



**Vipac Engineers and Scientists Limited**

279 Normanby Rd, Port Melbourne, VIC 3207, Australia

Private Bag 16, Port Melbourne, VIC 3207, Australia

t. +61 3 9647 9700 | f. +61 3 9646 4370 | e. melbourne@vipac.com.au

w. www.vipac.com.au | A.B.N. 33 005 453 627 | A.C.N. 005 453 627

City of Yarra

12/08/2020

Corner Moor and Napier Street  
Fitzroy, Australia

Ref: 30N-20-0180-GCO-6787942-0

**Attention: Amy Hodgen**

Dear Amy,

81 Latrobe Avenue, Alphington

This peer review of the MEL Consultants Environmental Wind Speed Measurements report (MEL Consultants Report 165-19-WT-ENV-03) is based on Vipac's experience as a wind-engineering consultancy.

Vipac have reviewed the relevant documents (see the received file names in the attachment). Our comments are as follows:

- i. The MEL Consultants Environmental Wind Speed Measurements report has been prepared based on a 1:400 scaled model wind tunnel test. The report includes the following main Sections: Environmental Wind Criteria, Model and Experimental Techniques, Discussion of Results and Conclusions. Detailed test data were presented in the Figures section.
- ii. The report has used the assessment criteria for Melbourne areas developed by MEL Consultants. Vipac has no issues with this, and believe that the criteria is in line and comparable with the council and DELWP guidelines.
- iii. In the Model and Experimental Techniques section, a 500m minimum radius proximity model was used and is substantially correct. The Terrain Category 3 exposure was used in the assessment; this was also appropriate.
- iv. The other methodologies described in the report, including use of hot-wire sensors; measurement wind direction intervals (22.5°); and data analysis are also deemed appropriate.
- v. In the Discussion of Results section, the report clearly addressed the wind condition results street by street around the development. The test identified the problem areas and rectified them with the recommended wind control measures. Measurements found that for the configuration with the wind control treatments (a continuous 3 m canopy along the north and west face of Buildings A and B), all tested areas had wind levels within the recommended comfort criteria or similar to the existing conditions, as detailed in the report.
- vi. The report concluded that the wind conditions at the Level 10 terrace of Building B with a 1.6 m high balustrade have been shown to be within the walking comfort criterion for all wind directions. However, this is not consistent with the results of polar plot in the report which

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shows that Location T1 measured wind speeds exceeding the walking criterion for westerly winds (see Figure 1 below, cited from the report). MEL Consultants should clarify if these results are correct, and if so, additional wind control measures may be necessary to rectify this.

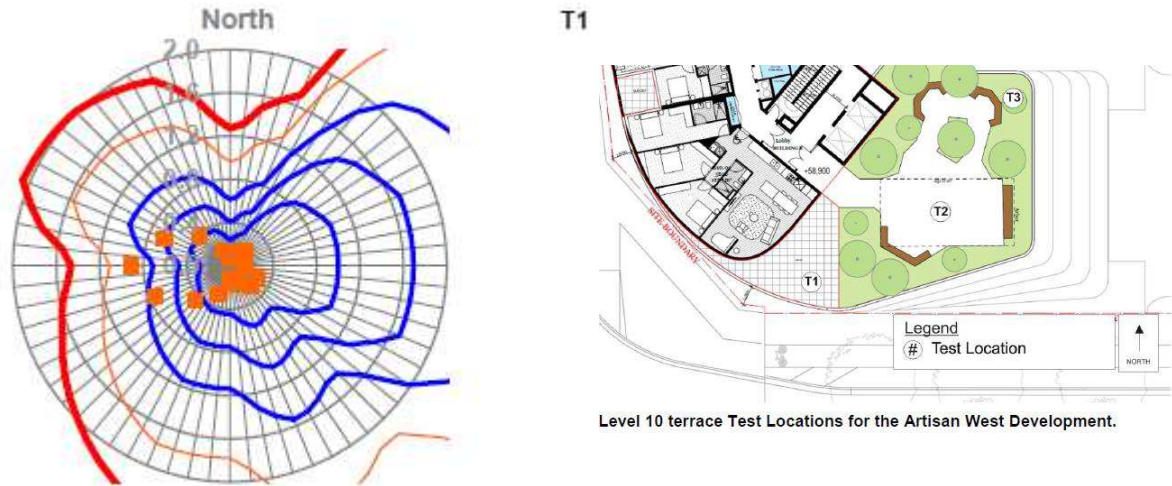


Figure 1: Polar plot of wind speed at location T1 (Level 10 terrace)

In conclusion, the MEL Consultants Environmental Wind Assessment has used the correct model, experimental and analysis methodology to assess the wind effects on the pedestrian level spaces around the proposed development in detail. We agree with the conclusions regarding the ground floor wind conditions.

For the wind conditions on Location T1 at the Level 10 terrace of Building B, MEL Consultants should provide clarification of whether the conclusion in main report or the results in the polar plot are correct; If the results shown in Figure 1 are correct, then additional wind control measures may be necessary to rectify this.

Yours sincerely,



**Vipac Engineers & Scientists Ltd**

Zhuyun Xu  
**Senior Wind Consultant**

Sophie Lamande  
**Wind Group Leader**

**Attachment:**

**Files received**

Name	Date modified
 200728_Artisan West_RFI Update	28/07/2020 2:23 AM
 165_19_WT_ENV_03_ArtisanWest_Alphington	28/07/2020 2:22 AM