

Client	Ms Lin Zhu	Report TN 01
Project:	16 Avenue Road, NW8	
Job No:	11940	
Engineer:	mor	
Date	25 March 2021	
Rev:		

Technical Note

1.0 Introduction

Planning permission was granted in 2017 for the redevelopment of the premises at 16 Avenue Road, London NW8 to include demolition of the existing building and the construction of a new dwelling house arranged over basement, lower ground, ground and first to second floors inclusive.

A Basement Impact Assessment was carried out by Fairhurst (Ref: 116255/R1.1) that included a ground movement assessment and damage impact assessment of neighbouring dwellings. The results demonstrated Burland Damage Category no greater that Category 1 (very slight).

The consented scheme presented two basement levels: the pool and plant area and the marginally deeper showroom area.



2.0 Proposed Adaptations

It is proposed the basement floors are set to a uniform level. The diagram below illustrates the arrangement. The area shaded pink is the consented scheme; the solid slabs are the newly proposed levels.

The excavation depth on the left hand side is reduced from the consented scheme. The excavation depth on the right is marginally increased by approx. 200mm.



3.0 Does this affect the Basement Impact Assessment?

The original BIA for the consented scheme modelled the basement excavation for the maximum 9.6m excavation depth across the whole basement footprint. This is a conservative approach such that estimated ground movement and damage impact assessments are therefore likely to be overestimated.

In order to confirm this, Fairhurst were re-appointed to consider if the proposed adaptations affected the results of their analyses. They conclude that they do not affect the analyses and the results of the consented BIA are unaffected by the proposed adaptations.

Moreover, the method of construction, including a "stiff" means of temporary lateral support of the contiguous piles is to be implemented as originally planned.

A copy of Fairhurst's letter is presented on the following pages.



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2nd March 2021

Mr Michael O'Regan Ross & Partners 1 Bastwick Street London EC1V 3NU

Dear Michael,

Ref. 116255 16 Avenue Road Revised Basement Proposal

We understand that the current basement proposal for this project has been slightly revised as per the drawings attached, which has resulted in minor level changes in some basement areas compared to the previously consented scheme.

Fairhurst's involvement in this project initially comprised a Desk Study Report and Basement Impact Assessment (BIA), which was carried out in September 2016 (Ref. 116255/R1.1). This work considered the likely impacts of the proposed scheme on adjacent structures. The assessment concluded that the properties surrounding the site were not expected to suffer any damage greater than Damage Category 1 (Very Slight) in accordance with the Burland Scale. An audit of the BIA was subsequently undertaken by Campbell Reith who were in agreement with the analysis methodology and findings contained within the BIA.

The revised basement formation levels and geometry have been compared to those of the consented proposal and reviewed against the assessment carried out previously for the BIA. I am pleased to report that, it has been found that these differences in the current proposal do not change the results of the original consented version, when using the same analysis methodology as before. Based on the review the Damage Category 1 still applies to this proposal, which does not present a more onerous scenario than what had been accounted for in the previous analysis.

As recommended in the BIA, the previous analysis and thus the updated analysis assumes full propping of the basement walls both in the temporary and permanent conditions. Additionally a comprehensive movement monitoring strategy should be in place during construction and trigger levels should be specified in order to protect the adjoining properties. A specification for movement monitoring should be incorporated into the final construction methodology for the proposed development to monitor the adjacent properties and establish the extent of any future potential movement to the building.

As you are aware, the movements predicted by the BIA should be considered only for the purposes of providing pre-planning guidance with regards to the development; the actual magnitude and distribution of ground movement is highly dependent on the quality of workmanship during construction. Any predicted movement should be reduced and mitigated during detailed design stage of the permanent works and any temporary works required.



The submitted BIA is specific to the scheme under consideration only and should be reviewed if the development proposal changes significantly.

Yours sincerely,

Jessica Cheng Senior Geotechnical Engineer

c.c:

Phil Brown Fairhurst

PROPOSED BASEMENT - COMPARISON

Basement Plan

<u>KEY</u>

Extent of consented scheme







01

PROPOSED BASEMENT - COMPARISON

Section A-A

<u>KEY</u>

Extent of consented scheme





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PROPOSED BASEMENT - COMPARISON

Section B-B

<u>KEY</u>

Extent of consented scheme





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