

Peter Lunness
John Sisk & Son Ltd
Brancaster Road
Off Oxford Road
Manchester
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7th April 2021

Circle Square, Plots 5 & 6 – Wind Verification Report

Dear Peter,

I am pleased to confirm that NOVA Fluid Mechanics Limited (NOVA) has taken over the wind engineering business unit from BMT, retaining BMT wind engineering staff and IP (including past project data), and importantly the technical expertise thereof.

In 2018, BMT carried out an assessment of the overall impact to the wind microclimate in and around Plots 5 & 6 of the proposed Circle Square development in Manchester, which is summarised in BMT Report 432203rep1v3, dated 11th January 2018. In summary, wind conditions at the vast majority of locations within the site and surrounding area were suitable, in terms of both pedestrian comfort and safety, for planned uses with only a few minor exceedances, in terms of comfort only, in localised areas.

In terms of wind mitigation measures, BMT's original report made the following recommendations for Plots 5 & 6:

- 1) ~4.2 m high glass screens to enclose all terraces;
- 2) Partially open roof above the south facing outdoor seating terrace.

The purpose of this letter is to review the installed mitigation measures to verify their consistency with aforementioned report.

NOVA have been provided with the relevant "As Constructed" drawings indicating the implemented wind mitigation measures, received on 9th March 2021, and in particular the marked-up plans & elevations "CSAL-FCBS-ZT-15-DR-A-0215-Wind Mitigation mark up.pdf", "CSAL-FCBS-ZT-16-DR-A-0216-Wind Mitigation mark up.pdf", "CSAL-FCBS-ZT-XX-DR-A-0800-Wind Mitigation mark up.pdf" and "CSAL-FCBS-ZT-XX-DR-A-0801-Wind Mitigation mark up.pdf", which indicate a split screen with a 1.4 m gap above a 1.4 m balustrade at the mid-level terraces and full height screens at the highest level, with partially open roofs above all terraces.

Whilst BMT's original report recommended ~4.2 m full height glass screens to enclose all the terraces on Plots 5 & 6, this would only be required if long term sitting conditions were necessary in summer, such as might be desirable for an outdoor café / restaurant or bar where people are expected to sit for extended periods of time. In the absence of these screens, wind conditions were suitable for short periods of sitting / standing use and thus suitable for general recreational use. It is understood that the terraces are intended as a break out area with managed access, and as such can be considered as a general recreational space as opposed to outdoor seating. Furthermore, it is noted that the terrace space is more enclosed, both with additional overhead shelter and the 1.4 m balustrades, than the

baselines assessed by BMT. It is important to note that in either case, wind conditions on the terraces were suitable in terms of pedestrian safety for all users.

Notwithstanding the above, on the basis of NOVA's extensive experience of wind microclimate testing, and having reviewed the implemented wind mitigation in conjunction with the recommendations of the wind microclimate studies, NOVA are happy to confirm that the wind microclimate in and around the proposed site would be expected to be similar to that presented in BMT's original report, being suitable, in terms of both pedestrian comfort and safety, for planned uses.

Should you have any queries or concerns on any of the above, please do not hesitate to contact me.

Kind regards,

A handwritten signature in black ink, appearing to read 'D Hankin', with a stylized flourish at the end.

David Hankin MEng ACGI PhD MRAS
Technical Director