REPORT

10 DANGAR ST

WICKHAM, NSW

PEDESTRIAN WIND STUDY
RWDI # 2512651
31 March 2026

SUBMITTED TO

Urban Property Group
Suite 110, Level 1,
180-186 Burwood Road
Rosebery, NSW 2018

SUBMITTED BY

RWDI Australia Pty Ltd
Level 7, 260 Queen Street,
Brisbane, QLD 4000
ABN 86 641 303 871

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EXECUTIVE SUMMARY

RWDI Australia Pty Ltd (RWDI) was engaged by UPG Wickham Pty. Ltd. to carry out a pedestrian wind assessment for the Proposed Development located at 10 Dangar St, Wickham, NSW. The pedestrian-level wind tunnel microclimate assessment was conducted for the following configurations of the site:

Existing Configuration:	Existing Site with Existing Surrounding Buildings
Proposed Configuration:	Proposed Development with Existing Surrounding Buildings
Future Configuration:	Proposed Development with Existing & Future Surrounding Buildings

The Future Configuration noted above has been included to address the requirement for a **Cumulative Impact Assessment** and includes known potential future developments within the vicinity. The pedestrian-level wind conditions within and around the Proposed Development were predicted using the results from a boundary-layer wind tunnel test combined with historical meteorological wind records for the region. The wind speeds have been evaluated against suitable criteria to assess pedestrian wind safety and comfort conditions. The results of the assessment are summarised as follows:

Pedestrian Wind Safety

Wind speeds across the study area were found to meet the applicable wind safety criteria at all assessed locations for both site configurations, except for the topmost penthouse level, where wind speeds exceed the safety threshold at the eastern and south-western terraces.

Pedestrian Wind Comfort

- **Existing Configuration:** Wind comfort levels at the assessed locations under the existing configuration are generally within acceptable limits and suitable for their intended uses. Localised increases to strolling-level wind conditions are observed at a small number of exposed building corners and along adjacent pedestrian routes due to corner acceleration effects. However, these conditions remain appropriate for pedestrian movement, and no comfort or safety concerns are expected.
- **Proposed Configuration:** With the proposed building in place, ground-level wind conditions across the site remain generally comfortable and appropriate for pedestrian use, with only a few localised areas experiencing slightly higher winds due to corner acceleration effects. Most terraces and balconies meet the targeted comfort criteria and are suitable for their intended use. However, higher wind speeds are expected at the Level 6 podium rooftop communal area and within the Level 42 penthouse balconies which reach uncomfortable conditions.
- **Future Configuration:** With the inclusion of surrounding future buildings, wind conditions across the site are generally improved and remain suitable for their intended use. At ground level, increased wind speeds along Hannell Street increase wind conditions at localised areas to strolling and walking use which are still acceptable for pedestrian pathways. Most upper-level terraces and balconies meet the targeted comfort criteria. The Level 6 podium rooftop communal area improves to strolling conditions for areas not under cover while the Level 42 penthouse balconies continue to have uncomfortable conditions.

Review of Updated Drawings

A review of updated architectural drawings (Description: 100% Frozen Set Issue, Dated: 27/03/2026) representing the current design of the Proposed Development, received by RWDI on the 30 March 2026, shows

that the overall design and height of the development remain consistent with the model tested in the wind tunnel. Key modifications to outdoor trafficable areas relevant to wind are listed as follows:

- **Ground:** Densely foliating evergreen landscaping including trees is proposed around bench seating areas south of the site.
- **Level 5:** Removal of the Level 5 Open Terrace.
- **Level 6:** Densely foliating evergreen landscaping including trees is proposed throughout the open space outside of the overhead cover. Inclusion of impermeable screening along south-west corner of trafficable area.
- **Level 7:** Extension of Level 7 Communal Open Space towards the eastern aspects with a similar layout to the previous Level 7 area.
- **Level 8-11:** Relocation of Level 8 Communal Open Space from the northern aspects to the north-eastern aspects of the building and extension of these spaces to Levels 8-11. These spaces are recessed into the building form.
- **Level 17:** Addition of Level 17 Communal Open Space at the south-western aspects. This space is recessed into the building form.
- **Level 42:** Inclusion of secondary awning located at a standard storey height around all balcony areas and impermeable partition screening throughout balconies to break up the open space for a layout similar to standard apartment levels.

These above changes are not expected to significantly impact wind conditions of the unchanged areas of the development however are expected to mitigate the comfort and safety exceedances observed in the wind tunnel testing. Based on the findings of the wind tunnel study and review of the current design of the Proposed Development, wind conditions are expected to be suitable for the trafficable areas within and around the site and are expected to meet the required comfort and safety criteria.

No further wind mitigations are required.

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1 INTRODUCTION AND OBJECTIVES

1.1 Introduction

This Pedestrian Wind Study Report is submitted to the Department of Planning, Housing and Infrastructure (DPHI) on behalf UPG Wickham Pty. Ltd. (UPG) (the Applicant), to support a State Significant Development Application (SSDA) and concurrent Rezoning Report for the construction of a 43-storey mixed-use development at 10 Dangar Street, Wickham (the site). The site is located within the Newcastle local government area (LGA) and occupies a prominent corner position immediately north of the Newcastle Interchange.

The project has been selected by the NSW Housing Delivery Authority (HDA) as a key development to help accelerate the delivery of well-located, diverse and affordable housing in New South Wales. Commencing in early 2025, the HDA plays a coordinating role across government agencies, focusing on unlocking complex sites through strategic planning, infrastructure coordination, and streamlined assessment pathways.

Following the Applicant's expression of interest (EOI 240837), the HDA considered and recommended to the Minister for Planning and Public Spaces (the Minister) that the project be declared SSD under Section 4.36(3) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 23 June 2025. Following this recommendation, the development was declared by the Minister to be SSD pursuant to the *State Significant Development Declaration Order 2025* (No 10), Part 2, Section 1(a), dated 30 June 2025.

1.2 Project Background

The site was identified under the *Wickham Master Plan 2017* as a strategically significant location for increased development capacity, given its proximity to the Newcastle Interchange and its potential to support high-density, mixed-use development. The Master Plan proposed an uplift in planning controls, increasing the permissible building height from 45m to 60m, and the FSR from 5:1 to 6:1, subject to the delivery of public domain improvements, including a 3-metre southern setback adjacent to the transport interchange.

This strategic vision was subsequently reaffirmed in the *Wickham Master Plan 2021 Update* (PP-2021-1506) and further refined in the 2022 amendment, which supported additional incentive-based planning controls. The Community Infrastructure Incentives in Wickham Planning Proposal (PP-2022/1541), endorsed by Council in March 2022 (and subsequently approved 08 November 2022), proposed:

- An incentive FSR of 7:1 for Area E (the site),
- A maximum incentive building height of 60m, and
- Community infrastructure requirements.

In alignment with these strategies, the site has been subject to successive development consents as outlined in the Environmental Impact Statement (EIS) prepared by Beam Planning. These prior consents have been physically commenced through demolition and excavation works and establish the maximum envelope for basement structures. This SSDA will adopt and refine these commenced elements to expedite the assessment process, continue construction progress on the site, and ensure continuity with previously endorsed planning outcomes.

1.3 The Proposal

1.3.1 Rezoning Proposal

To facilitate the proposed development described in **Section 3.2**, a concurrent Rezoning Proposal is sought to make the following amendments to the *Newcastle Local Environmental Plan 2012* (Newcastle LEP 2012) in relation to the site:

- Amend Clause 7.9 to permit a maximum building height of RL 152 on the site; and,
- Amend the Clause 7.9A to permit a maximum FSR of 14.4:1 on the site.

1.3.2 State Significant Development Application

The proposed amendments to the Newcastle LEP 2012, as outlined above, will facilitate the following development, proposed via a concurrent SSDA. Specifically, the proposed works sought under the SSDA include:

- Construction of a 43-storey (+ plant) mixed-use tower, comprising:
    - 245 residential apartments
    - 99 co-living units
    - Ground floor retail premises, to all three street frontages
    - A hotel component within the podium
    - Basement car parking
- Associated landscaping and public domain improvements, including the provision of a pedestrian through-site link that runs east/west adjacent to the Newcastle Interchange.

It is noted that the project will commit to providing 15% of the residential GFA as affordable housing for a minimum of 15 years, to be managed by a registered Community Housing Provider (CHP).

The proposed SSDA will seek consent for the use of basement structures and enabling works approved under DA2018/01197 (as modified).

For a detailed description of the proposed development, refer to the EIS prepared by Beam Planning, and the Architectural Drawings prepared by SJB Architecture.

1.4 The Site

The site is located at 10 Dangar Street, Wickham, within the Newcastle LGA. The site benefits from triple street frontages, with a primary street frontage of approximatley 64m to Dangar Street, and secondary street frontages of approximatley 61m to Hannell Street and 50m to Charles Street.

The surrounding locality comprises a diverse mix of land uses including residential, commercial, and light industrial uses, reflecting the area's ongoing transition. The site's frontage to Hannell Street, a major arterial road, supports high levels of connectivity to the broader metropolitan area. The site is located immediately north of the Newcastle Interchange, providing bus, rail and light rail services. Strategically, the site sits at the intersection of the Newcastle West End, Wickham, and Honeysuckle precincts, positioning it to support the city's transition to a higher-density, mixed use metropolitan centre.

The site is currently vacant following demolition works approved under DA2018/01197 (as modified).

Image 1 illustrates the location of the site.

Image 1: Aerial Photo

1.5 Relevant SEARs/Rezoning Requirements

This Pedestrian Wind Study Report addresses the following relevant Secretary's Environmental Assessment Requirements (SEARs) and Guidance for Concurrent Rezoning Report: SSD Housing issued for the project set out in the table below.

Table A: SSD-89869959 SEARs

SEARs Requirement	Response / Location in Report
7. Environmental Amenity • Assess amenity impacts on the surrounding locality, including solar access, visual privacy, view loss and view sharing, as well as **wind**, lighting and reflectivity impacts. A high level of environmental amenity for any surrounding residential or other sensitive land uses must be demonstrated.	Sections 3.3 & 3.4 discuss the wind safety and comfort exceedances within the site for the tested configurations of the Proposed Development.
23. Public Space • If public space is proposed as part of the development, demonstrate how the development: ○ maximises the amount, access to and quality of public spaces (including open space, public facilities and streets/plazas within and surrounding the site), reflecting relevant design guidelines and advice from the local council and the Department.	Section 3.5 details the recommendations to ameliorate wind impacts.

- provides accessible public space.
- maximises permeability and connectivity.
- maximises the amenity of public spaces in line with their intended use, such as through adequate facilities, solar access, shade and **wind protection**.
- maximises street activation.
- minimises potential vehicle, bicycle and pedestrian conflicts.

1.6 The Objective

RWDI Australia Pty Ltd (RWDI) has been engaged to carry out a pedestrian wind assessment on and around the Proposed Development located at 10 Dangar St, Wickham, NSW. This report presents the project objectives, background and approach, and discusses the results from RWDI's wind tunnel assessment. Commentary on conceptual wind control measures is also provided, if necessary.

The objective of the study is to assess the wind comfort and safety conditions along pedestrian areas within and around the study site and provide recommendations for minimising adverse wind effects, if needed. This quantitative assessment is based on wind speed measurements on a scale model of the Proposed Development and its surroundings in one of RWDI's boundary-layer wind tunnels. These measurements were combined with the local wind records and compared with the appropriate criteria to gauge the wind comfort and safety in pedestrian areas. The key outdoor pedestrian-accessible areas of interest associated with the development include the pedestrian footpaths around the site, entrances to the development, and the various outdoor amenity spaces on ground and upper levels of the development.

2 APPROACH AND METHODOLOGY

2.1 Wind Tunnel Study Model

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

Existing Configuration:	Existing Site with Existing Surrounding Buildings (Image 2A)
Proposed Configuration:	Proposed Development with Existing Surrounding Buildings (Image 2B)
Future Configuration:	Proposed Development with Existing & Future Surrounding Buildings (Image 2C)

The wind tunnel model included all relevant surrounding buildings and topography within a radius of 360 m around the project site. This encompassed both existing structures and those currently under construction, with an expectation that these would likely be present or completed by the time the proposed subject development concludes. The Future Configuration noted above has been included to address the requirement for a **Cumulative Impact Assessment** and includes known potential future developments within the vicinity. Additionally, the wind and turbulence profiles in the atmospheric boundary layer beyond the modelled area were simulated in RWDI's wind tunnel, incorporating spires and roughness blocks.

The wind tunnel model was instrumented with 91 specially designed wind speed sensors to measure mean and gust speeds at a full-scale height of approximately 1.5 - 2 m above local ground in pedestrian areas throughout the study site. The placement of wind measurement sensors 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.

Note that no vegetation was included as part of the configuration tested, in accordance with AWES Guidelines (2024). The method for testing scale models in the wind tunnel is consistent with internationally recognized good practice, and meets the requirements set out in the Australasian Wind Engineering Society Quality Assurance Manual (AWES-QAM-2019).

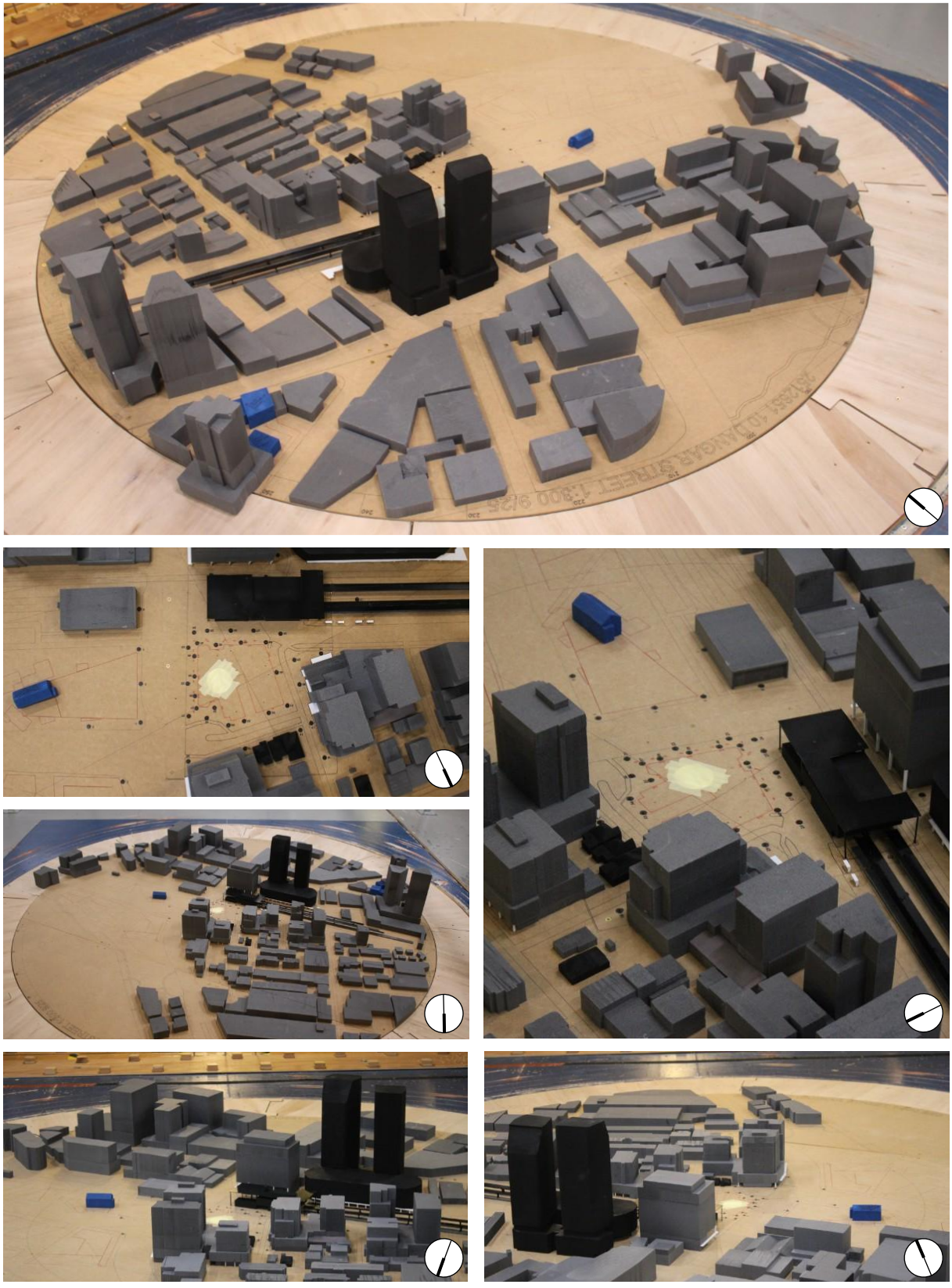

Image 2A: Wind Tunnel Study Model – Existing Configuration

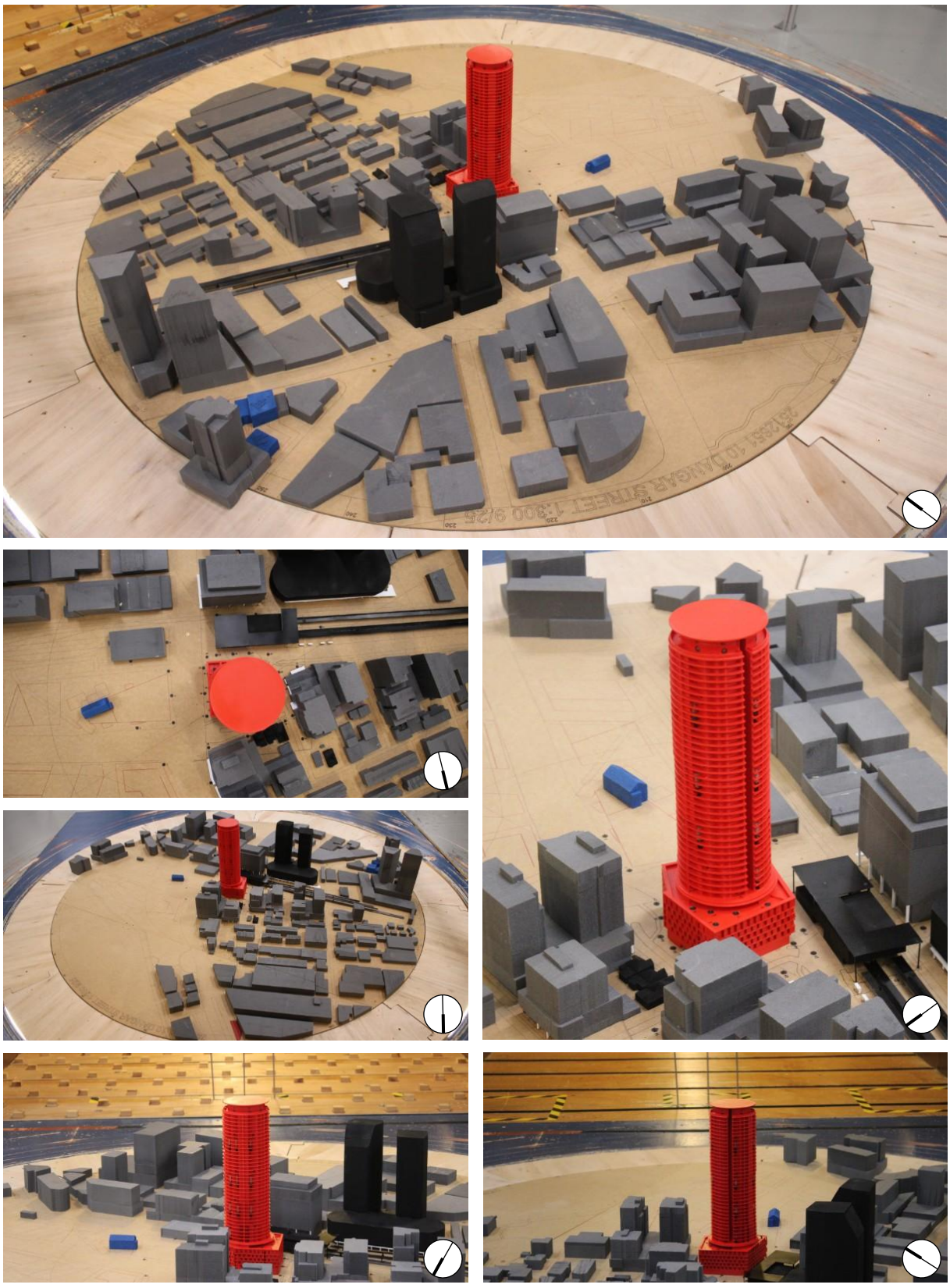

Image 2B: Wind Tunnel Study Model – Proposed Configuration

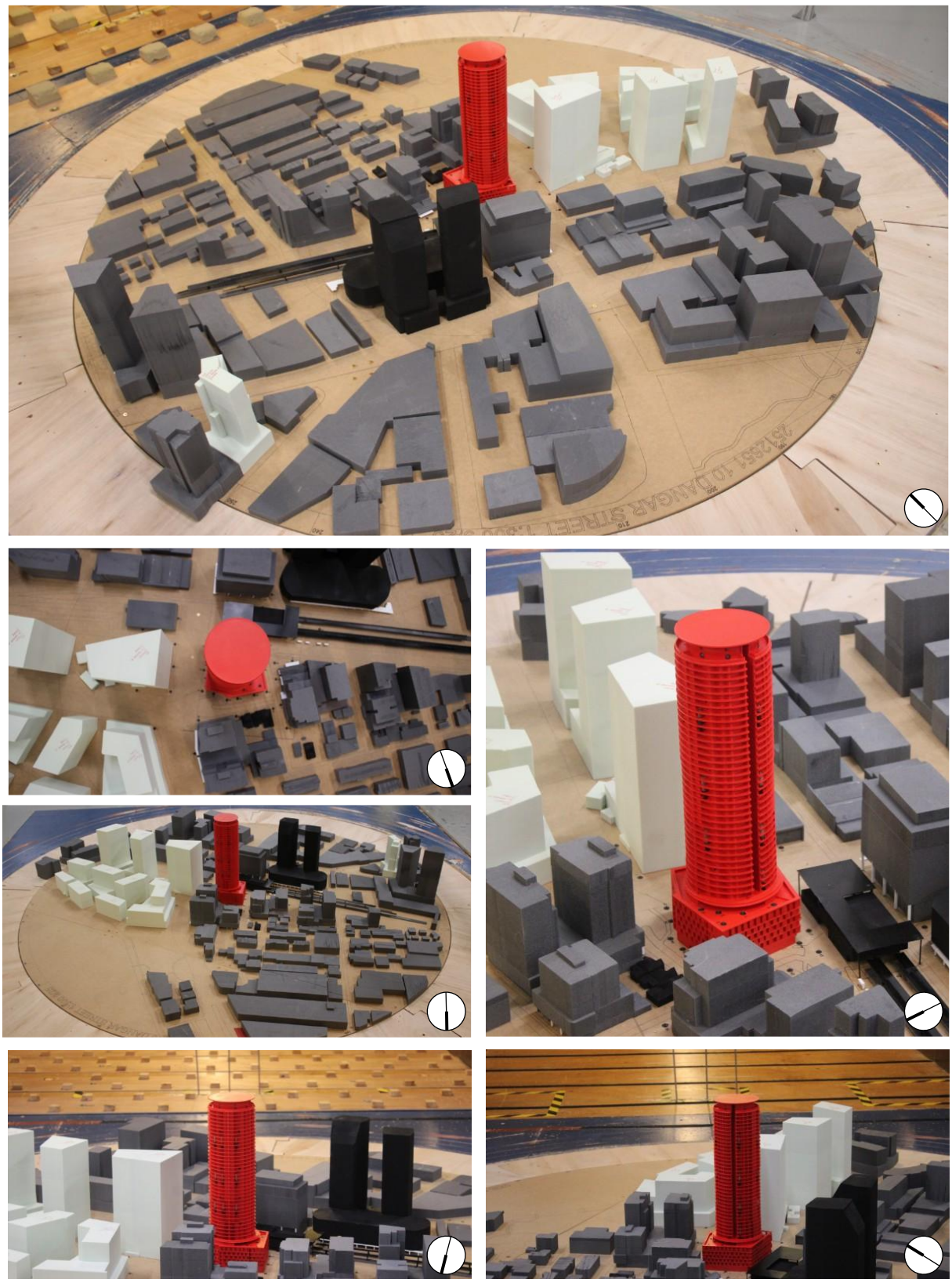

Image 2C: Wind Tunnel Study Model – Future Configuration

2.2 Meteorological Data

Wind statistics recorded at Newcastle Nobby's Signal Station, NSW between 2002 and 2024, were analysed to assess the site wind conditions. Image 3 graphically depicts the directional distributions of wind frequencies and speeds for station. Winds from the north-west directions are predominant during the year with secondary winds from the south south-east and north-east directions. Strong winds of a mean speed greater than 30 km/h measured at the airport (at an anemometer height of 10 m) were observed for 6.5% during the year.

Wind statistics were combined with the wind tunnel data to predict the frequency of occurrence of full-scale wind speeds using the time-histories of winds. The full-scale wind predictions were then compared with the wind criteria for pedestrian comfort and safety, as described in Section 2.3.

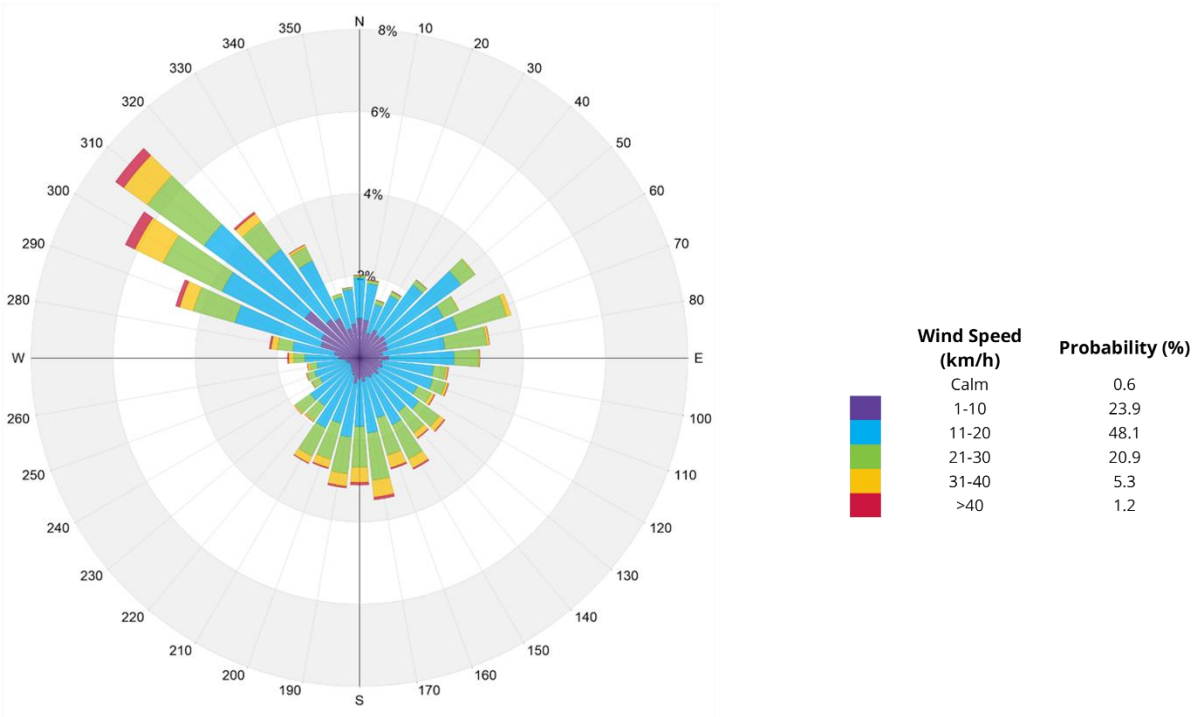

Image 3: Directional Distribution of Winds Approaching Nobby's Signal Station
(2002 - 2024)

2.3 Pedestrian Wind Criteria

2.3.1.1 Wind Safety

Pedestrian safety is associated with excessive gusts that can adversely affect a pedestrian's balance and footing. The criterion to assess pedestrian safety is based on the guidelines of the Australasian Wind Engineering Society (2024). The guidelines dictate that if the **maximum average 3-second gust speeds of more than 83 km/h (23 m/s) occur for more than 9 hours (0.1% of the time) on an annual basis**, the wind conditions are considered severe. Wind control measures, in the form of an architectural response, are typically required at locations where wind speeds exceed the wind safety criterion.

2.3.1.2 Wind Comfort

The RWDI pedestrian wind comfort criteria, which have been developed through research and consulting practice since 1974, have been utilised for the current assessment. These criteria, shown in the Table below, have gained widespread acceptance among municipal authorities, building designers, and city planners globally. Pedestrian wind comfort is assessed using Gust Equivalent Mean (GEM) wind speeds which quantifies the combined impact of mean and gust speeds on pedestrian comfort making it a reliable predictor for assessing wind conditions in built-up environments. The wind comfort levels are categorised based on intended pedestrian use and are expressed in terms of their suitability for various levels of human activity. Wind control measures are typically required at locations where the occurrence frequencies of wind speeds exceed the threshold values for the specific pedestrian activity intended for the space.

Table: RWDI Pedestrian Wind Comfort Criteria

Comfort Category	GEM Speed (km/h)	Description
Sitting	≤ 10	Calm or light breezes are desired for outdoor restaurants and seating areas where one can read a paper without having it blown away
Standing	≤ 14	Gentle breezes suitable for main building entrances, bus stops, private balconies / terraces, and other places where pedestrians may linger
Strolling	≤ 17	Moderate winds that would be appropriate for window shopping and strolling along a downtown street, plaza, or park
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 all pedestrian activities, and wind mitigation is typically recommended

Notes:
(1) GEM Speed = max (Mean Speed, Gust Speed/1.85)
(2) Gust Speed = Mean Speed + 3*RMS Speed
(3) Wind conditions are comfortable if the predicted GEM speeds are within the respective thresholds for at least 80% of the time between 6:00 and 23:00. Nightly hours between 0:00 and 5:00 are excluded from the wind analysis for comfort since limited usage of outdoor spaces is anticipated.

Note that these criteria for wind forces represent average wind tolerance and can be subjective with regional differences in wind climate and thermal conditions as well as variations in age, health, clothing, etc. also impacting an individual's perception of the wind climate. Hence, comparison of various scenarios is the most objective method to assess the impact of the development on the local wind microclimate.

3 RESULTS AND DISCUSSION

The predicted wind conditions are shown on site plans in Figures 1A and 1B 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. 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 wind tunnel tests have been carried out without any form of wind ameliorations or vegetation/landscaping to establish a baseline understanding of the wind conditions around the site, as per guidelines.

3.1 Generalised Wind Flows

In the discussion of wind conditions on and around the Proposed Development, reference may be made to the following generalised wind flows (see Image 4). If these building/wind combinations occur for prevailing winds, there is a greater potential for increased wind activity and uncomfortable or potentially unsafe conditions. Design details such as setting back a tower from the edges of a podium, deep canopies close to ground level, windscreens / tall trees with dense landscaping, etc. as shown in Image 4 can help to reduce the high wind activity. 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.

Conversely, in areas where higher wind velocities are desired, design measures can be implemented to enhance wind flow. For instance, channels aligned with prevailing wind directions can be integrated into the design to promote increased wind infiltration in regions prone to stagnant conditions. Such measures are particularly beneficial in areas with generally milder climates and high humidity levels, such as those closer to the equator.

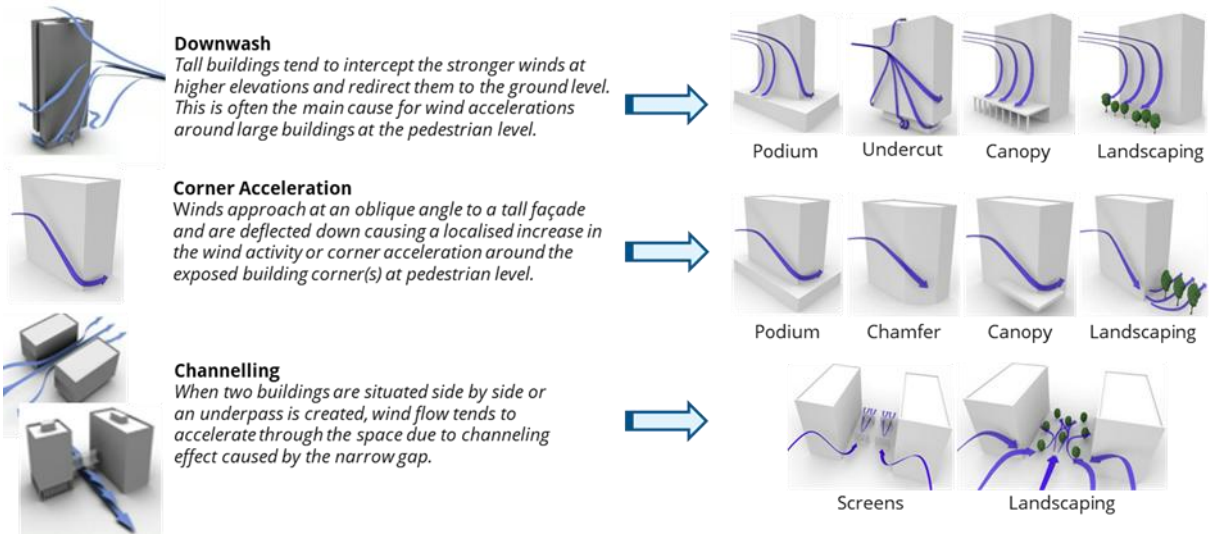

Image 4: General Wind Flows around Buildings and Examples of Wind Control Measures

3.2 Existing Configuration

3.2.1 Wind Comfort

Wind comfort conditions within and around the existing site are shown in Figure 1A. The site is surrounded by existing mid-rise buildings, apart from an open main road to the east, resulting in generally calm wind conditions. Throughout the year, wind speeds across most areas remain within acceptable thresholds for standing use (Figure 1A). Slightly higher wind speeds appropriate for active pedestrian use are expected primarily along the eastern edge of the site and to the northwest along the Charles Street (Sensors 16, 20, 21, 34 & 36).

3.2.2 Wind Safety

Wind safety conditions within and around the existing site are shown in Figure 2A. The wind speeds at all assessed locations were found to remain within the acceptable thresholds for pedestrian safety in existing site configurations. Consequently, no wind-related safety issues are anticipated for pedestrians around the site or for building occupants in the evaluated areas.

3.3 Proposed Configuration

3.3.1 Wind Comfort

Wind comfort conditions for the Proposed Configuration are shown in Figures 1.1B and 1.2B.

3.3.1.1 Ground Level

- In the Proposed Configuration, wind conditions on the ground level generally range from sitting to strolling use within and around the site and are suitable for intended uses. One location at the north-east corner of the site along Dangar Street (Sensor 34) reaches walking use conditions however this is within the acceptable range for the designated pedestrian thoroughfare use. No comfort issues are anticipated within the ground level areas along the footpaths around and further from the site as the wind speeds remain appropriate for the intended footpath use.
- Areas around the building corners (Sensors 21, 24, 25, 27, 31, 36, 41, & 44), along with a few locations further from the site, exhibit wind speeds suitable for strolling activity. All remaining areas show wind conditions appropriate for standing or sitting use, indicating no comfort concerns for pedestrians at ground level.
- The hotel and residential entrances at the north-eastern corner and along the southern aspect (Sensors 35 and 42) as well as the retail entrances along the eastern and southern aspects (Sensors 38, 39, 40 and 43) all range from sitting to standing conditions and are suitable for intended uses. Sitting use conditions are expected along proposed outdoor dining seating areas along the western end of the southern colonnade (Sensor 43) which is comfortable for intended uses.

3.3.1.2 Elevated Levels

- The open terrace area on Level 5, located along the southern corner, experiences wind conditions suitable for sitting use (Sensors 46, 47). This indicates a calm and comfortable environment where wind

speeds remain low throughout the year suitable for intended uses. This area has been noted to be removed from the current design in a review of the 100% Drawing Set, in Section 3.5.

- At Level 6, the open terrace incorporates a recessed area with overhead cover at the north-western portion of the building form. This recessed area (Sensors 52 and 53) was observed to have calm sitting use conditions due to its low wind exposure. The exposed areas along the perimeter (Sensors 48-51) are impacted by the easterly and southerly winds which create conditions ranging from strolling use to uncomfortable levels at the northern building corner.
- The communal open areas on Levels 7 and 8 (represented by Sensors 55 and 56), are located in a calmer region of the building and were observed to have wind conditions suitable for sitting use.
- The private tower balconies of the development (Sensors 57-83) remain well within the sitting and standing comfort ranges, due to the staggered building façade and protruding columns that break up the balcony areas. These private balconies are expected to remain comfortable and usable throughout the year.
- The Level 42 penthouse balconies are exposed to high strength winds due to their elevation and were observed to have uncomfortable wind conditions at the eastern and south-western balconies (Sensors 86-91) while the north-western penthouse balcony (Sensors 84 and 85) was observed to have strolling to walking use conditions. These balconies wrap around the building form and are open and exposed to winds that flow over the balustrade to reattach within the balcony floor. Expected conditions for the current design of these balconies is provided based on a review of the 100% Drawing Set in Section 3.5.

3.3.2 Wind Safety

Wind safety conditions in the Proposed Configuration are shown in Figures 2.1B and 2.2B.

3.3.2.1 Ground Level

- At ground level, wind speeds at all assessed locations remain within the applicable safety criteria in proposed configuration also. No areas are expected to pose a wind-related safety risk for pedestrians, and conditions are considered safe for regular use.

3.3.2.2 Elevated Levels

- At Level 42, the eastern and southern penthouse balconies (Sensors 85 to 91) were observed to have wind conditions exceeding the safety limits due to their elevation and reattaching winds. Expected conditions for the current design of these balconies is provided based on a review of the 100% Drawing Set in Section 3.5.

3.4 Future Configuration (Cumulative Impact Assessment)

3.4.1 Wind Comfort

Wind comfort conditions for the Future Configuration are shown in Figures 1.1C and 1.2C.

3.4.1.1 Ground Level

- Ground level, wind conditions remain comfortable, with most locations within the sitting or standing use categories. Strolling use conditions are expected along localised areas of Dangar Street (Sensor 34),

Station Street (Sensor 27) and Hannell Street (Sensors 21, 22, 37) reaching walking use at the corner of Hannell Street and Station Street (Sensor 6), however, these conditions are suitable for the intended thoroughfare use within and around the site.

- All entrances including the hotel and residential lobby entrances all remain consistent with the Proposed Scenario and range from sitting to standing conditions and are suitable for intended uses.

3.4.1.2 Elevated Levels

- In the Future Configuration, the open terrace on Level 5, communal open areas on Levels 7 and 8 as well as the private tower balconies of the development all do not significantly change from the Proposed Scenario and have sitting to standing use conditions suitable for their intended uses. The Level 5 open terrace has been noted to be removed from the current design in a review of the 100% Drawing Set, in Section 3.5.
- The Level 6 terrace is still impacted by winds from the north-east. With the construction of nearby buildings in the upwind directions, wind comfort improve in this area with the exposed areas along the perimeter of the (Sensors 48-51) all within strolling use conditions. The recessed areas of the terrace remain sheltered, with sitting conditions similar to the Proposed Scenario.
- Wind conditions at the Level 42 penthouse balconies remain unchanged from the Proposed Scenario and continue to have uncomfortable wind conditions at the eastern and south-western balconies with strolling to walking use conditions at the north-western penthouse balcony. Expected conditions for the current design of these balconies is provided based on a review of the 100% Drawing Set in Section 3.5.

3.4.2 Wind Safety

Wind safety conditions in the Future Configuration are shown in Figures 2.1C and 2.2C.

3.4.2.1 Ground Level

- At ground level, wind speeds at all assessed locations remain within the applicable safety criteria in future configuration also. No areas are expected to pose a wind-related safety risk for pedestrians, and conditions are considered safe for regular use.

3.4.2.2 Elevated Levels

- At Level 42, the eastern and southern penthouse balconies continue to exceed the safety criteria in the Future Configuration as well. Expected conditions for the current design of these balconies is provided based on a review of the 100% Drawing Set in Section 3.5.

3.5 Review of Updated Architectural Drawings

A review of updated architectural drawings (Description: 100% Frozen Set Issue, Dated: 27/03/2026) representing the current design of the Proposed Development, received by RWDI on the 30 March 2026, shows that the overall design and height of the development remain consistent with the model tested in the wind tunnel. Key modifications to outdoor trafficable areas relevant to wind are listed as follows:

- **Ground:** Densely foliating evergreen landscaping including trees is proposed around bench seating areas south of the site.
    - Wind conditions are expected to be within safety limits and comfortable for the localised seating zones, ranging from sitting to standing conditions.
- **Level 5:** Removal of the Level 5 Open Terrace.
- **Level 6:** Densely foliating evergreen landscaping including trees is proposed throughout the open space outside of the overhead cover. Inclusion of impermeable screening along south-west corner of trafficable area.
    - Wind conditions are expected to be within safety limits and comfortable for the outdoor open spaces (standing to strolling conditions) and proposed seating areas (sitting conditions).
- **Level 7:** Extension of Level 7 Communal Open Space towards the eastern aspects with a similar layout to the previous Level 7 area. Wind conditions are expected to be similar to the previously tested Level 7 Open Space and the Level 10 Private Balcony areas.
    - Wind conditions are expected to be within safety limits and comfortable for the open areas, ranging from sitting to standing conditions.
- **Level 8-11:** Relocation of Level 8 Communal Open Space from the northern aspects to the north-eastern aspects of the building and extension of these spaces to Levels 8-11. These spaces are recessed into the building form and are expected to have conditions similar the north-eastern private balconies tested on Level 10.
    - Wind conditions are expected to be within safety limits and comfortable for the open areas, ranging from sitting to standing conditions.
- **Level 17:** Addition of Level 17 Communal Open Space at the south-western aspects. This space is recessed into the building form and is expected to have conditions similar the southern and western private balconies tested on Level 17.
    - Wind conditions are expected to be within safety limits and comfortable for the open areas, ranging from sitting to standing conditions.
- **Level 42:** Inclusion of secondary awning located at a standard storey height around all balcony areas and impermeable partition screening throughout balconies to break up the open space for a layout similar to standard apartment levels.
    - Wind conditions are expected to be within safety limits and comfortable for the intended uses ranging from sitting to strolling conditions.

These above changes are not expected to significantly impact wind conditions of the unchanged areas of the development however are expected to mitigate the comfort and safety exceedances observed in the wind tunnel testing. Based on the findings of the wind tunnel study and review of the current design of the Proposed Development, wind conditions are expected to be suitable for the trafficable areas within and around the site and are expected to meet the required comfort and safety criteria.

No further wind mitigations are required.

4 STATEMENT OF LIMITATIONS

Limitations

This report, entitled *'10 Dangar Street, NSW, Wickham Pedestrian Wind Study'* was prepared by RWDI Australia Pty Ltd ("RWDI") for Urban Property Group ("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 utilise 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 the client and used to construct the scale model of the development **("Project Data**"). Updated architectural drawings (Description: 100% Frozen Set Issue, Dated: 27/03/2026), received by RWDI on the 30 Marcg 2026, shows that the overall design and height of the development remain consistent with the model tested in the wind tunnel. The findings and recommendations in this report have taken into consideration these updated drawings.

File Name	File Type	Date Received
7105_A24_DANGAR_ST_Building	.ifc	15 January 2026
Below are Updated architectural drawings (Description: 100% Frozen Set Issue, Dated: 27/03/2026)		
7105_20260327_SET	.pdf	30 March 2026

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

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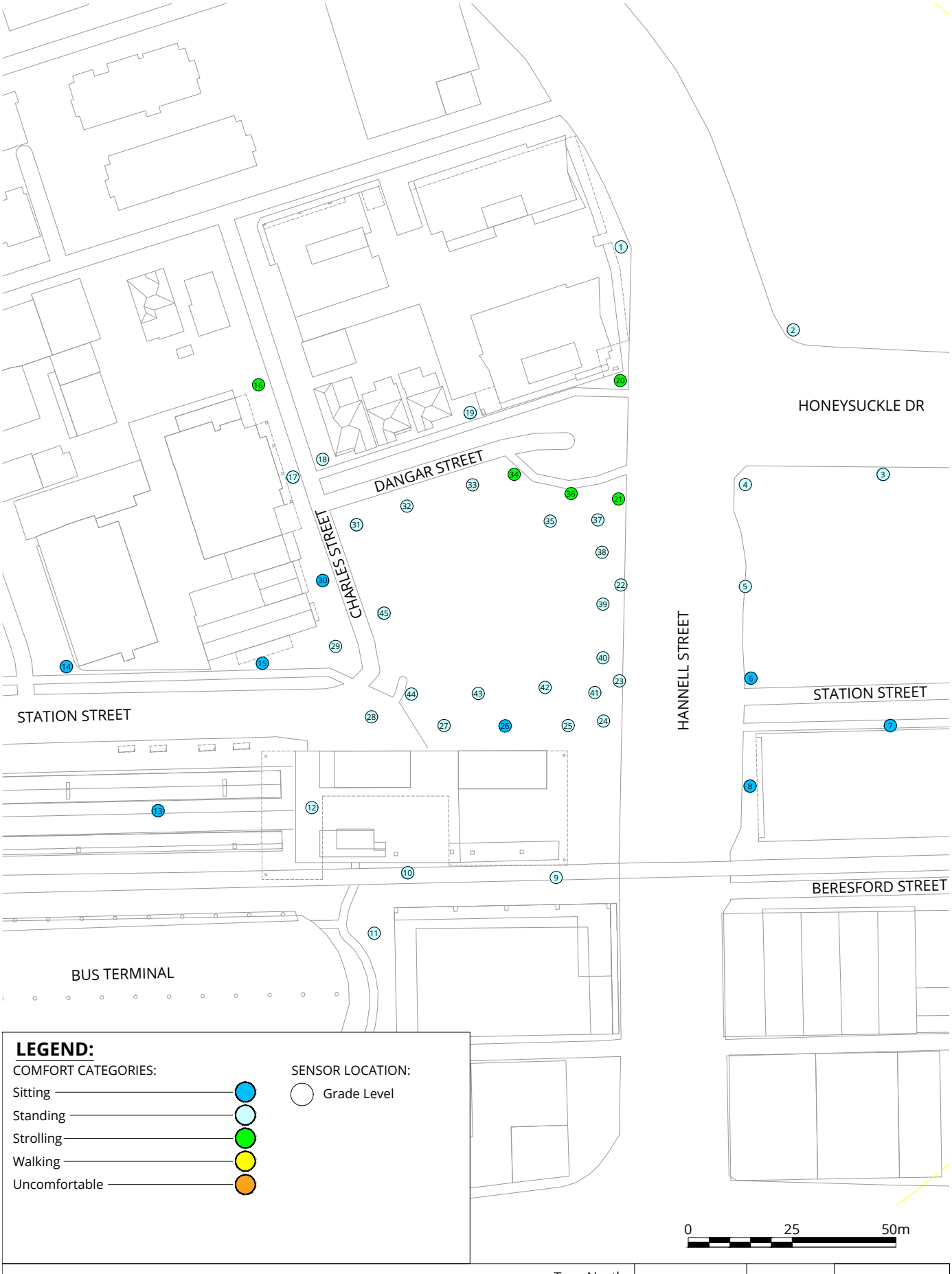
FIGURES



Pedestrian Wind Comfort Conditions

Existing Configuration

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

10 Dangar Street - Wickam, NSW

Project #2512651

True North

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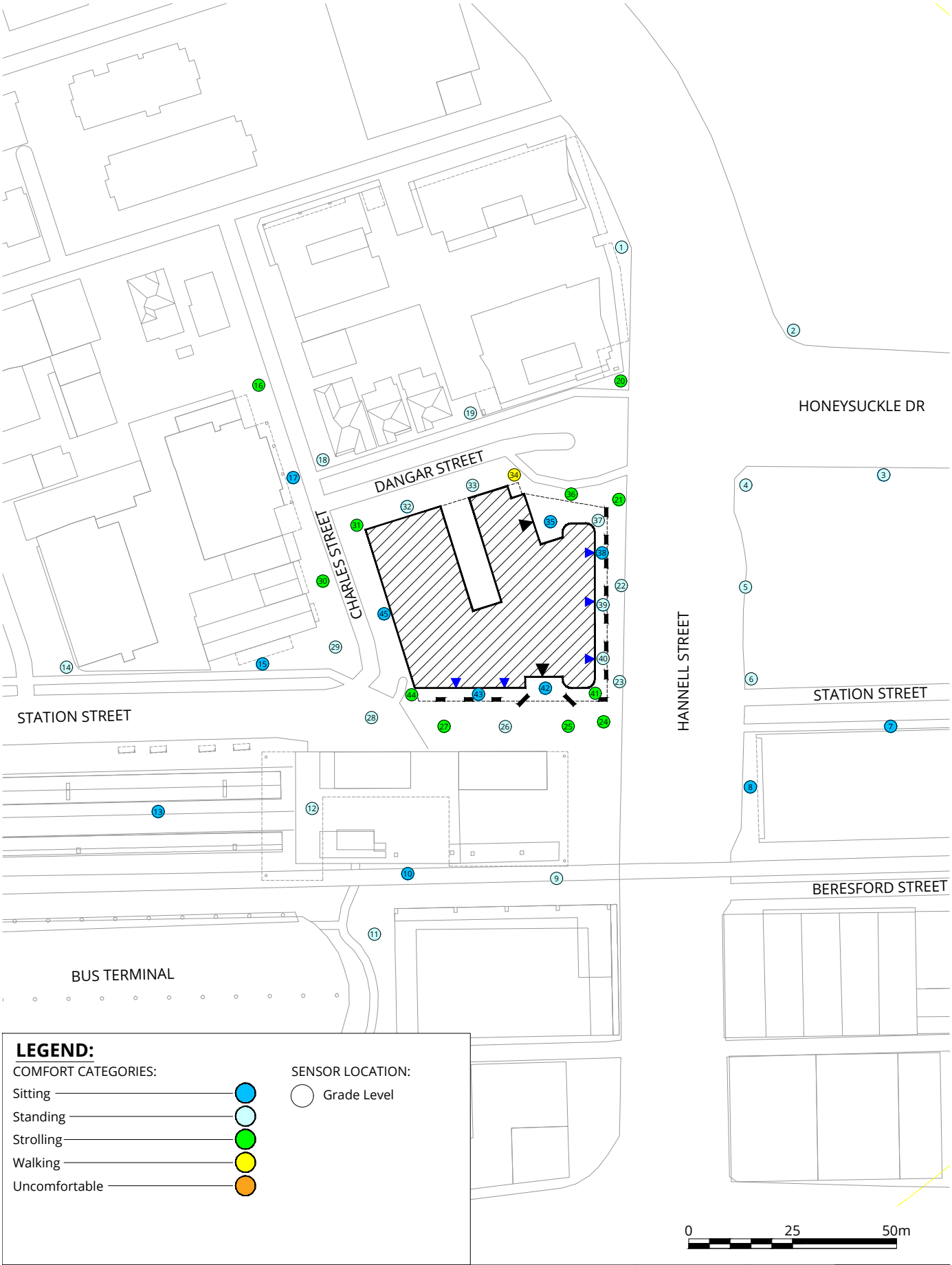
Date Revised:	Mar. 12, 2026		



Pedestrian Wind Comfort Conditions

Proposed Configuration

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

10 Dangar Street - Wickam, NSW

Project #2512651

True North

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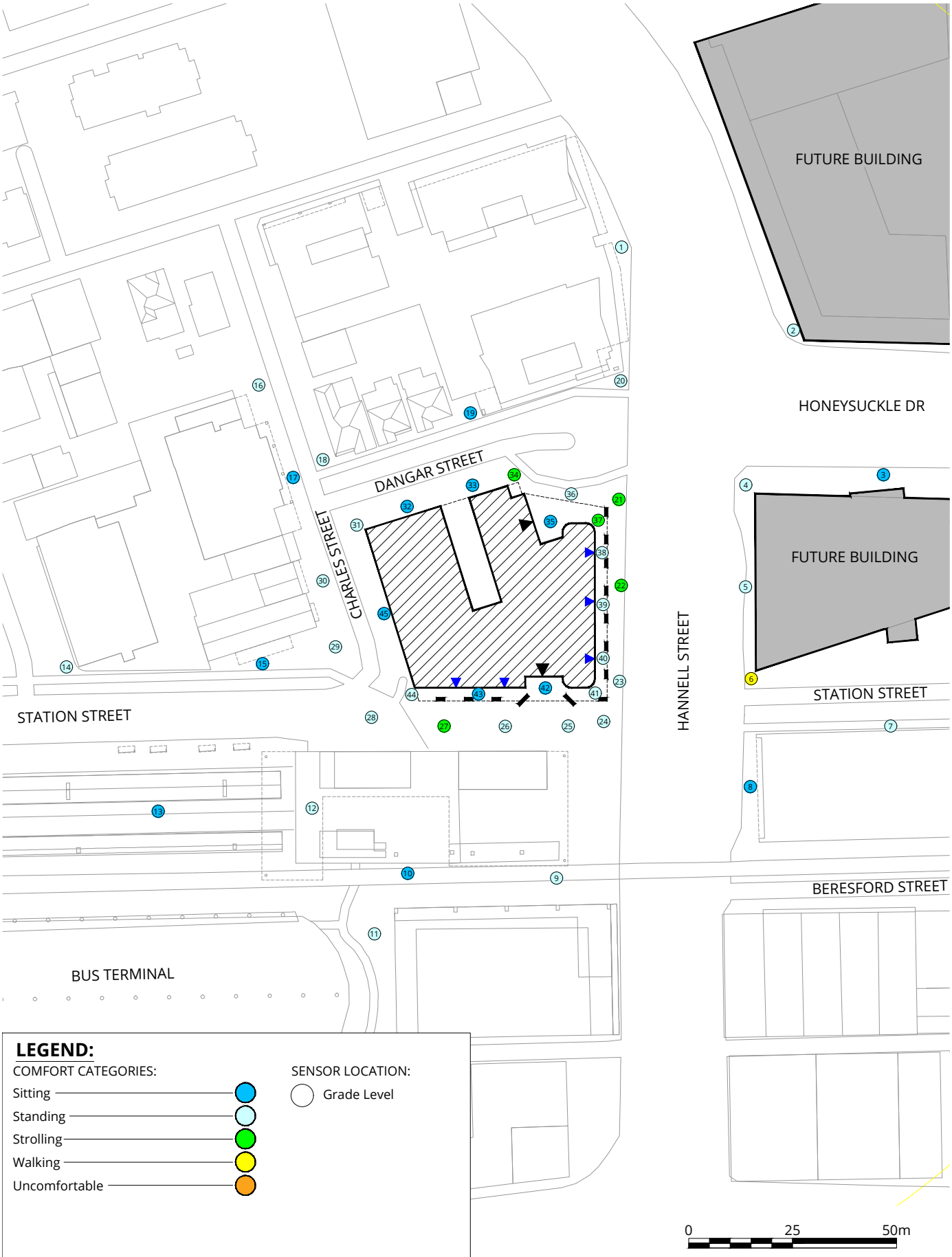

LEGEND:

COMFORT CATEGORIES:

- Sitting
- Standing
- Strolling
- Walking
- Uncomfortable

SENSOR LOCATION:

- Grade Level

Pedestrian Wind Comfort Conditions

Future Configuration

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

10 Dangar Street - Wickam, NSW

Project #2512651

True North

Drawn by:	SHJ	Figure:	1.1C
Approx. Scale:	1:1250		
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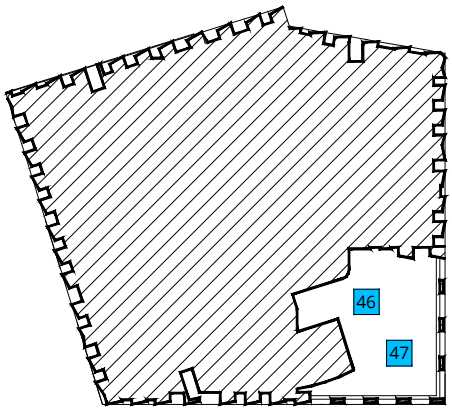

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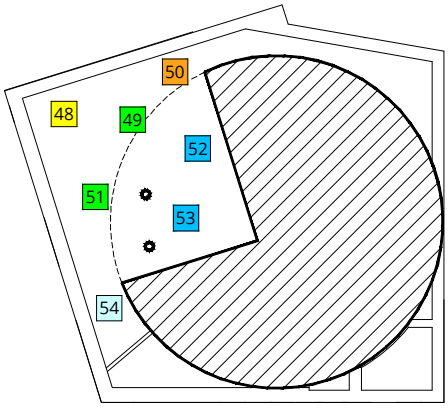

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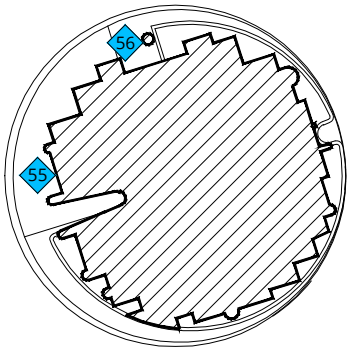

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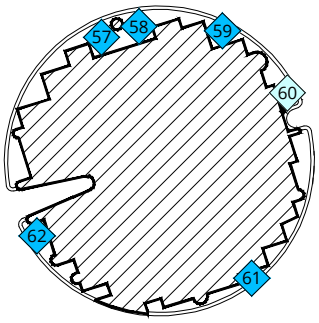

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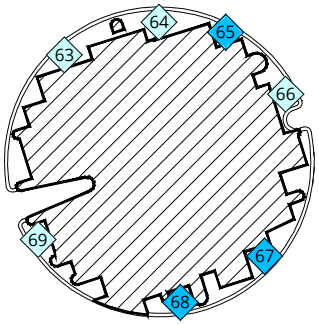

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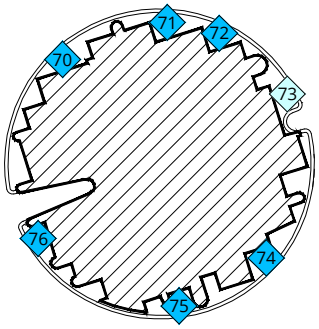

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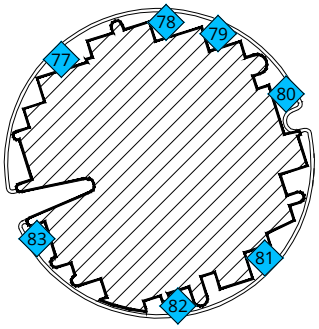

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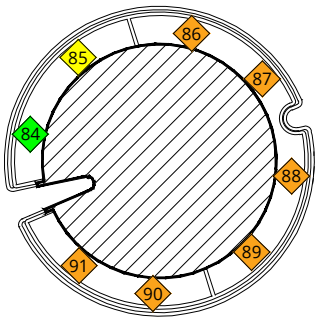


42 LEVEL FLOOR PLAN

LEGEND:

COMFORT CATEGORIES:

- Sitting
- Standing
- Strolling
- Walking
- Uncomfortable

SENSOR LOCATION:

- Podium Level
- Balconies
- Building Above Removed For Clarity

0 25 50m

Pedestrian Wind Comfort Conditions

Proposed Configuration

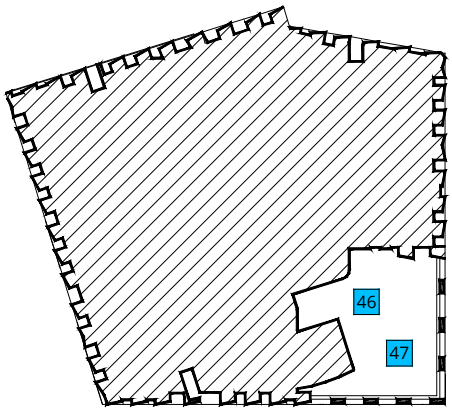
Annual (January to December, 0:00 to 23:00)

10 Dangar Street - Wickam, NSW

Project #2512651

True North

Drawn by:	SHJ	Figure:	1.2B
Approx. Scale:	1:1250		
Date Revised:	Mar. 12, 2026		



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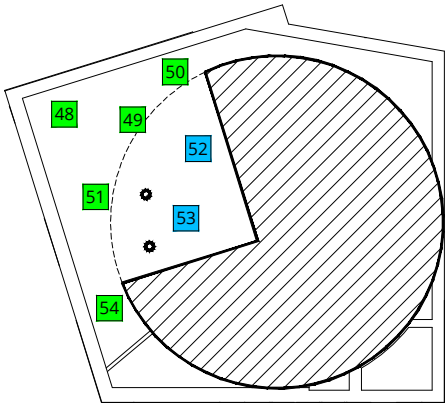

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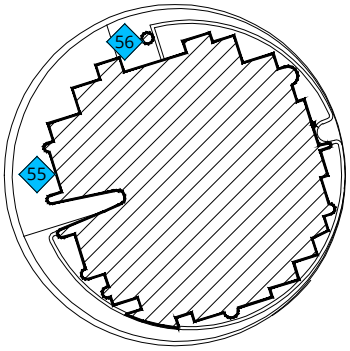

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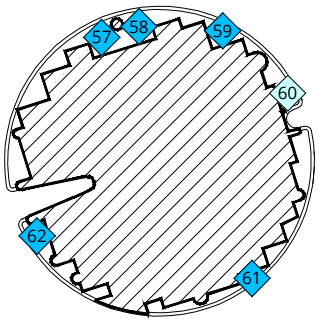

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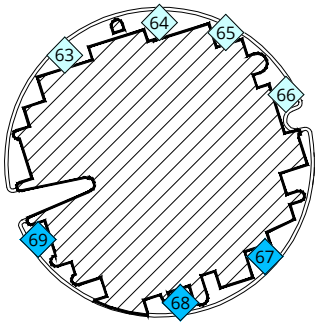

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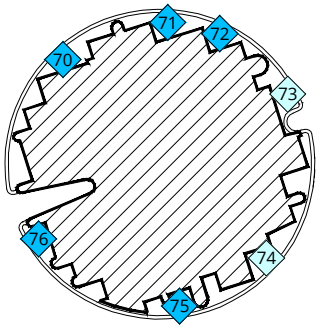

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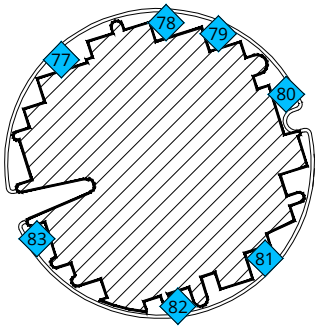

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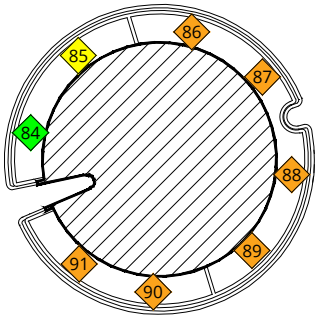


42 LEVEL FLOOR PLAN

LEGEND:

COMFORT CATEGORIES:

- Sitting
- Standing
- Strolling
- Walking
- Uncomfortable

SENSOR LOCATION:

- Podium Level
- Balconies
- Building Above Removed For Clarity

0 25 50m

Pedestrian Wind Comfort Conditions

Future Configuration

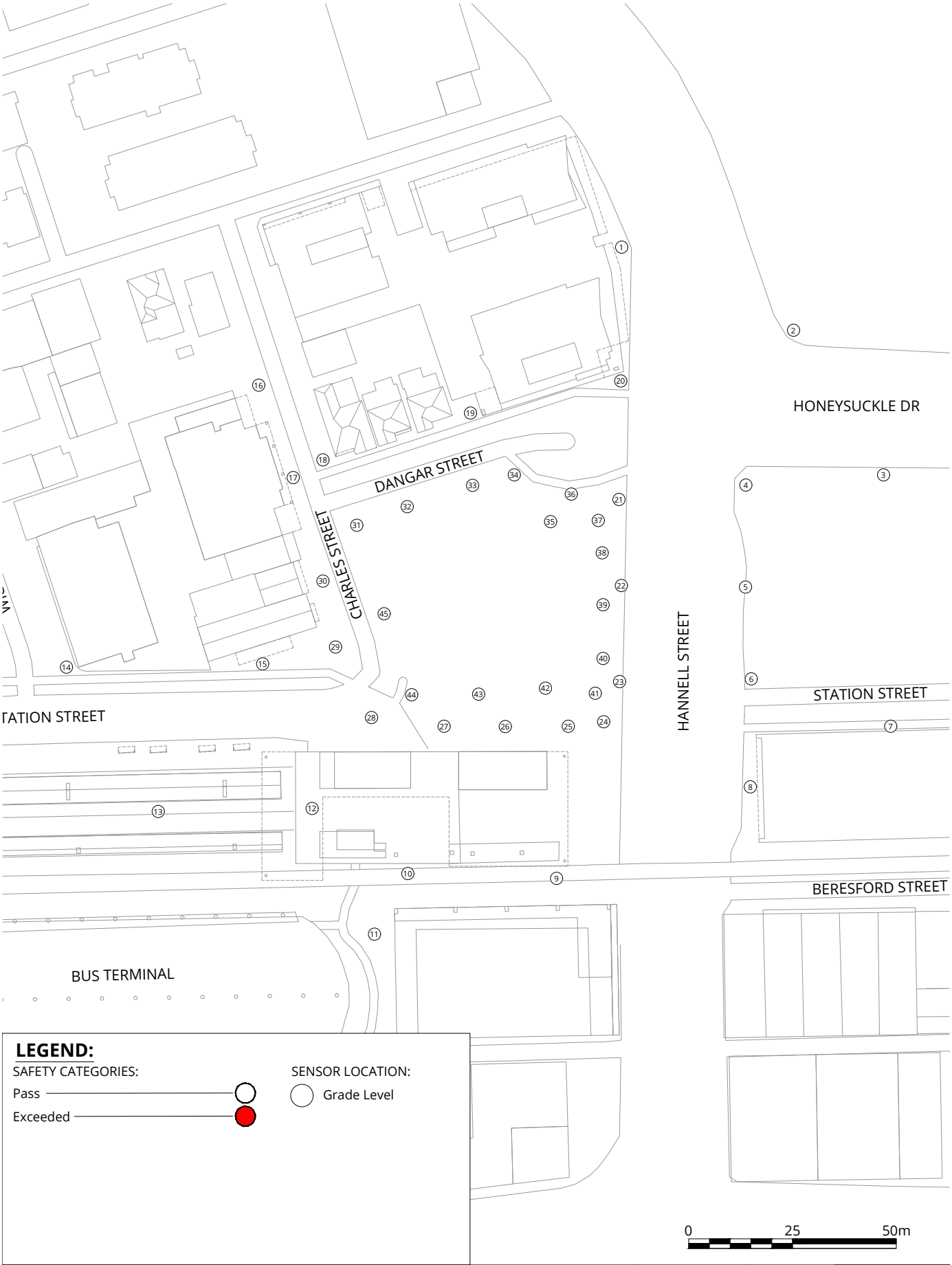
Annual (January to December, 0:00 to 23:00)

10 Dangar Street - Wickam, NSW

Project #2512651

True North

Drawn by:	SHJ	Figure:	1.2C
Approx. Scale:	1:1250		
Date Revised:	Mar. 12, 2026		



LEGEND:

SAFETY CATEGORIES:

Pass

Exceeded

SENSOR LOCATION:

Grade Level

Pedestrian Wind Safety Conditions

Existing Configuration

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

10 Dangar Street - Wickam, NSW

Project #2512651

True North

Drawn by:	SHJ	Figure:	2A
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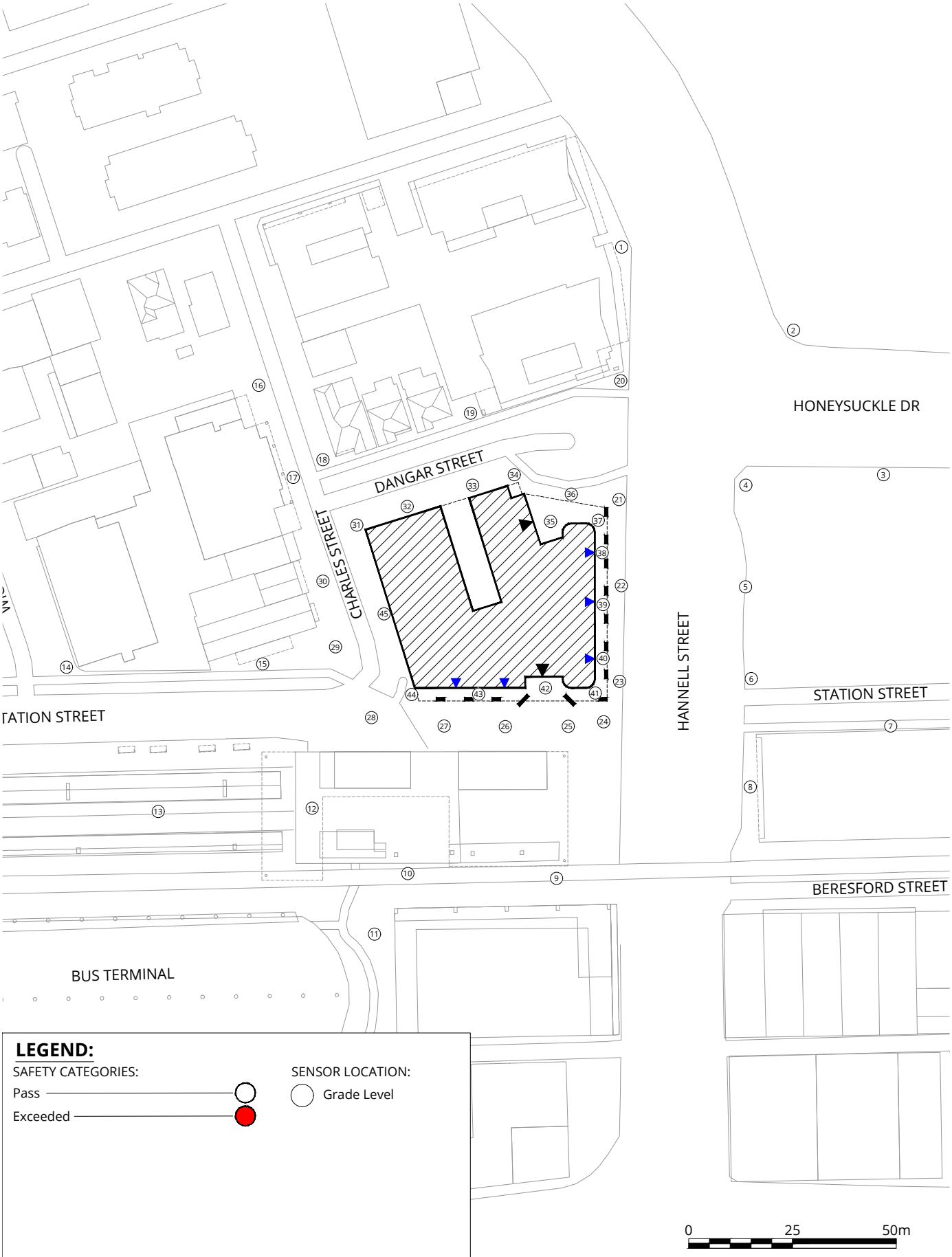

LEGEND:

SAFETY CATEGORIES:

Pass

Exceeded

SENSOR LOCATION:

Grade Level

Pedestrian Wind Safety Conditions

Proposed Configuration

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

10 Dangar Street - Wickam, NSW

Project #2512651

True North

Drawn by:	SHJ	Figure:	2.1B
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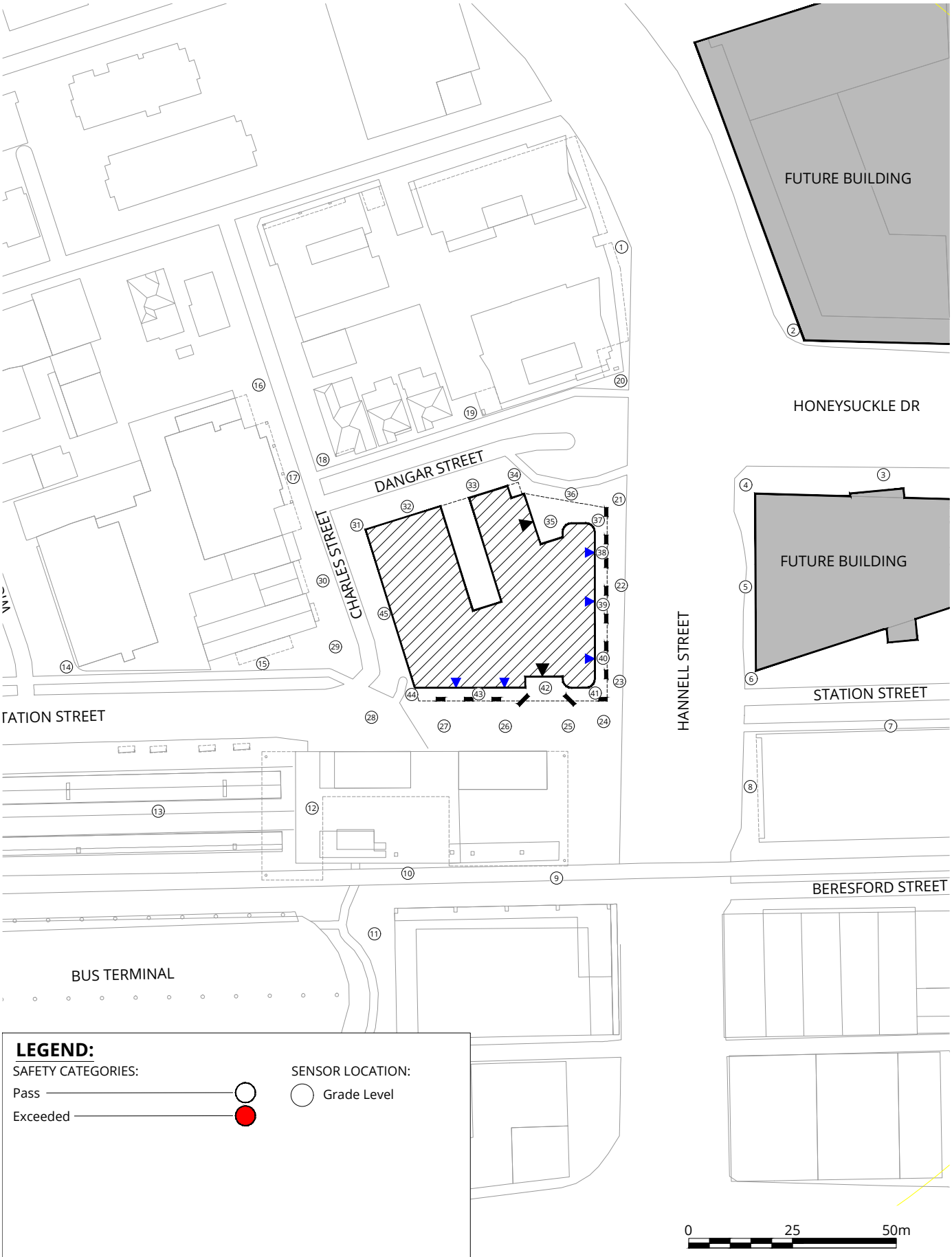

Pedestrian Wind Safety Conditions
Future Configuration
Annual (January to December, 0:00 to 23:00)

10 Dangar Street - Wickam, NSW

Project #2512651

True North

Drawn by: SHJ	Figure: 2.1C	
Approx. Scale: 1:1250		
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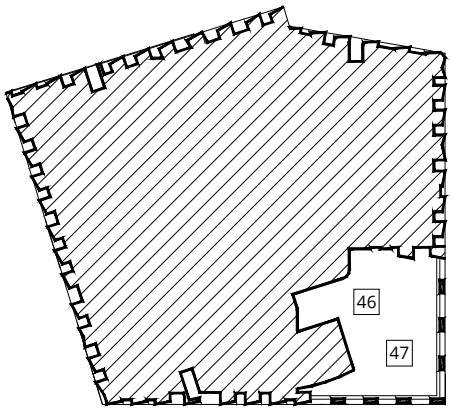

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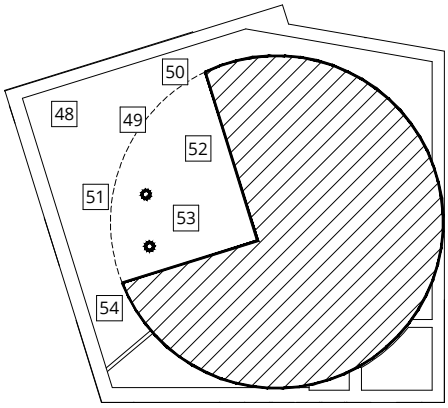

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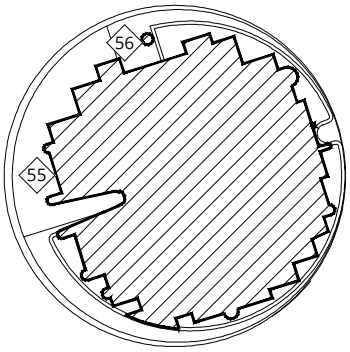

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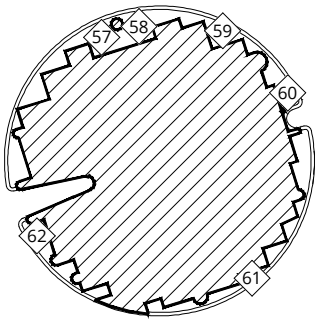

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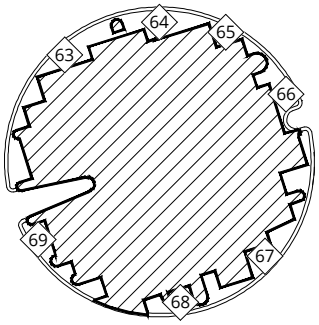

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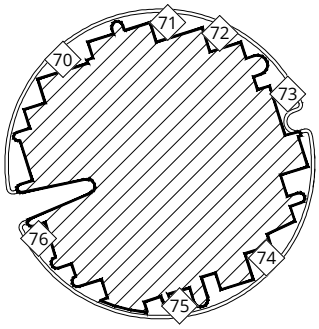

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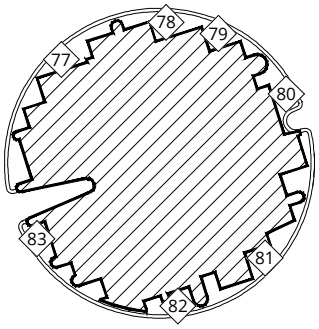

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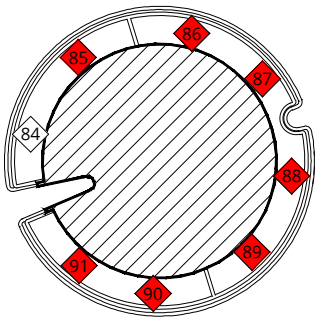


42 LEVEL FLOOR PLAN

LEGEND:

SAFETY CATEGORIES:

Pass

Exceeded

SENSOR LOCATION:

Podium Level

Balconies

Building Above Removed For Clarity

0 25 50m

Pedestrian Wind Safety Conditions

Proposed Configuration

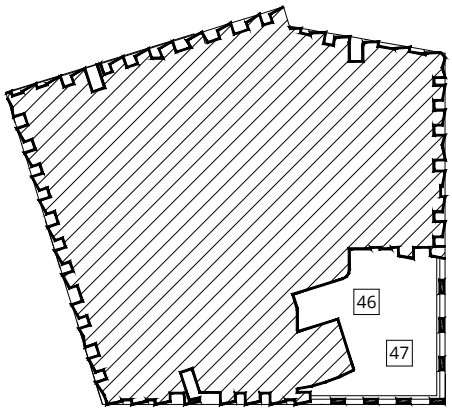
Annual (January to December, 6:00 to 23:00)

10 Dangar Street - Wickam, NSW

True North

Project #2512651

Drawn by:	SHJ	Figure:	2.2B
Approx. Scale:	1:1250		
Date Revised:	Mar. 12, 2026		



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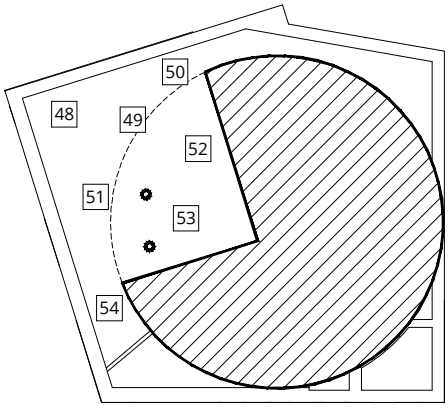

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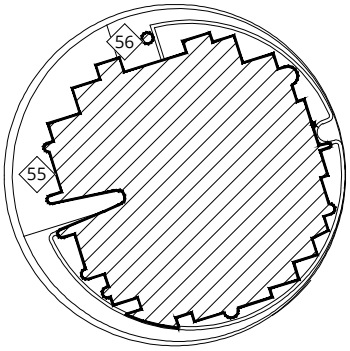

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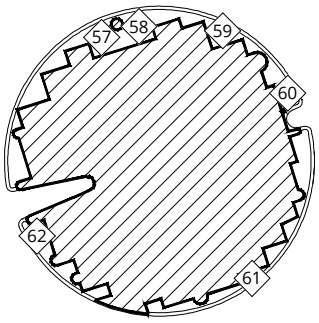

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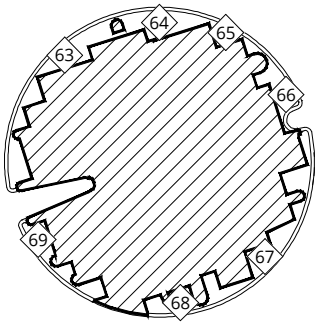

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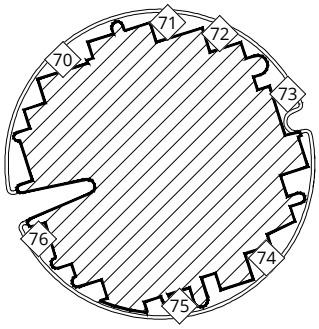

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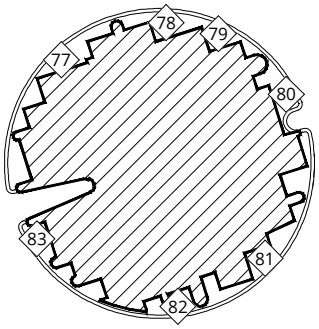

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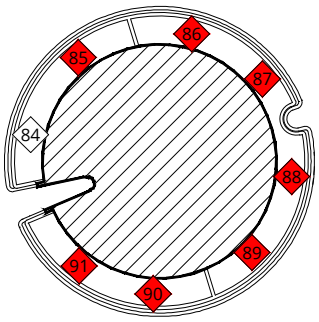

42 LEVEL FLOOR PLAN

LEGEND:

SAFETY CATEGORIES:

Pass

Exceeded

SENSOR LOCATION:

Podium Level

Balconies

Building Above Removed For Clarity

0 25 50m

Pedestrian Wind Safety Conditions

Future Configuration

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

10 Dangar Street - Wickam, NSW

Project #2512651

True North

Drawn by: SHJ	Figure: 2.2C
Approx. Scale:	1:1250
Date Revised:	Mar. 12, 2026

TABLES

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort		Wind Safety	
		Annual		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating
1	Existing	11	Standing	44	Pass
	Proposed	11	Standing	46	Pass
	Future	13	Standing	49	Pass
2	Existing	11	Standing	40	Pass
	Proposed	12	Standing	41	Pass
	Future	12	Standing	48	Pass
3	Existing	11	Standing	46	Pass
	Proposed	11	Standing	43	Pass
	Future	10	Sitting	49	Pass
4	Existing	11	Standing	38	Pass
	Proposed	12	Standing	40	Pass
	Future	11	Standing	45	Pass
5	Existing	12	Standing	48	Pass
	Proposed	12	Standing	51	Pass
	Future	14	Standing	64	Pass
6	Existing	10	Sitting	42	Pass
	Proposed	11	Standing	44	Pass
	Future	18	Walking	74	Pass
7	Existing	7	Sitting	32	Pass
	Proposed	7	Sitting	32	Pass
	Future	12	Standing	55	Pass
8	Existing	8	Sitting	36	Pass
	Proposed	10	Sitting	47	Pass
	Future	9	Sitting	41	Pass
9	Existing	11	Standing	47	Pass
	Proposed	12	Standing	49	Pass
	Future	12	Standing	49	Pass
10	Existing	11	Standing	44	Pass
	Proposed	10	Sitting	41	Pass
	Future	8	Sitting	38	Pass
11	Existing	14	Standing	64	Pass
	Proposed	14	Standing	61	Pass
	Future	12	Standing	57	Pass
12	Existing	12	Standing	49	Pass
	Proposed	12	Standing	51	Pass
	Future	11	Standing	48	Pass
13	Existing	8	Sitting	37	Pass
	Proposed	8	Sitting	36	Pass
	Future	8	Sitting	34	Pass
14	Existing	10	Sitting	43	Pass
	Proposed	12	Standing	48	Pass
	Future	12	Standing	50	Pass
15	Existing	10	Sitting	45	Pass
	Proposed	9	Sitting	39	Pass
	Future	8	Sitting	37	Pass
16	Existing	15	Strolling	62	Pass
	Proposed	15	Strolling	62	Pass
	Future	12	Standing	52	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort		Wind Safety	
		Annual		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating
17	Existing	11	Standing	47	Pass
	Proposed	10	Sitting	40	Pass
	Future	9	Sitting	38	Pass
18	Existing	14	Standing	65	Pass
	Proposed	13	Standing	56	Pass
	Future	12	Standing	54	Pass
19	Existing	11	Standing	50	Pass
	Proposed	12	Standing	62	Pass
	Future	9	Sitting	48	Pass
20	Existing	15	Strolling	60	Pass
	Proposed	15	Strolling	62	Pass
	Future	12	Standing	47	Pass
21	Existing	15	Strolling	56	Pass
	Proposed	16	Strolling	73	Pass
	Future	17	Strolling	72	Pass
22	Existing	13	Standing	48	Pass
	Proposed	12	Standing	49	Pass
	Future	17	Strolling	67	Pass
23	Existing	12	Standing	48	Pass
	Proposed	14	Standing	49	Pass
	Future	13	Standing	49	Pass
24	Existing	11	Standing	49	Pass
	Proposed	17	Strolling	62	Pass
	Future	13	Standing	61	Pass
25	Existing	11	Standing	48	Pass
	Proposed	15	Strolling	58	Pass
	Future	12	Standing	59	Pass
26	Existing	10	Sitting	40	Pass
	Proposed	14	Standing	59	Pass
	Future	13	Standing	54	Pass
27	Existing	12	Standing	44	Pass
	Proposed	17	Strolling	61	Pass
	Future	15	Strolling	56	Pass
28	Existing	13	Standing	48	Pass
	Proposed	14	Standing	60	Pass
	Future	14	Standing	55	Pass
29	Existing	12	Standing	47	Pass
	Proposed	14	Standing	58	Pass
	Future	12	Standing	48	Pass
30	Existing	10	Sitting	42	Pass
	Proposed	16	Strolling	64	Pass
	Future	12	Standing	51	Pass
31	Existing	11	Standing	44	Pass
	Proposed	15	Strolling	58	Pass
	Future	12	Standing	51	Pass
32	Existing	12	Standing	51	Pass
	Proposed	11	Standing	50	Pass
	Future	9	Sitting	46	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort		Wind Safety	
		Annual		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating
33	Existing	14	Standing	57	Pass
	Proposed	13	Standing	52	Pass
	Future	10	Sitting	45	Pass
34	Existing	15	Strolling	62	Pass
	Proposed	20	Walking	71	Pass
	Future	15	Strolling	65	Pass
35	Existing	14	Standing	52	Pass
	Proposed	7	Sitting	35	Pass
	Future	6	Sitting	28	Pass
36	Existing	15	Strolling	56	Pass
	Proposed	15	Strolling	73	Pass
	Future	13	Standing	64	Pass
37	Existing	14	Standing	55	Pass
	Proposed	14	Standing	65	Pass
	Future	15	Strolling	61	Pass
38	Existing	14	Standing	52	Pass
	Proposed	10	Sitting	42	Pass
	Future	12	Standing	48	Pass
39	Existing	13	Standing	47	Pass
	Proposed	11	Standing	42	Pass
	Future	13	Standing	47	Pass
40	Existing	12	Standing	46	Pass
	Proposed	11	Standing	48	Pass
	Future	11	Standing	41	Pass
41	Existing	12	Standing	51	Pass
	Proposed	15	Strolling	60	Pass
	Future	12	Standing	64	Pass
42	Existing	12	Standing	49	Pass
	Proposed	9	Sitting	37	Pass
	Future	9	Sitting	53	Pass
43	Existing	12	Standing	45	Pass
	Proposed	9	Sitting	38	Pass
	Future	9	Sitting	35	Pass
44	Existing	13	Standing	49	Pass
	Proposed	15	Strolling	59	Pass
	Future	13	Standing	53	Pass
45	Existing	11	Standing	45	Pass
	Proposed	10	Sitting	41	Pass
	Future	9	Sitting	38	Pass
46	Existing	6	Sitting	29	Pass
	Proposed	6	Sitting	27	Pass
	Future	5	Sitting	21	Pass
47	Existing	7	Sitting	32	Pass
	Proposed	8	Sitting	43	Pass
	Future	7	Sitting	29	Pass
48	Existing	7	Sitting	34	Pass
	Proposed	18	Walking	72	Pass
	Future	16	Strolling	64	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort		Wind Safety	
		Annual		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating
49	Existing	6	Sitting	30	Pass
	Proposed	16	Strolling	73	Pass
	Future	16	Strolling	66	Pass
50	Existing	7	Sitting	31	Pass
	Proposed	21	Uncomfortable	81	Pass
	Future	16	Strolling	66	Pass
51	Existing	7	Sitting	31	Pass
	Proposed	15	Strolling	81	Pass
	Future	16	Strolling	73	Pass
52	Existing	6	Sitting	30	Pass
	Proposed	6	Sitting	37	Pass
	Future	6	Sitting	28	Pass
53	Existing	6	Sitting	27	Pass
	Proposed	5	Sitting	25	Pass
	Future	5	Sitting	20	Pass
54	Existing	7	Sitting	33	Pass
	Proposed	14	Standing	64	Pass
	Future	15	Strolling	61	Pass
55	Existing	7	Sitting	34	Pass
	Proposed	8	Sitting	45	Pass
	Future	8	Sitting	45	Pass
56	Existing	7	Sitting	35	Pass
	Proposed	8	Sitting	30	Pass
	Future	7	Sitting	28	Pass
57	Existing	8	Sitting	38	Pass
	Proposed	9	Sitting	36	Pass
	Future	9	Sitting	39	Pass
58	Existing	8	Sitting	35	Pass
	Proposed	10	Sitting	59	Pass
	Future	10	Sitting	58	Pass
59	Existing	7	Sitting	34	Pass
	Proposed	9	Sitting	38	Pass
	Future	10	Sitting	46	Pass
60	Existing	7	Sitting	29	Pass
	Proposed	12	Standing	58	Pass
	Future	12	Standing	59	Pass
61	Existing	8	Sitting	37	Pass
	Proposed	9	Sitting	49	Pass
	Future	10	Sitting	44	Pass
62	Existing	7	Sitting	31	Pass
	Proposed	10	Sitting	53	Pass
	Future	9	Sitting	49	Pass
63	Existing	7	Sitting	30	Pass
	Proposed	14	Standing	78	Pass
	Future	13	Standing	76	Pass
64	Existing	6	Sitting	27	Pass
	Proposed	11	Standing	48	Pass
	Future	13	Standing	51	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort		Wind Safety	
		Annual		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating
65	Existing	7	Sitting	32	Pass
	Proposed	9	Sitting	35	Pass
	Future	11	Standing	52	Pass
66	Existing	7	Sitting	30	Pass
	Proposed	12	Standing	63	Pass
	Future	13	Standing	56	Pass
67	Existing	8	Sitting	35	Pass
	Proposed	10	Sitting	59	Pass
	Future	10	Sitting	58	Pass
68	Existing	8	Sitting	34	Pass
	Proposed	8	Sitting	46	Pass
	Future	8	Sitting	44	Pass
69	Existing	7	Sitting	29	Pass
	Proposed	11	Standing	58	Pass
	Future	10	Sitting	58	Pass
70	Existing	6	Sitting	27	Pass
	Proposed	8	Sitting	46	Pass
	Future	8	Sitting	46	Pass
71	Existing	7	Sitting	28	Pass
	Proposed	7	Sitting	27	Pass
	Future	7	Sitting	29	Pass
72	Existing	7	Sitting	31	Pass
	Proposed	8	Sitting	29	Pass
	Future	9	Sitting	39	Pass
73	Existing	6	Sitting	27	Pass
	Proposed	11	Standing	60	Pass
	Future	13	Standing	60	Pass
74	Existing	7	Sitting	31	Pass
	Proposed	9	Sitting	52	Pass
	Future	11	Standing	59	Pass
75	Existing	7	Sitting	31	Pass
	Proposed	7	Sitting	43	Pass
	Future	8	Sitting	43	Pass
76	Existing	6	Sitting	28	Pass
	Proposed	9	Sitting	52	Pass
	Future	9	Sitting	50	Pass
77	Existing	7	Sitting	28	Pass
	Proposed	7	Sitting	47	Pass
	Future	7	Sitting	47	Pass
78	Existing	7	Sitting	30	Pass
	Proposed	7	Sitting	29	Pass
	Future	6	Sitting	28	Pass
79	Existing	7	Sitting	32	Pass
	Proposed	7	Sitting	28	Pass
	Future	7	Sitting	28	Pass
80	Existing	7	Sitting	29	Pass
	Proposed	10	Sitting	44	Pass
	Future	10	Sitting	51	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort		Wind Safety	
		Annual		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating
81	Existing	6	Sitting	26	Pass
	Proposed	7	Sitting	43	Pass
	Future	7	Sitting	46	Pass
82	Existing	6	Sitting	28	Pass
	Proposed	6	Sitting	34	Pass
	Future	7	Sitting	34	Pass
83	Existing	7	Sitting	32	Pass
	Proposed	7	Sitting	40	Pass
	Future	7	Sitting	40	Pass
84	Existing	7	Sitting	27	Pass
	Proposed	15	Strolling	83	Pass
	Future	15	Strolling	82	Pass
85	Existing	7	Sitting	29	Pass
	Proposed	20	Walking	94	Exceeded
	Future	19	Walking	94	Exceeded
86	Existing	7	Sitting	27	Pass
	Proposed	22	Uncomfortable	96	Exceeded
	Future	21	Uncomfortable	93	Exceeded
87	Existing	7	Sitting	30	Pass
	Proposed	26	Uncomfortable	99	Exceeded
	Future	26	Uncomfortable	96	Exceeded
88	Existing	8	Sitting	36	Pass
	Proposed	30	Uncomfortable	104	Exceeded
	Future	30	Uncomfortable	105	Exceeded
89	Existing	6	Sitting	25	Pass
	Proposed	27	Uncomfortable	99	Exceeded
	Future	27	Uncomfortable	99	Exceeded
90	Existing	7	Sitting	30	Pass
	Proposed	26	Uncomfortable	106	Exceeded
	Future	26	Uncomfortable	106	Exceeded
91	Existing	7	Sitting	34	Pass
	Proposed	28	Uncomfortable	115	Exceeded
	Future	28	Uncomfortable	116	Exceeded

Season	Months	Hours	Comfort Speed (km/h)	Safety Speed (km/h)
Annual	January - December	6:00 - 23:00 for comfort	(20% Seasonal Exceedance)	(0.1% Annual Exceedance)
		0:00 - 23:00 for safety	≤ 10 Sitting	≤ 83 Pass
			11 - 14 Standing	> 83 Exceeded
Configurations			15 - 17 Strolling	
Existing	Existing site and surroundings		18 - 20 Walking	
Proposed	Project with existing surroundings		> 20 Uncomfortable	
Future	Project with future surroundings			