

**BRE**  
Bucknalls Lane  
Watford, Herts  
WD25 9XX  
  
T: +44 (0)333 321 8811  
E: [enquiries@bregroup.com](mailto:enquiries@bregroup.com)  
W: [www.bregroup.com](http://www.bregroup.com)



Jonathan Heather  
K2 Consultancy  
61-63 St. John Street  
London  
EC1M 4AN

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Our Ref. P112007-1001

Dear Jonathan

**Re: Formal Response to Peer Review – No.1 Reading**

This letter contains a formal response to the peer review carried out by BMT on the wind microclimate assessment of No. 1 Reading undertaken by BRE.

The BMT peer review (Correspondence No: 600119/DAH/001) and the BRE wind microclimate assessment (P112007-1001) have been referenced throughout this letter. Select passages from these two documents have been included within this letter for ease of reference. The format for this formal response takes select comments from within the BMT peer review and addresses them on an individual basis.

All in all, it has been deemed by BRE that the comments made by BMT amount to requests for clarifications and notes along the lines of “BMT has this approach, but BRE has another different approach”. In this formal response clarifications have been provided (when deemed necessary) and the remaining BMT comments have either been noted and accepted or dismissed outright.



BRE's Quality Management system is certified to ISO 9001:2015. Certificate No. LRQA 10150261.

BRE's Environmental Management System is certified to ISO14001:2015. Certificate No. 10153853.

BRE's Health and Safety Management System is certified to ISO 45001:2018. Certificate No. LRQA 10120224.

#### BMT Comment 1:

"Ideally, we would expect to see a comparison of the simulated atmospheric boundary layer in the wind tunnel with the output from the software used to derive the wind climate model of the proposed development site and suggest this be provided."

#### BRE Response 1:

The wind climate model and velocity profile used in the BRE study was based on the BREVe 3 computer program which is fully compliant with BS EN 1991-1-4 and the UK National Annex.

#### BMT Comment 2:

"The positioning of probes is largely appropriate to capture key pedestrian wind conditions around the proposed development. However, BMT would typically expect the coverage to extend further into the surrounding area, particularly noting the number of sensitive pedestrian usages within the immediate vicinity. BMT would ask that some commentary be provided to clarify what impact the proposed development has on activities further afield, particularly sensitive receptors such as entrances, shop fronts, waiting areas."

"... whilst key locations relating to the proposed development have been captured, namely the shop front / entrances along Station Road, a number of auxiliary areas within the immediate surrounding do not appear to have been assessed, e.g. the bus stops along Station Road and the taxi rank outside Reading station among others, being areas where pedestrians might be expected to wait for extended durations and thus be more sensitive to incumbent wind."

#### BRE Response 2:

There is no specification given by the planning authority with regard to the extent of coverage required for the measurements in a wind microclimate assessment. Therefore, BRE uses its own judgement, and input from the client, to decide upon an adequate extent of coverage. The input from the client consisted of the provision of plan view drawings for the proposed development which showed the entrances to the proposed development.

Based on our experience it is expected that the wind conditions at the bus stop and taxi rank locations in the area between the proposed development and Reading Station will be suitable for Strolling (as defined in the BRE wind microclimate assessment). The Strolling criterion includes "standing for short durations". It may also be worth noting that there are bus stop shelters in the area which can be expected to shelter pedestrians for the duration of their wait.

#### BMT Comment 3:

"BMT prefer the widely adopted LDDC variant of the Lawson Criteria.... This offers a relatively simple and practical manner for the assessment of wind comfort and safety. BMT would recommend that the results for the proposed development be reassessed against the LDDC variant and demonstrated to remain compliant."

#### BRE Response 3:

The LDDC (London Dockland's Development Corporation) variant of the Lawson Criteria was developed specifically for use in London Docklands. BRE prefer to use the more widely applicable variant of the Lawson Criteria.

**BMT Comment 4:**

“Furthermore, it is noted that the results are presented in terms of suitability for “pedestrian strolling and other more strenuous activities” or “any pedestrian activity”, with “workers around buildings and business walking” employed where these levels are exceeded. It is not clear how these levels relate to those presented in Table 2 of the report.”

**BRE Response 4:**

The phrase “suitable for any pedestrian activity” equates to “suitable for Entrance Doors, Long-term Sitting, Strolling, Workers around Buildings, and Business Walking” as defined in Table 2 of the BRE wind microclimate assessment. The phrase “suitable for pedestrian strolling and other more strenuous activities” equates to “suitable for Strolling, Workers around Buildings, and Business Walking” as defined in Table 2 of the BRE wind microclimate assessment.

**BMT Comment 5:**

“Furthermore, it is not clear why the usage of location 34 should change between the existing and future surrounding scenarios, being immediately adjacent to the proposed development, or why the locations long the neighbouring arcade were not considered in the existing site scenario.”

**BRE Response 5:**

Regarding the change in usage at location 34, there is a misunderstanding about the information presented in Appendices D through F. The information provided in these appendices has been rewritten for the sake of clarity in the form of new tables. These new tables have been included in an updated version of the wind microclimate assessment.

The intended usage at location 34 does not actually change between the test configurations. The expected intended usage described in the BRE wind microclimate assessment is the expected intended usage that was considered.

**BMT Comment 6:**

“The assumption that winter represents the windiest season has the potential to understate the worst seasonal results, particularly noting the exposure of the proposed development to north-easterly winds that become prevalent during the spring months.... BMT would recommend that all seasons are considered in order to ensure the capture of a worst-case scenario.”

**BRE Response 6:**

It is stated in the BRE wind microclimate assessment that “the windiest season of the year is **generally** the winter”. It has not been stated that the winter season represents the worst-case season. Appendices D through F of the BRE wind microclimate assessment provide results for the year as well as for each of the four seasons.

Prepared by:

A handwritten signature in cursive script, appearing to read 'S Shanks'.

Stephen Shanks  
Consultant Wind Engineer  
For and on behalf of BRE  
Telephone: +44 (0)1923 664862  
E-mail: [Stephen.Shanks@bregroup.com](mailto:Stephen.Shanks@bregroup.com)

Approved by:

A handwritten signature in cursive script, appearing to read 'P Blackmore'.

Dr Paul Blackmore  
Associate Director  
For and on behalf of BRE  
Telephone: +44 (0)1923 664533  
E-mail: [Paul.Blackmore@bre.co.uk](mailto:Paul.Blackmore@bre.co.uk)