

Memorandum

To:
Company: Auckland Council
From: Pierre Verhaeghe
Date: 14 April 2026 Project No: 145828.16
Subject: Downtown Carpark Site Development | Environmental Winds | S67 RFI

Introduction

This memorandum is in response to the Wind item #34 of Section 67 RFI document from Auckland Council dated 26th March.

Responses

a. Comparison Existing without Landscaping & Proposed with Landscaping

It is correct that the existing configuration did not include the existing landscaping. However, we do not consider this affects our conclusions.

In terms of the Auckland Unitary Plan (AUP) requirements, the comparison between Existing and Proposed (with mitigation measures) is effectively critical in one area only, at the north end of Lower Hobson Street. In this area, the existing exceedance at Sensor 42 is significant, i.e. it is well above the threshold of Category D and well above the threshold of the gust criteria. Whilst the addition of the existing landscaping may improve the reported conditions slightly, existing conditions would remain in Category D and the gust criteria would continue to be exceeded. This is expected to be also the case at the Corner of M-Social (Sensor 41).

In all other areas, conditions satisfy the AUP requirements in that conditions are shown to be acceptable for the use of the area, and the assessment effectively does not need comparison with the existing conditions. The only exceptions to this are the Category D conditions at Sensor 18 and 26, which are discussed further below.

b. Areas of Category D Conditions

There are three areas of Category D conditions, which represent a potential infringement to the AUP requirements:

- *AREA 1 (Sensor 8-9): Lower Hobson Street – North-west corner of P2.* Category D conditions are similar (or even calmer) to the existing conditions currently occurring slightly further north (Sensor 42). The effect of the proposed Development is therefore to shift the existing area of peak windiness occurring near M-Social slightly further south, closer to the corner of P2. In other words, the increase in windiness around Podium P2 is balanced by a reduction of windiness around M-Social (Sensor 42 and 41).

Alternative mitigation measures have been assessed in several wind tunnel tests and in collaboration with the design team, as reported in Appendix A of the Holmes report. It was clearly established from that testing that larger canopies or other potentially feasible measures on site were not found to be effective in improving conditions in Area 1 further. Wind mitigation measures need to be positioned at the north end of Lower Hobson.

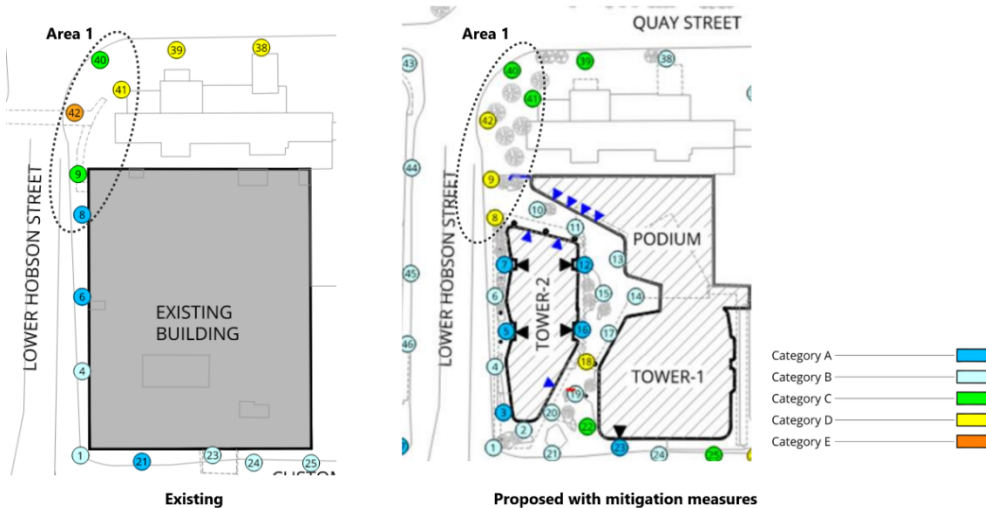


Figure 1: Wind Conditions in Area 1

- AREA 2 - Throat between P1 and P2 (Sensor 18).** The conditions are categorised as Category D but the exceedance of the threshold is marginal only, i.e. conditions are almost in Category C. These conditions are local only, i.e. conditions either side of the throat improve significantly. We also confirm this area is for pedestrian transit and is not considered sensitive for comfort. Again, various additional screens were investigated with no effect (Appendix A of Holmes report). Our conclusion was that only further screens specifically located at the throat would improve conditions more, which would not allow pedestrians' movement, and therefore were not feasible.

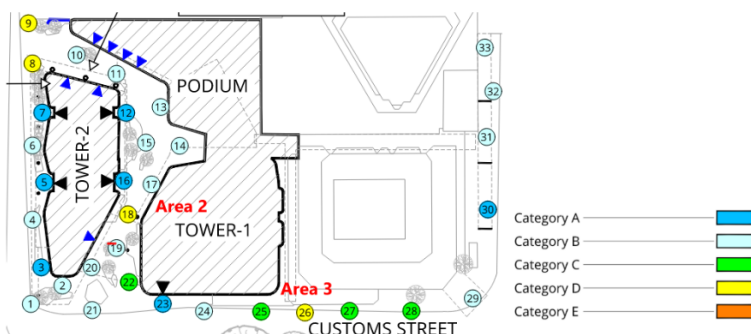


Figure 2: Wind Conditions in Area 2&3

- AREA 3 – P1 south-east corner Custom Street (Sensor 26).** The Category D area is very local and conditions immediately either side (Sensor 25 and 27) are in Category C. This is not considered a significant effect, given that the use of this footpath space is for walking only.

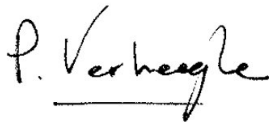
General note on Category D conditions: The wind categories are a useful description of windiness but are in fact based on full statistical distributions. As such, Category D conditions do not mean that conditions will always be windy and uncomfortable. It means during a year there will be more days when conditions would feel windy for walking than for an area of Category C conditions, noting also that Category D conditions are not considered a safety issue. Category D conditions are not unusual on the waterfront around building corners, as shown for example in Sensor 39, 38, 41 or 61, for example, but would also occur further east along Quay Street.

c. Category D Conditions in the Narrowest Section of Urban Room

As above, we confirm that the narrowest section of Urban Room is primarily for pedestrian transit. It is considered acceptable as conditions improve significantly either side of the throat. As above, alternative mitigation measures were considered but were not found to be effective. The conclusion was that additional mitigation on the north or south side of the throat would not improve the local conditions unless positioned exactly under the bridge and impeding pedestrian movement, which was not considered feasible.

d. Feasibility of Mitigation Measures

All the wind tunnel tests have been completed in collaboration with the design team, architects, landscape architects and the developer. We confirm that the trees proposed for mitigation are all considered feasible measures.

A handwritten signature in black ink, reading "P. Verhaeghe". The signature is written in a cursive style with a horizontal line underneath the name.

Pierre Verhaeghe
TECHNICAL DIRECTOR
Holmes NZ LP

Copies to: