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MEMORANDUM

DATE:	11 March 2026	**RWDI REFERENCE #:** 2512278
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FROM:	Raymond Lau	**Email:** raymond.lau@rwdi.com
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RE:	**Waterloo Metro Quarter** **Pedestrian Wind – Response to DPHI RFI** **RWDI Project #2512278**	

This technical memo has been prepared by RWDI Australia Pty Ltd (RWDI) in relation to the Waterloo Metro Quarter development located at 150 Cope Street, Waterloo. RWDI prepared the Wind Impact Assessment Report (RWDI Project No. 2512278, SSDA Pedestrian Wind Environment Report, dated 24 September 2025) for the development based on comprehensive wind tunnel testing of the pedestrian wind conditions on and around the site. The assessment was submitted as part of the State Significant Development Application for the following SSDs:

- Second Amending Concept (SSD-79307765)
- Northern Precinct (SSD-79307758)
- Central Precinct (SSD-79307746)

The Proponent has received feedback from the Department of Planning, Housing and Infrastructure (DPHI) in the form of a Request for Further Information (RFI) following the submission and exhibition of the abovementioned wind report. The relevant RFI items are provided below for reference:

6. Wind Impacts

a) Provide design solutions and/or mitigation measures that achieve wind comfort outcomes suitable for the intended uses without solely relying on awnings or planting, and consider the following areas:

a. a sitting criteria for the proposed licensed seating areas on the western ground floor elevation of the Central Precinct (Sensor locations 51, and 53),

including incorporation of wind screens and balustrades as stated in section 3.5.1 of the Wind Impact Assessment (Appendix I)

b. *a standing criteria for Grit Lane between Botany Road and the southern station entrance (Sensor locations 25, 50 and 52)*
c. *a standing criteria for the corner of Botany Road and Raglan Street (Sensor locations 59, 60 and 62)*
d. *a sitting criteria for podium and rooftop spaces where outdoor seating / dining and kitchen / study areas are proposed (Sensor locations 124, 125, 128, 129, 130 and 131).*

b) *Demonstrate the proposal would meet the requirements of Condition B14 of the Concept Approval requiring wind comfort, standing criteria to waiting zones at crossings of intersections (e.g. Sensor locations 4, 38 and 61 in the Wind Impact Assessment), including on the opposite sides of the streets.*

Also relevant to the RFI is the Concept Approval (SSD 9393) Wind Impact Assessment Condition B14 which reads as follows:

> *B14. The Wind Impact Assessment must consider the locations of existing and future pedestrian crossings and apply standing criteria zones to match the width of crossings and the waiting zones for crossings, including on the opposite side of streets.*

Response to RFI Item 6a (a – c)

In response to the RFI item 6a (a-c), reference is made to the Waterloo Metro Quarter Design and Amenity Guidelines which provides "Objectives" and "Design Criteria" to be met by the Proposed Development as well as "Design Guidance" to assist in achieving these targets. This guidance reads:

> *1. Wind impacts should be managed through built form massing, **where possible**, rather than relying solely on mitigation measures such as awnings and planting.*

Consistent with this, the project underwent an extensive wind-informed design process involving RWDI, Woods Bagot, Bates Smart, and Aspect Studios where the early design massing was explored and developed to provide the best possible outcome for wind performance and other design constraints such as solar access/reflectivity and natural ventilation. This design was further developed as part of the current SSDA in consultation with the NSW State Design Review Panel (SDRP) through an in-depth process including SDRP design meetings where design features such as awnings and intent were discussed.

The final built form tested was the result of the above iterative design collaboration and provided a positive outcome for the precinct. The design was observed to achieve the required criteria from the Design and Amenity Guidelines with only the built form massing for majority of the areas.

For areas where residual exceedances were identified, targeted wind mitigation measures were recommended to supplement the built form strategies and included screening within Church Square and Grit Lane as well as planting throughout the site. The current design of the Proposed Development with the inclusion of these proposed measures is expected to satisfy the criteria requirements of the Design and Amenity Guidelines for most of the zones within the proposed site. The below image and table show the percent of time suitable for the required criteria at the sensor locations relevant to RFI Item 6a (a-c) for the Built Form Only and also with Included Landscaping.

Note the achievement of these required wind conditions are not solely reliant on these additional measures but primarily as a result of the built form massing design including tower setbacks, generous laneways, corner articulation, increased tower separation and other design features borne from the in-depth design process. An example of these features are the awnings that exist throughout the design which fulfill other amenity requirements in addition to addressing wind impacts. In principle mitigation measures were provided for the outstanding areas within Grit Lane to bring the conditions to within standing as required by Design and Amenity Guidelines. These included screening and balustrades within the area as shown in Image 9 of the report, Appendix I - Wind Impact Assessment as submitted as part of SSD-79307746 and SSD-79307758.

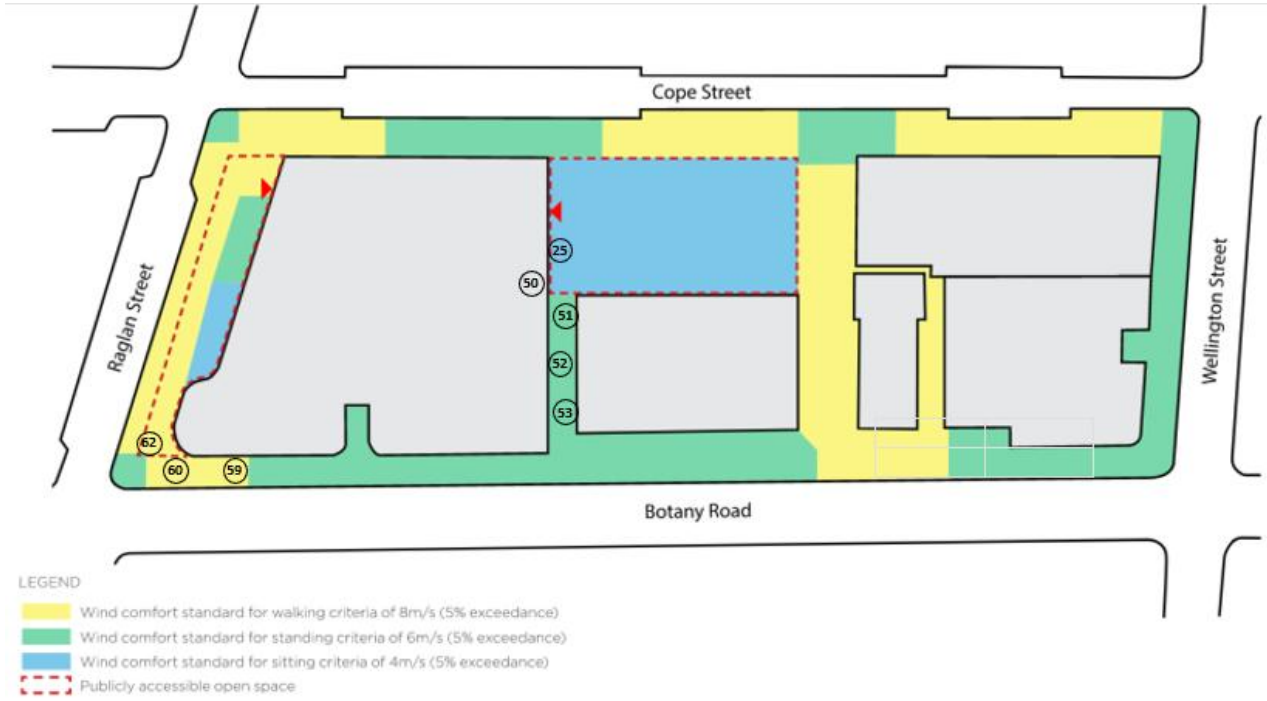


Figure 20 – Wind comfort and safety targets (ground level)

Sensor Location	Design Amenities Guideline Criteria	% of Time Suitable (Target 95%)		Compliance / Comment
		Built Form	Include Landscape	
51	Standing	83	86	Proposed screening expected to meet criteria.
53	Standing	88	92	
25	Sitting	79	81	This sensor meets walking criteria, but over 50% of the open space meets sitting criteria as per the guideline.
50	Internal of Building	83	86	The former internal, covered area is now an open-to-sky laneway designed to walking criteria.
52	Standing	88	92	Minor shortfall at 92%, though areas immediately west meet standing criteria
59	Walking	98	99	Achieved & Exceed Criteria
60	Walking	92	98	Achieved & Exceed Criteria
62	Walking	98	100	Achieved & Exceed Criteria

Target Criteria Zone from Design and Amenity Guidelines with % of Time suitable for target criteria

Response to RFI Item 6a (d)

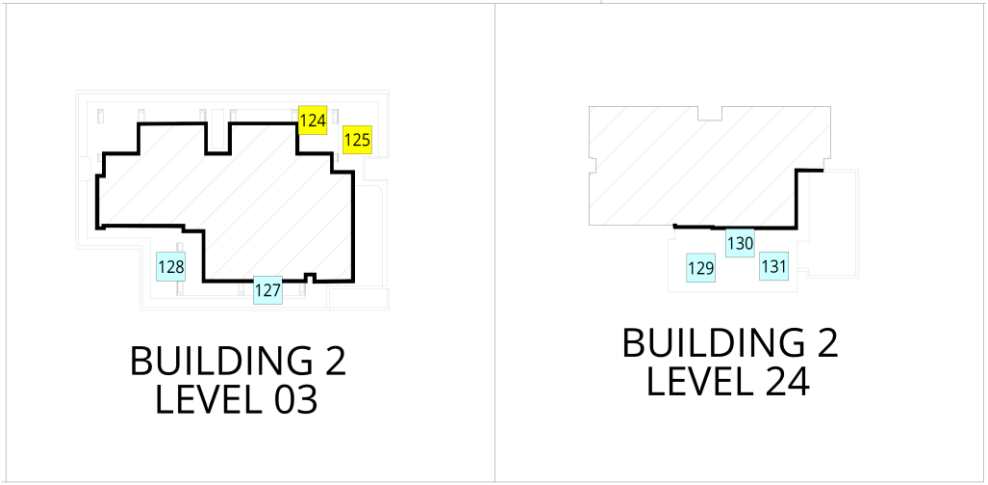
Elevated terrace and rooftops are not governed by the public-domain criteria zones of the Design and Amenity Guidelines. Nonetheless, RWDI assessed these areas using appropriate comfort targets based on intended uses. These targets are achieved through the inclusion of awnings, balustrades, and landscape elements that form part of the inherent amenity and design intent of these terraces, rather than being added solely for wind mitigation purposes. a

The diagrams and table below summarise application of use-specific Design Comfort Targets to each sensor location across the Level 03 terrace and Level 24 rooftop. The selected targets — Walking, Standing, or Sitting, reflect the intended function of each space, including movement zones, low-impact sport areas, BBQ/gathering areas, and outdoor seating/study spaces.

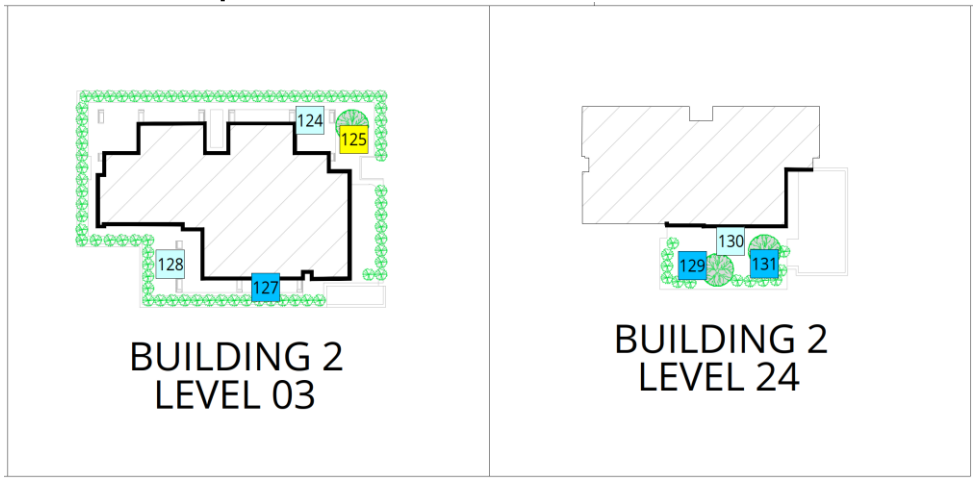
The results show that once the as-designed landscape, awnings, and balustrades are included, all locations achieve or exceed the 95% suitability target for their intended use. Areas not designed for seating (e.g., tree zones or low-impact sport areas) were appropriately assessed using Walking or Standing criteria, and these also meet target conditions.

Overall, the information confirms that the wind environment on both terrace levels has been carefully considered and is suitable for the proposed uses, with comfort performance achieved through the inherent design and amenity strategy of the project.

Built Form Only



Include Landscape



Sensor Location	Design Amenities Guideline Criteria	Design Comfort Target Appropriate to the Use of the Space	% of Time Suitable (Target 95%)		Compliance / Comment
			Built Form	Include Landscape	
124	n/a	Standing	88	97	Intended use is low-impact sport zone; no seating, meets criteria.
125	n/a	Walking	96	99	Area allocated for a large tree beside low-impact sport use; not intended for seating, meets criteria.
128	n/a	Standing	98	98	Achieved & Exceed Criteria
129	n/a	Sitting	89	98	Achieved & Exceed Criteria
130	n/a	Standing	98	99	Area in front of the core wall is the BBQ zone, a gathering area that meets & exceed standing criteria
131	n/a	Sitting	91	97	Achieved & Exceed Criteria

Comfort Levels of Elevated areas and % of Time suitable for target criteria

Response to RFI Item 6b: Compliance with Condition B14

Condition B14 of the Concept Approval requires standing use comfort at the waiting zones at crossings of intersections represented by sensor locations 4, 38 and 61. With only the built form, standing use conditions were already achieved at location 4 and at location 38, standing criteria is achieved for 94% of the time (95% target). The results of the wind tunnel testing for the Mitigation Configuration, including landscaping at these locations that is included in the current design of the Proposed Development, presented in the wind report shows that sitting to standing conditions are achieved in these locations. This satisfies both the WMQ guidelines as well as Condition B14.

Conclusion

The current design of the Proposed Development is already meeting the Objectives and Design Criteria of the Design and Amenity Guidelines as well as Condition B14 of the Concept Approval in the majority of spaces. It is our opinion that the design is capable of providing appropriate wind comfort and amenity throughout the entire precinct with consideration of the in-principal mitigation strategies presented.