94	Exceeded
24	Existing	12	Standing	17	Walking	58	Pass
	Proposed	19	Walking	27	Uncomfortable	91	Exceeded
25	Existing	13	Standing	18	Walking	59	Pass
	Proposed	16	Walking	23	Uncomfortable	81	Pass
26	Existing	13	Standing	18	Walking	58	Pass
	Proposed	16	Walking	25	Uncomfortable	92	Exceeded
27	Existing	12	Standing	16	Walking	59	Pass
	Proposed	19	Walking	28	Uncomfortable	95	Exceeded
28	Existing	13	Standing	18	Walking	59	Pass
	Proposed	16	Walking	24	Uncomfortable	87	Pass
29	Existing	12	Standing	16	Walking	54	Pass
	Proposed	18	Walking	26	Uncomfortable	98	Exceeded
30	Existing	13	Standing	18	Walking	58	Pass
	Proposed	17	Walking	25	Uncomfortable	97	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
31	Existing	12	Standing	16	Walking	54	Pass
	Proposed	18	Walking	24	Uncomfortable	92	Exceeded
32	Existing	13	Standing	17	Walking	58	Pass
	Proposed	17	Walking	23	Uncomfortable	94	Exceeded
33	Existing	12	Standing	16	Walking	56	Pass
	Proposed	17	Walking	22	Uncomfortable	82	Pass
34	Existing	13	Standing	17	Walking	57	Pass
	Proposed	16	Walking	22	Uncomfortable	88	Pass
35	Existing	13	Standing	17	Walking	57	Pass
	Proposed	15	Standing	22	Uncomfortable	87	Pass
36	Existing	13	Standing	17	Walking	57	Pass
	Proposed	16	Walking	23	Uncomfortable	91	Exceeded
37	Existing	13	Standing	17	Walking	56	Pass
	Proposed	17	Walking	24	Uncomfortable	91	Exceeded
38	Existing	12	Standing	17	Walking	55	Pass
	Proposed	16	Walking	26	Uncomfortable	98	Exceeded
39	Existing	10	Sitting	12	Standing	46	Pass
	Proposed	12	Standing	18	Walking	81	Pass
40	Existing	9	Sitting	12	Standing	49	Pass
	Proposed	14	Standing	22	Uncomfortable	78	Pass
41	Existing	8	Sitting	10	Sitting	41	Pass
	Proposed	14	Standing	21	Uncomfortable	75	Pass
42	Existing	11	Standing	16	Walking	55	Pass
	Proposed	19	Walking	28	Uncomfortable	93	Exceeded
43	Existing	13	Standing	17	Walking	57	Pass
	Proposed	14	Standing	22	Uncomfortable	93	Exceeded
44	Existing	13	Standing	18	Walking	59	Pass
	Proposed	15	Standing	22	Uncomfortable	92	Exceeded
45	Existing	13	Standing	18	Walking	60	Pass
	Proposed	14	Standing	21	Uncomfortable	95	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
46	Existing	13	Standing	18	Walking	60	Pass
	Proposed	14	Standing	22	Uncomfortable	98	Exceeded
47	Existing	13	Standing	18	Walking	60	Pass
	Proposed	13	Standing	20	Walking	88	Pass
48	Existing	13	Standing	17	Walking	57	Pass
	Proposed	13	Standing	20	Walking	87	Pass
49	Existing	13	Standing	18	Walking	59	Pass
	Proposed	13	Standing	20	Walking	81	Pass
50	Existing	-	-	-	-	-	-
	Proposed	14	Standing	24	Uncomfortable	84	Pass
51	Existing	-	-	-	-	-	-
	Proposed	13	Standing	19	Walking	77	Pass
52	Existing	-	-	-	-	-	-
	Proposed	10	Sitting	14	Standing	64	Pass
53	Existing	-	-	-	-	-	-
	Proposed	11	Standing	15	Standing	59	Pass
54	Existing	-	-	-	-	-	-
	Proposed	15	Standing	25	Uncomfortable	87	Pass
55	Existing	-	-	-	-	-	-
	Proposed	10	Sitting	14	Standing	61	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