

No. 17 Wadham Gardens,  
London, NW3 3DN

Basement Impact Assessment  
Audit

For  
London Borough of Camden

Project Number: 13398-36  
Revision: D1

September 2020

Campbell Reith Hill LLP  
15 Bermondsey Square  
London  
SE1 3UN

T: +44 (0)20 7340 1700  
E: [london@campbellreith.com](mailto:london@campbellreith.com)  
W: [www.campbellreith.com](http://www.campbellreith.com)

### Document History and Status

Revision	Date	Purpose/Status	File Ref	Author	Check	Review
D1	02.09.2020	Comment	RNjap13398-36-020920 17 Wadham Gardens_D1	R Nair	E Brown	E Brown

This document has been prepared in accordance with the scope of Campbell Reith Hill LLP's (CampbellReith) appointment with its client and is subject to the terms of the appointment. It is addressed to and for the sole use and reliance of CampbellReith's client. CampbellReith accepts no liability for any use of this document other than by its client and only for the purposes, stated in the document, for which it was prepared and provided. No person other than the client may copy (in whole or in part) use or rely on the contents of this document, without the prior written permission of Campbell Reith Hill LLP. Any advice, opinions, or recommendations within this document should be read and relied upon only in the context of the document as a whole. The contents of this document are not to be construed as providing legal, business or tax advice or opinion.

© Campbell Reith Hill LLP 2020

### Document Details

Last saved	02/09/2020 15:12
Path	RNjap13398-36-020920 17 Wadham Gardens_D1.doc
Author	R Nair, BTech MSc DIC GMICE
Project Partner	E M Brown, BSc MSc CGeol FGS
Project Number	13398-36
Project Name	No. 17 Wadham Gardens, NW3 3DN
Planning Reference	2020/1667/P

Contents

1.0 Non-technical summary ..... 1

2.0 Introduction ..... 2

3.0 Basement Impact Assessment Audit Check List..... 3

4.0 Discussion ..... 7

5.0 Conclusions ..... 9

Appendices

- Appendix 1: Residents' Consultation Comments
- Appendix 2: Audit Query Tracker
- Appendix 3: Supplementary Supporting Documents

## 1.0 NON-TECHNICAL SUMMARY

- 1.1. CampbellReith was instructed by London Borough of Camden, (LBC) to carry out an audit on the Basement Impact Assessment submitted as part of the Planning Submission documentation for No. 17 Wadham Gardens, NW3 3DN (planning reference 2020/1667/P). The basement is considered to fall within Category B as defined by the Terms of Reference.
- 1.2. The Audit reviewed the Basement Impact Assessment for potential impact on land stability and local ground and surface water conditions arising from basement development in accordance with LBC's policies and technical procedures.
- 1.3. CampbellReith was able to access LBC's Planning Portal and gain access to the latest revision of submitted documentation and reviewed it against an agreed audit check list.
- 1.4. The BIA statement was prepared by Pringuer-James Consulting Engineers using individuals who possess suitable qualifications for assessment of land stability and hydrology, but not hydrogeology.
- 1.5. The BIA has confirmed that the proposed basement will be founded on London Clay.
- 1.6. It is proposed to construct two lightwells on the western side of the existing basement and car lift area. Further information is required regarding the construction methodology. Outline design details of the proposal are not presented and are required.
- 1.7. Whilst it is accepted there will be no significant impacts to subterranean flows, it is stated that River Fleet historically ran its course across the site. This should be carried forward to screening and potential impact assessment.
- 1.8. Information regarding the foundations of the neighbouring properties is not available and contradictory statements are made. Justification is required to confirm that the impacts on surrounding properties will be acceptable. It is accepted that the proposal will not impact other aspects of land stability of the area.
- 1.9. No proposals are provided for a movement monitoring strategy during excavation and construction. A works programme is also absent.
- 1.10. Whilst the surface water screening requires correction, it is accepted that the proposal will not increase the impermeable surface area on site, is not in an area susceptible to flooding and that it will not affect the hydrology of the surrounding area.
- 1.11. Queries and requests for further information are summarised in Appendix 2. Until these are addressed the BIA does not meet the requirements of CPG: Basements.

## 2.0 INTRODUCTION

- 2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 28<sup>th</sup> July 2020 to carry out a Category B audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for No. 17 Wadham Gardens, NW3 3DN (Planning reference: 2020/1667/P).
- 2.2. The audit was carried out in accordance with the Terms of Reference set by LBC. It reviewed the Basement Impact Assessment for potential impact on land stability and local ground and surface water conditions arising from basement development.
- 2.3. A BIA is required for all planning applications with basements in Camden in general accordance with policies and technical procedures contained within
- Camden Local Plan 2017 - Policy A5 Basements.
  - Camden Planning Guidance: Basements. March 2018
  - Guidance for Subterranean Development (GSD). Issue 01. November 2010. Ove Arup & Partners.
- 2.4. The BIA should demonstrate that schemes:
- a) maintain the structural stability of the building and neighbouring properties;
  - b) avoid adversely affecting drainage and run off or causing other damage to the water environment;
  - c) avoid cumulative impacts upon structural stability or the water environment in the local area;

and evaluate the impacts of the proposed basement considering the issues of hydrology, hydrogeology and land stability via the process described by the GSD and to make recommendations for the detailed design.

- 2.5. LBC's Audit Instruction described the planning proposal as *"Removal of existing Car Lift on the ground floor and conversion of the car lift area at lower-ground floor into ancillary residential area, excavation for 2 x lightwells to the flank elevation installation with skylights above"*

- 2.6. CampbellReith accessed LBC's Planning Portal on 21<sup>st</sup> August 2020 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment prepared by Pringuer-James Consulting Engineers (dated June 2020);
- Response to BIA with Burland Category prepared by Pringuer-James Consulting Engineers (dated June 2020);
- Design and Access Statement prepared by GPAD Architecture and Interior Design;
- Planning Application Drawings consisting of
  - Location Plan: 666-PL1-00-000;
  - Existing Plans: 666-PL1-00-001, 666-PL2-00-099 (P1), 666-P2-00-100 (P1);
  - Proposed Plans: 666-PL2-10-099, 666-PL2-10-100 (P1).

### 3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	No	The credentials of authors are not compliant with CPG for assessment of hydrogeological conditions.
Is data required by Cl.233 of the GSD presented?	No	Works programme not presented. Further queries raised on information provided, see Section 4.
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	No	Clarification required with respect to construction methodology.
Are suitable plan/maps included?	Yes	
Do the plans/maps show the whole of the relevant area of study and do they show it in sufficient detail?	Yes	
Land Stability Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	The depth of neighbouring foundations and the increase in differential depth due to the proposed construction needs confirmation.
Hydrogeology Screening Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	Question 6 of hydrology screening is not as per the format presented in current CPG and requires revision.

Item	Yes/No/NA	Comment
Is a conceptual model presented?	Yes	
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	No	The depth of neighbouring foundations and the increase in differential depth due to the proposed construction is not confirmed.
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	No	Impact of historic River Fleet below site not considered.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	
Is factual ground investigation data provided?	Yes	No borehole location plan.
Is monitoring data presented?	No	
Is the ground investigation informed by a desk study?	Yes	
Has a site walkover been undertaken?	Yes	
Is the presence/absence of adjacent or nearby basements confirmed?	No	
Is a geotechnical interpretation presented?	Yes	
Does the geotechnical interpretation include information on retaining wall design?	Yes	
Are reports on other investigations required by screening and scoping presented?	NA	

Item	Yes/No/NA	Comment
Are the baseline conditions described, based on the GSD?	No	The depth of adjacent foundations is not confirmed.  The location and present condition of River Fleet is not clearly stated.
Do the base line conditions consider adjacent or nearby basements?	Yes	Although contradictory information is presented with respect to foundation depths.
Is an Impact Assessment provided?	No	
Are estimates of ground movement and structural impact presented?	No	
Is the Impact Assessment appropriate to the matters identified by screening and scoping?	No	
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	No	Further information required as discussed in audit report Section 4.
Has the need for monitoring during construction been considered?	No	
Have the residual (after mitigation) impacts been clearly identified?	No	
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	Yes	However, further information such as outline retaining wall design and justification for the assumed damage category required.
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	Yes	However further information required regarding River Fleet.



Item	Yes/No/NA	Comment
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	No	
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	Yes	However, no analysis or appropriate evidence provided.
Are non-technical summaries provided?	Yes	

## 4.0 DISCUSSION

- 4.1. The Basement Impact Assessment (BIA) has been carried out by Pringuer-James Consulting Engineers and the qualification of individuals concerned in its production do not comply with the requirements of CPG: Basements for the assessment of subterranean groundwater flow.
- 4.2. It is proposed to undertake excavation to construct two lightwells on the western side of the existing basement, close to the western boundary wall. The proposed lightwells will be approximately 2m below existing ground floor level, with a plan area of 2.30m<sup>2</sup> each.
- 4.3. It is proposed to form the lightwells by diamond cutting the existing reinforced concrete and contiguous piled basement retaining walls. The walls of the lightwells are proposed to be of reinforced concrete. It is stated that it is proposed to use sequentially underpinned walls along the length of the adjacent properties on both sides of No 17 Wadham Gardens to maintain stability, however no details of the same have been provided. Clarification is required with respect to proposed underpinning and the construction of the lightwells. Information concerning the design of the reinforced concrete walls to the lightwells has not been presented
- 4.4. The BIA has identified that the site is underlain by Made Ground to 1.10m over a bedrock of London Clay. It is stated that groundwater was not encountered during drilling. Groundwater monitoring data are not presented.
- 4.5. It is stated that the underlying London Clay stratum is impermeable and hence the proposed development will not impact the groundwater flow. The BIA has also identified that River Fleet historically run its course approximately under the site. However, its position and current condition has not been clearly identified. Whilst it is accepted that the scale of the lightwells is such that there will be no significant impact to subterranean flows, the potential impact of the River Fleet on construction activities should be considered.
- 4.6. It has been identified in the ground investigation report that the London Clay on site has a high volume change potential. The lightwell is remote from trees, and hence accepted that there will be no impact due to shrink swell subsidence due to proposal.
- 4.7. The details of founding levels of adjacent properties and boundary wall are not provided. Contradictory information is presented in Section 3.1.2.1 regarding the foundation depth of adjacent building being 1.45m, while Question 13 of the slope stability screening states that the neighbouring property may have basement/cellar. A ground movement assessment to prove that the proposal will not adversely impact the neighbouring structures is absent. Due to absence of such information, it cannot be confirmed that the proposal will not have an unacceptable impact on the neighbouring properties.
- 4.8. It is accepted that the site does not include slopes, natural or manmade, greater than 7 degrees.
- 4.9. It is accepted that the proposal will not change the impermeable surface area on site, and that the proposal will not adversely affect the hydrology of the area.

- 4.10. It is accepted that the proposal is not located in an area susceptible to flooding. However Question 6 of the 'Surface flow & flooding' screening is not as per the format prescribed by latest CPG, and the wording needs revision.
- 4.11. No proposals are provided for a movement monitoring strategy during excavation and construction. A works programme is absent and is requested.

## 5.0 CONCLUSIONS

- 5.1. The BIA has been undertaken by Pringuer-James Consulting Engineers. However, the qualifications of the authors are not adequate for assessment of hydrogeological condition as per Camden's Planning Guidance.
- 5.2. The BIA has confirmed that the proposed basement will be founded on London Clay.
- 5.3. Proposals for the construction of the lightwells are unclear and clarification is required. Outline design of the retaining walls of the two lightwells and the underpinning is not provided and is requested.
- 5.4. It is accepted that there will be significant impacts to subterranean flows, however, the potential impacts to construction of the historic River fleet require to be assessed.
- 5.5. Justification for the assumed structural damage categorisation is required. Further information and clarification is requested regarding the foundations of neighbouring properties and which properties are affected.
- 5.6. It is accepted there are no other land stability impacts in the area of the basement proposals.
- 5.7. No proposals are provided for a movement monitoring strategy during excavation and construction. A works programme is absent. These are requested.
- 5.8. It is accepted that the proposal will not affect the hydrology of the surrounding area and is not in an area susceptible to flooding. However, screening question 6 is to be revised to comply with Camden Planning Guidance and the response confirmed.
- 5.9. Queries and requests for further information are summarised in Appendix 2. Until these are addressed the BIA does not meet the requirements of CPG: Basements.

## Appendix 1: Residents' Consultation Comments

No relevant comments

## Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	BIA	The hydrogeological assessment to be undertaken by suitably qualified individual.	Open	
2	BIA	Question No. 6 of the surface flow and flooding screening assessment needs revision to conform to the format in latest CPG.		
3	BIA	Further consideration of the historic River Fleet required and the scoping assessment to be updated.	Open	
4	BIA	Outline design details of the reinforced retaining wall and underpinning to be provided.	Open	
5	BIA	A works programme is requested.	Open	
6	Stability	Details of foundations to neighbouring properties to be provided.	Open	
7	Stability	Further clarification regarding the underpinning proposals required.	Open	
8	Stability	Further justification/evidence required regarding the Burland scale categorisation presented.	Open	

## Appendix 3: Supplementary Supporting Documents

None



---

## London

15 Bermondsey Square  
London  
SE1 3UN

T: +44 (0)20 7340 1700  
E: [london@campbellreith.com](mailto:london@campbellreith.com)

## Birmingham

Chantry House  
High Street, Coleshill  
Birmingham B46 3BP

T: +44 (0)1675 467 484  
E: [birmingham@campbellreith.com](mailto:birmingham@campbellreith.com)

## Surrey

Raven House  
29 Linkfield Lane, Redhill  
Surrey RH1 1SS

T: +44 (0)1737 784 500  
E: [surrey@campbellreith.com](mailto:surrey@campbellreith.com)

## Manchester

No. 1 Marsden Street  
Manchester  
M2 1HW

T: +44 (0)161 819 3060  
E: [manchester@campbellreith.com](mailto:manchester@campbellreith.com)

## Bristol

Wessex House  
Pixash Lane, Keynsham  
Bristol BS31 1TP

T: +44 (0)117 916 1066  
E: [bristol@campbellreith.com](mailto:bristol@campbellreith.com)

Campbell Reith Hill LLP. Registered in England & Wales. Limited Liability Partnership No OC300082  
A list of Members is available at our Registered Office at: 15 Bermondsey Square, London, SE1 3UN  
VAT No 974 8892 43