



107 High St Pty Ltd

24 March 2026

Ref: 30N-24-0442-TRP-135121-1

Level 1, 85 Union St Armadale, Victoria, 3143, Australia

Dear Ben Cribb,

107-123 High Street, Belmont, Geelong

Vipac Engineers and Scientists completed a Desktop Wind Impact Assessment and issued the report in November 2025 for the proposed development at 107-123 High Street, Belmont, Geelong (30N-24-0442-TNT-102995-1). The council required a wind tunnel test be a permit condition at this stage. Vipac insists the previous assessment conclusions and recommendations, and believes that the desktop assessment is sufficient at this stage.

Below is a detailed analysis of the wind impacts on 107-123 High Street, Belmont, Geelong. The original discussion and recommendations from the report 30N-24-0442-TNT-102995-1 is shown in Appendix A.

Discussion & Recommendations

The proposed development is exposed to the prevailing winds from the southerly to the northerly directions (as shown in figure 4 of the report 30N-24-0442-TNT-102995-1). The proposed development benefits from the neighbouring buildings located immediately in the southern to northern (excluding the south-western) directions, as these neighbouring buildings provide shielding from the prevailing winds on to the ground level areas of the project development.

The prevailing winds are expected to channel along High Street and Waterloo Street from the south-westerly directions and impact the proposed development at ground level areas in the north-western and south-eastern aspects in the form of direct winds. With the inclusion of the proposed landscaping along ground level pedestrian footpath and the building entrance setback, the impacts from the channelling flow are expected to be within the recommended safety and comfort criteria.

The prevailing north-westerly winds from the upper levels are expected to impact the north-western aspects of the building façade and downwash onto the ground level areas near High Street. Given that the building height is around 27.5m, these downwash flows are not expected to be as intense as compared to buildings that are significantly taller. The proposed development incorporates impermeable canopies along the north-western aspects on ground level areas. With the retention of these impermeable canopies and the podium to tower setback the downwash flow onto ground level areas is expected to be mitigated and the pedestrian footpath within High Street is expected to be suitable for its intended use.

The prevailing south-westerly winds from the upper levels are expected to impact the south-western aspects of the building façade and downwash onto ground level areas near the Bitumen Carpark. Due to the height of the proposed development, this adverse wind affect is not expected to be intense to cause safety or comfort concerns. With the retention of the podium to tower setback on the south-western aspects and impermeable canopy on the ground level area (on the south-western aspects), this wind affect is expected to be mitigated and the pedestrian footpath within Bitumen Carpark is expected to be suitable for its intended use.

The prevailing north-westerly winds are expected to channel and accelerate onto the Open Communal Space on level 1. This accelerated flow is expected to cause adverse wind conditions. With the inclusion of the 1.5m high impermeable balustrade as shown in figure 14 of the report 30N-24-0442-TNT-102995-1, this adverse wind condition is expected to be mitigate and thus the level 1 Open Communal Space is expected to be suitable for its intended use.

The townhouses located on the south-eastern aspects of the proposed development are exposed to the prevailing winds. It should be noted that the proposed development (specifically, the 7 storey high buildings) provides shielding from direct winds to the townhouses on ground level areas. However, the northerly, south-westerly and southerly winds are still expected to have some impacts on the townhouse trafficable areas. These winds are expected to channel along Waterloo Street and impact the front lawn and POS areas in the form of direct winds. With the inclusion of the porous balustrade, proposed landscaping and porous and impermeable walls, these areas are expected to be suitable for their intended use.

There are developments higher in height than the proposed development which underwent wind tunnel study and fulfilled the comfort and safety criteria without the need for any wind control measures especially modifications to the built form. The following two developments are an example of this

1. 35 Corio Street, Geelong (building height of 58m)
2. 10-18 Brougham Street, Geelong (building height of 50m)

The two developments mentioned above are significantly taller when compared to the proposed development (107-123 High Street, Belmont, Geelong) and thus the environmental wind conditions within the proposed development are expected to be suitable for its intended use when in comparison. Simple wind control measures other than built form modification to fix possible issues as mentioned above are sufficient.

In conclusion, a wind tunnel study is not necessary in this early design stage.



Samuel Gewargis
Project Engineer



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Principal Engineer

APPENDIX A

SECTION 3 - DISCUSSION & RECOMMENDATIONS

Due to the proposed height above the surrounding areas, the proposed development is particularly exposed to adverse northwestern winds due to downwash, such that high wind levels are expected along High Street. However, the proposed canopy and tower set back design are expected to mitigate this adverse wind effects. The footpaths are expected to have wind conditions within walking criterion and main entrances could achieve standing wind conditions.

The entrance at the corner might be expected to have high wind conditions. It is recommended to relocate the entrance away from the corner (Figure 11).

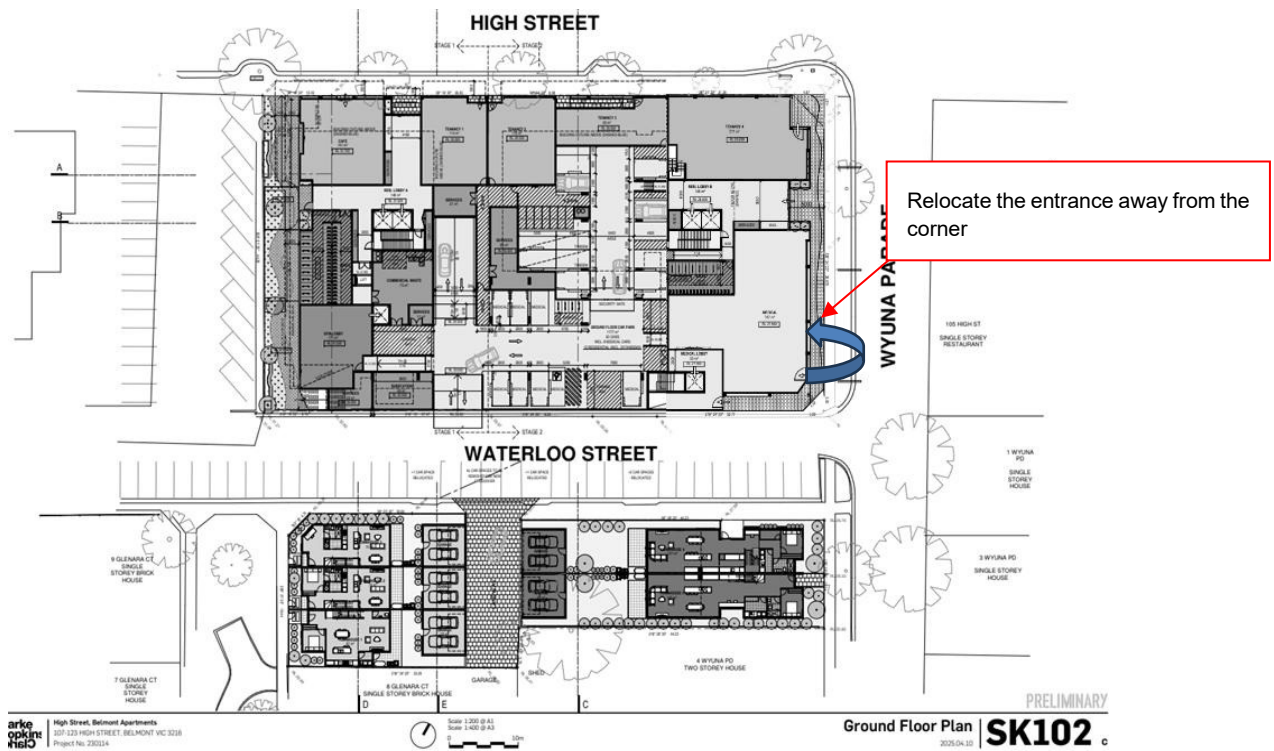


Figure 11: ground floor plan with the recommended wind control measures overlaid.

The proposed landscaping of the communal terrace at level 1 is expected to be beneficial to the wind conditions. However, the landscaping or balustrade at the outer edges of the communal terraces are recommended at least 1.5 m high to shelter the areas within the standing wind criterion (Figure 12).

The private terraces/ balconies are expected to fulfil the recommended walking criterion in general.

The gust wind speeds are expected to be within the safety criterion.

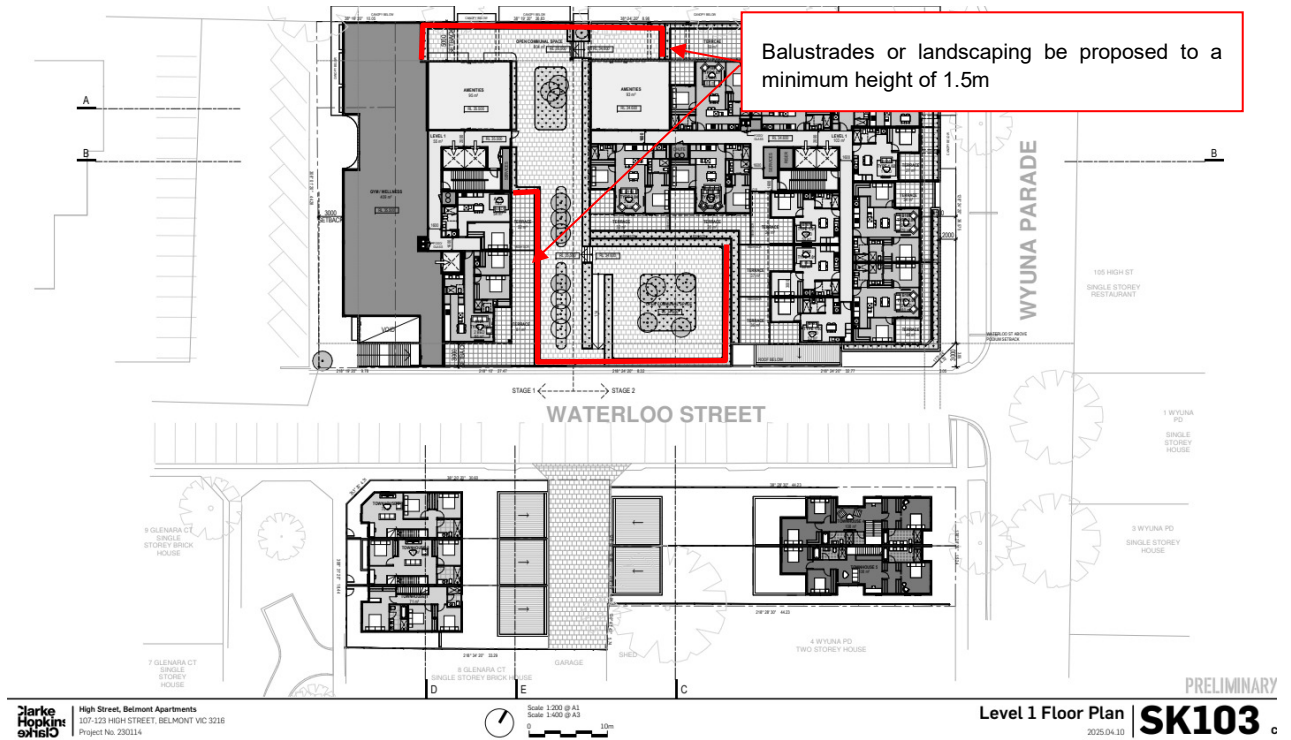


Figure 14: Level 9 plan with the recommended wind control measures overlaid.

It should be noted that this study is based on experience only and has not utilised any experimental data for the analysis. Vipac recommends that a scaled wind tunnel study or CFD simulation be undertaken in the detail design stage as a permit condition to quantify the wind conditions and verify appropriate wind control measures, where necessary.