

Our Ref: 11015

March 2012

16A LYNDHURST GARDENS, LONDON NW3

RESPONSE TO COMMENTS MADE ON STRUCTURAL ASPECTS OF PLANNING APPLICATION

1. Inadequate geological information, unique soils.

A site investigation consisting of trial pits, boreholes and laboratory testing has shown the underlying soils to consist of up to 2m of Made Ground over London Clay. London Clay is not a “unique” material as suggested in the Objections, it is not very variable and a lot is known about its engineering properties because it is so prevalent in this area of London. Geological records indicate that the London Clay is up to about 100m thick in this area.

If there is a “unique” soil in the area it would be the Claygate Beds which are silt and fine grained sands interbedded with silty clays but these occur further up the hill towards and around Hampstead. They are easily distinguishable from London Clay and have not been found on this site.

Three 15m deep standpipes have been installed on the site and all were completely dry when readings were taken by SLR Consulting Limited on 22nd July 2011, 7th November 2011 and 28th February 2012. No ground water has been encountered in any of the investigations so far undertaken.

2. Slope of the ground.

The relevance of the topography of the site has not been ignored in the structural design, neither has its affect on the neighbouring properties. Both of these issues are being addressed by the proposal to install a contiguous piled wall around the new basement prior to any significant excavation, followed by a top down form of construction. The ground floor level slab will be cast and allowed to cure before excavating below it to form the first level of basement; the basement walls and floor slab will then be cast and allowed to cure before the second level of basement is excavated. The attached MCP drawing numbers 11015/101 to 104 and 201 to 204 describe the proposals for the structure.

3. The site is unstable because it is at the bottom of a hill.

There is no evidence whatsoever to suggest that the site is unstable or that any existing structures in the vicinity of the site are unstable as a result of the topography.

4. Strong likelihood of ground movement not reliably assessed.

The magnitude of the possible ground movement has been assessed by Geotechnical Consulting Group as recommended by CIRIA Publication C580 “Embedded Retaining – Guidance for Economic Design”. As noted above, the ground is not variable, no ground water has been encountered and a method of construction is being used that is specifically designed to minimise ground movements associated with the excavation process. The method adopted to appraise ground movements is, therefore, entirely appropriate for this type of development.

5. Basement at No 18.

The presence or not of a basement at No 18 does not unduly affect the accuracy of the ground movement predictions because these movements are initiated at a much deeper level than this. In local terms the presence of a basement helps to improve the robustness of the foundations.

6. Increased risk of ground movement the longer the work takes.

The risk of ground movement is primarily associated with how much soil is being removed and the manner in which the excavation is supported. While ground movements may increase with time, the overall time frame for excavation and construction is such that the increase would be minimal in a low permeability soil such as the London Clay.

7. The basement could result in ground movement affecting the train tunnel.

We have had meetings with Network Rail and they are currently satisfied that the excavations will not adversely affect their tunnel. They have raised no objections to the proposals and they have, in fact, been helpful in determining the piling layout.

8. The development encroaches on the Network Rail 5m exclusion zone.

The crown of the tunnel is some 25m below ground level at this location; as the retaining piles will only be in the order of 10m to 12m long they are well outside the Network Rail exclusion zone. Network Rail have confirmed that they are satisfied that the development does not encroach on their exclusion zone.