Camden Council
C/O James Thomas,
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21st June, 2016

Job No: M1159

Ref: M1159/com/JT

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KIDDERPORE AVENUE – SECTION 106 AGREEMENT - CONDITION 15

O'Connor Sutton Cronin (OCSC) are appointed by Mount Anvil as Independent Certifying Engineer to review the Basement Construction Plan for their Kidderpore Avenue development in line with Condition 15 of the Section 106 Agreement. The Basement Construction Plan has been prepared by Tully De'Ath, the basement designer, with further information provided by Southern Testing and Mount Anvil.

In order to verify that the Basement Construction Plan has been formulated in accordance with Condition 15 of the Section 106 Agreement, OCSC carried out an initial review of all of the information provided by Tully De'Ath. Following this review, OCSC raised a number of comments/questions which are set out below:

1.0 Are Tully De'Ath satisfied with Southern Testing's statement and assumptions regarding horizontal movement due to pile installation being negligible and therefore have not been allowed for in their analysis? ;

2.0 Tully De'Ath to confirm Southern Testing's have used the correct parameters regarding surcharge loads, levels of existing foundations etc;

3.0 Tully De'Ath need to set the maximum allowable horizontal and vertical displacement for the basement perimeter walls to ensure this movement will not adversely affect the structural integrity of the neighbouring buildings;

4.0 How is the retained facade of the Lady Chapman Hall Building proposed to be protected during piling operations and basement excavations? ;

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5.0 If ground water levels rise above existing levels, what is the risk of damage to existing properties and what remedial action would be required?;

6.0 With regard to levels of vibration, we would expect the Consulting Engineer to set the trigger levels which define the various degrees of acceptance i.e. green, amber and red;

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7.0 With regard to Southern Testing's letter dated 10th June(Ref LDM/EL/J12093) - Section 4, Tully De'Ath need to confirm that the predicted change in groundwater levels and expected buoyancy effects beneath the Thames Water Reservoir building will not adversely affect the performance of this structure;

8.0 With respect to Southern Testing's letter dated 13th June(Ref DV/EL/J12093), OCSC's comments are as follows:

• Section 1.1 which addresses the Chapel structure states - "Depending on the final decision on the basement construction a further ground movement analysis should be carried out". We understand that a decision has been made on the form of basement construction next to the Chapel Building. If this ground movement analysis is not complete, how do Tully De'Ath intend to address this with regards to discharging Condition 15? ;

• Have Tully De'Ath assessed the condition of this building based on the findings of Murphy Survey's survey? ;

9.0 There are some anomalies between the various documents which we need some clarification on:

- According to Sections 6.2 and 6.3 of Tully De'Ath's Basement Impact Assessment, the basements will be constructed with a mix of secant and contiguous piled wall. Section 3.1.7 of The Basement Construction Plan recommends secant piled wall to prevent water ingress;

- A significant length of the Rosalind Franklin and Lord Cameron basement appears to be constructed without a piled retaining wall, however the levels of these basements appear to be lower than that of the Large Basement Carpark which has a piled retaining wall around its full perimeter. Is a cut off wall required to all of these basements to prevent water ingress;

- A sheet piled retaining wall is proposed to the townhouse adjacent to the Chapel. Section 6.2 of the BIA suggests bored piled methods should be adopted to limit the impact on adjacent structures. Has a risk assessment on the Chapel building been completed taking on board the construction of the sheet piled retaining wall? ;

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10.0 The extent of temporary propping is not clear – The Plans suggest one level of propping while some of the sections suggest two levels of propping**;**

11.0 With regard to the monitoring of existing buildings for movement during the construction phase, has the option of remote monitoring with a traffic light alarm system been considered? ;

12.0 Is there a vibrations monitoring proposal? ;

13.0 Is there a structural survey of neighbouring buildings on the site or adjacent to the site? ;

14.0 Under condition 15 – Clause (g): Tully De'Ath need to include a section on the safety measures that are being proposed. For example, will exclusion zones for heavy construction traffic next to existing basements be set up to reduce the risk of damaging existing structures during construction. What protection measures are being proposed to existing buildings? In addition, what contingency measures are being proposed? ;

15.0 Under condition 15 – Clause (h): Supporting calculations for the temporary and permanent basement construction works are required to be provided;

16.0 Under condition 15 – Clause (i): In order to fully address this clause, Tully De'Ath need to confirm they will inspect, approve and undertake regular monitoring of both permanent and temporary basement construction works throughout their duration and to ensure compliance with the plans and drawings as approved by the building control body. In addition, we suggest that the piling contractor, ground works contractor and temporary works Engineer inspect the works prior to the main excavation.

17.0 Under condition 15 – Clause (j): Who will be responsible for putting this maintenance regime in place? We assume there will be ground water and drainage diversion measures necessary to enable the construction of the basement – who will be managing this process to ensure the structural stability of the neighbouring properties and the local water environment is not adversely affected?

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