

8781/L/GS

23rd November 2017

Campbell Reith Hill LLP
Friars Bridge Court
41-45 Blackfriars Road
London
SE1 8NZ

To whom it may concern,

**Re: 51-52 Tottenham Court Road, London, W1T (Basement Impact Assessment Audit;
Project Number: 12336-87 Revision D3)**

Many thanks for your report dated November 2017 'Basement Impact Assessment Audit' with regards to the works proposed at the above.

With reference to the comments raised in the report, please be advised that:

1. Ground movement and damage impact assessment.

- 1.1. The report identifies that the ground movement assessment makes assumptions on underpinning within stiff London Clay, whereas the actual conditions are indicated to be loose Made Ground. GEA have provided clarification of the assumptions:

'Where our ground movement assessment models shallower underpins as bearing within the made ground, these will in practice be tied into the basement raft foundation, which has been modelled as a uniformly distributed load.'

For the majority, our ground movement assessment analyses the proposed basement development as underpinned down to the competent underlying gravel. At no stage has the assessment assumed the deeper underpins will bear within the underlying made ground. Where the proposed walls will bear within the dense gravels, the horizontal movements of nearby sensitive structures have been estimated by using the profile of a stiff wall embedded within stiff clay, which is considered to be a comparable magnitude of movement to that of dense gravels. The vertical movement has been assessed in PDisp, which takes account of the presence of the made ground. In general, the assessment is limited to the data that is available which is limited for granular material and, in particular for made ground, such that the movement profile of clay must be used.'

- 1.2. The report states that the movements predicted in the revised (November 2017) GMA are not considered to make reasonably conservative assumptions for two stages of underpinning (considering shrinkage of the dry pack) nor the settlement likely to be induced by the stage one underpins bearing within loose Made Ground. Please be aware that the two-stages will be installed concurrently within the same excavation. At no point

will loads be transferred on to the Made Ground. Non-shrink grout will be used in lieu of dry pack to prevent movement due to shrinkage.

2. Construction methodology, temporary and permanent works information, retaining wall calculations, foundations assessment.

2.1. As noted previously, our construction methodology is consistent within the revised documentation.

2.2. It has not been possible to confirm the depth of the foundation to the neighbouring building due to access restrictions. This will be verified on site prior to works commencing.

3. Use of resin grouting.

3.1. The proposed use of resin grouting to control groundwater will be subject to a Basement Construction Plan (BCP).

4. Structural monitoring.

4.1. As noted previously, the Ground Movement Analysis has predicted that the proposed construction may result in the building damage for sensitive structures of Category 1 (Very Slight). The movement monitoring specification ensures Category 1 (Very Slight) is maintained.

4.2. The final movement monitoring strategy to be adopted by the Contractor will include for monitoring to relevant structural walls within the zone of influence; monitoring points to be positioned to ensure that they are located away from the zone of influence; and frequency of monitoring shall be altered to suit the programme of works as noted within the Audit report.

The Basement Impact Assessment and our responses to the Audit queries within this letter have demonstrated that the proposed scheme will maintain the structural stability of the building and neighbouring properties; resulting in movements up to Category 1 (Very Slight) as required by London Borough of Camden.

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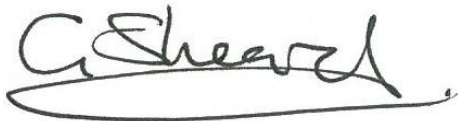
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Should you require anything further or wish to discuss anything in greater detail, please do not hesitate to get in touch.

Yours faithfully
FOR SINCLAIR JOHNSTON & PARTNERS LIMITED



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