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July 31, 2015

Ref: 15-261-L-001

Mr & Mrs Beckman
7 Redington Gardens
London
NW3 7RU.

Dear Mr and Mrs Beckman

re: Planning Application 2015/3004/P – 36 Redlington Road NW3

A review of the documents related to this planning application, which are available on the Camden Borough Council website as at July 30th 2015, has been undertaken in relation to the issue of ground stability. In order to document the review Section B of the Camden Borough Council **Basement Impact Assessment Audit Instruction Form** has been employed, the completed form is attached.

Following review of the documents it is our considered opinion that the BIA is a comprehensive submission and generally complies with the requirements of the planning guidance, however we make the following additional comments;

1. The ST Consult report suggests that the site is not within a hillside setting, whilst we have not undertaken a site visit as part of this review the contours shown on the Ordnance Survey 1:25,000 mapping of the area could suggest otherwise. If this is confirmed by your own knowledge of the area we would recommend that you request that further justification of their interpretation of the topography of the area be provided by the applicant.
2. The results for the movement analysis seem reasonable for the ground conditions that have been determined for the site, however the parameters employed for the analysis are not provided in the report. We would expect to see these parameters given in the ST Consult report (J11894 Rev01), along with justification of how the parameters were selected.
3. As would be expected the movement analysis has been undertaken based on assumptions with regard to the basement design in lieu of a full structural design of the basement having been prepared. Further movement analysis should be undertaken once the actual structural design for the basement is available. It would not be unreasonable to expect that any planning permission would include a condition that requires the developer to submit this information to the planning authority for approval prior to any work commencing.
4. Whilst the ST Consult reports mention both secant and contiguous piled wall options for the construction of the basement the report by Zussmanbear, which shows the proposed construction methodology indicates that a contiguous piled wall will be employed to form the basement. The difference between the two techniques is that a secant piled wall forms a continuous wall whereas the contiguous piled wall will have a gap of the order of 100-150mm between adjacent piles. The conceptual ground model, Figure No. 4 of the ST Consult report reference J11894 Rev01, indicates that the basement will predominantly be constructed within the Sandy Claygate Member and that the groundwater level is at c. 1m below the existing ground level. The combination of the sandy nature of the ground and the high water level will give the potential for loss of ground if a contiguous piled wall is used, with groundwater and fine particles flowing into the excavation through the gaps between adjacent piles. We would recommend that a secant pile wall be constructed in order to prevent or limit ground loss due to groundwater movement into the basement excavation. It would not be unreasonable to expect that any planning permission would include a condition that requires the developer to submit a detailed method for the construction to the planning authority for approval prior to any work commencing.

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5. The ST Consult report indicates that monitoring of the adjacent properties will be required, however no detail of what form this monitoring will take is given. In addition, there is no indication of what would happen if the monitoring results were in excess of those predicted. It would not be unreasonable to expect that any planning permission would include a condition that requires the developer to submit a scheme of monitoring, which should include proposals for limits to acceptable movement, to the planning authority for approval prior to any work commencing.

If you have any queries or wish to discuss our findings further please do not hesitate to contact me.

Yours faithfully



Brian Duthie
BEng CGeol FGS FIQ
Key GeoSolutions Limited

Section B: BIA components for Audit

Items provided for Basement Impact Assessment (BIA)¹		
Item provided	Yes/ No/N A²	Name of BIA document/appendix in which information is contained.
1	Yes	Basement Impact Assessment Report (Stages 1 & 2 Screening/Scoping Exercise) ST Consult Ref. J11894 Rev02
2	Yes	Archetype drawing no. 1048 (10) 01
3	Yes	Photographic document 36 Reddington Road
4	NA	
5	Yes	Zussmanbear drawing no. L/2415-05
6	Yes	Archetype drawing nos. 1048 (10) 03, 09
7	No	
8	Yes	Basement Impact Assessment Report Stages 1 & 2 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev02 Basement Impact Assessment Report Stages 3 & 4 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev01
9	Yes	Basement Impact Assessment Report Stages 1 & 2 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev02 Basement Impact Assessment Report Stages 3 & 4 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev01
10	NA	
11	No	
12	Yes	Basement Impact Assessment Report Stages 1 & 2 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev02 Basement Impact Assessment Report Stages 3 & 4 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev01
13	Yes	Basement Impact Assessment Report Stages 3 & 4 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev01
14	Yes	Basement Impact Assessment Report Stages 3 & 4 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev01

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15	Specific mitigation measures to reduce, avoid or offset significant adverse impacts.	Yes	Basement Impact Assessment Report Stages 3 & 4 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev01
16	Construction Sequence Methodology (CSM) referring to site investigation and containing basement, floor and roof plans, sections (all views), sequence of construction and temporary works.	Yes	Structural Engineering Report, May 2015, Zussmanbear.
17	Proposals for monitoring during construction.	Yes	Basement Impact Assessment Report Stages 3 & 4 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev01
18	Confirmatory and reasoned statement identifying likely damage to nearby properties according to Burland Scale	Yes	Basement Impact Assessment Report Stages 3 & 4 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev01
19	Confirmatory and reasoned statement with supporting evidence that the structural stability of the building and neighbouring properties will be maintained (by reference to BIA, Ground Movement Assessment and Construction Sequence Methodology), including consideration of cumulative effects.	Yes	Basement Impact Assessment Report Stages 3 & 4 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev01
20	Confirmatory and reasoned statement with supporting evidence that there will be no adverse effects on drainage or run-off and no damage to the water environment (by reference to ground investigation, BIA and CSM), including consideration of cumulative effects.	Yes	Basement Impact Assessment Report Stages 3 & 4 (Screening/Scoping Exercise) ST Consult Ref. J11894 Rev01
21	Identification of areas that require further investigation.	NA	
22	Non-technical summary for each stage of BIA.	NA	

