

3a Camden Road,  
Camden, London NW1 9LG

Basement Impact Assessment  
Audit

For  
London Borough of Camden

Project Number: 12985-94

Revision: F1

June 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
F1	June 2020	Comment	KBemb12985-94-030620-3a Camden Road-F1.docx	KB	GK	GK

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	03/06/2020 12:57
Path	KBemb12985-94-030620-3a Camden Road-F1.docx
Author	K Barker, MSci FGS
Project Partner	E M Brown, BSc MSc CGeol FGS
Project Number	12985-87
Project Name	3a Camden Road
Planning Reference	2019/2894/P

Contents

1.0 Non-technical summary ..... 1

2.0 introduction..... 2

3.0 Basement Impact Assessment Audit Check List..... 4

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 (BIA) submitted as part of the Planning Submission documentation for 3a Camden Road, London NW1 9LG, Camden Reference 2019/2894/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 has been prepared by LBH Wembley Engineering. The qualifications of the authors are in accordance with LBC guidance.
- 1.5. The proposal is to construct a single basement level below the full footprint of the building at No. 3a Camden Road. The maximum excavation depth is 5.5m below existing ground level.
- 1.6. No site investigation has been carried out at the site. However, it is noted that site investigation has been carried out at the adjacent property to the rear, which indicates the site is underlain by London Clay. It is accepted that additional investigation will be undertaken to confirm the ground conditions below the site.
- 1.7. It is accepted that the proposed development will not impact the wider hydrogeological or hydrological environments.
- 1.8. Liaison with Thames Water will be required to secure the necessary agreements for the re-routing or decommissioning of the sewer to the rear of the property. Similar asset protection agreements will be secured as necessary for any utilities identified within the adjacent highway.
- 1.9. A Ground Movement Assessment (GMA) is presented. It is accepted that the development will not cause damage in excess of Burland Category 1 (Very Slight) to adjacent structures, considering good workmanship.
- 1.10. Structural movement monitoring of adjacent structures is recommended in the BIA and this should be implemented.
- 1.11. The BIA meets the criteria of CPG Basements.

## 2.0 INTRODUCTION

2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 23 December 2019 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 3a Camden Road, London NW1 9LG, Camden Reference 2019/2894/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:

- Guidance for Subterranean Development (GSD). Issue 01. November 2010. Ove Arup & Partners.
- Camden Planning Guidance (CPG): Basements.
- Camden Development Policy (DP) 27: Basements and Lightwells.
- Camden Development Policy (DP) 23: Water.
- The Local Plan (2017): Policy A5 (Basements).

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; and,
- 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 planning portal describes the proposal as: *"Excavation of single basement floor to form ancillary space to the use of the ground floor"*.

The planning portal also confirmed the site lies within the Camden Town Conservation Area but neither the site nor neighbouring properties are listed buildings.

2.6. CampbellReith accessed LBC's Planning Portal in January 2020 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment (ref LBH4571 Ver 1.4) dated February 2020 by LBH Wembley Engineering.
- Existing and proposed elevations and plans by Ambigram Architects dated April 2019.
- Design and Access Statement by Ambigram Architects.
- Planning Statement by SM Planning, dated June 2019.
- Outline SUDS Strategy (ref LBH4571suds Ver 1.1) dated May 2019 by LBH Wembley Engineering.

### 3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	
Is data required by Cl.233 of the GSD presented?	Yes	Utilities plans not provided but mitigation discussed.
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	Yes	
Are suitable plans/maps included?	Yes	Limited extracts from the CGHHS are appended to the BIA. References to other figures given but not appended.
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?	Yes	
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?	Yes	
Is a conceptual model presented?	Yes	Ground conditions based on investigations carried out on adjacent sites.

Item	Yes/No/NA	Comment
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	N/A	No impacts identified.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	N/A	No impacts identified however the site has been identified as being within Critical Drainage Area 3 and a SUDS strategy is provided.
Is factual ground investigation data provided?	Yes	
Is monitoring data presented?	No	No groundwater was encountered.
Is the ground investigation informed by a desk study?	Yes	
Has a site walkover been undertaken?	Unknown	Not specifically mentioned in BIA.
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	
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?	Yes	Outline SuDS Strategy presented.
Are baseline conditions described, based on the GSD?	Yes	
Do the base line conditions consider adjacent or nearby basements?	Yes	



Item	Yes/No/NA	Comment
Is an Impact Assessment provided?	Yes	
Are estimates of ground movement and structural impact presented?	Yes	
Is the Impact Assessment appropriate to the matters identified by Screening and Scoping?	Yes	
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	Yes	Need for good workmanship identified.
Has the need for monitoring during construction been considered?	Yes	Outline Structural Monitoring Plan is provided.
Have the residual (after mitigation) impacts been clearly identified?	Yes	
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	Yes	
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	Yes	No increase in impermeable site area and SUDs strategy provided.
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	Yes	
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	Yes	
Are non-technical summaries provided?	Yes	

## 4.0 DISCUSSION

- 4.1. The BIA and an Outline SuDS Strategy has been prepared by LBH Wembley Engineering. The qualifications of the authors of the reports prepared by LBH Wembley Engineering are in accordance with CPG Basements.
- 4.2. The site comprises a three-storey terraced building with a single storey extension to the rear of the property, occupying the entire footprint of the site. The Planning Statement identifies that the site is within the Camden Town Conservation area and is identified as a building which makes a positive contribution to the area.
- 4.3. The proposed development comprises the construction of a single basement level below the entire footprint of the building. The proposed basement excavation will extend to 5.5m depth below the existing ground floor, to an elevation of 20.5m OD. The internal headroom of the proposed basement is indicated to be 4.9m.
- 4.4. The adjacent properties to the south and west (rear), No. 3 Camden Road and No. 8 Kentish Town Road respectively, have been identified as having been recently underpinned to allow basement construction to 4.0m depth.
- 4.5. The BIA includes the majority of the information required from a desk study in line with the GSD Appendix G1. It is unclear whether a site walkover has been completed; however, as the building occupies the entire footprint of the site, this is considered acceptable.
- 4.6. Screening and Scoping assessments are presented. One of the questions in the Land Stability screening table does not include a justification to the 'No' answer given; however, the issue of seasonal shrink/swell ground movement is later adequately addressed in Section 8.3.1.
- 4.7. Section 5 of the BIA provides details of an intrusive site investigation completed at the site. The ground conditions comprise the London Clay Formation present from shallow depth.
- 4.8. No groundwater was encountered in the adjacent investigations and groundwater is not expected beneath the site. Considering the London Clay Formation is designated as Unproductive Strata, it is accepted that there will be no impact from the proposed development to the wider hydrogeological environment.
- 4.9. Section 6.3 of the BIA provides retaining wall design parameters for the London Clay and Section 7.2 provides derived soil parameters for the Ground Movement Assessment (GMA).
- 4.10. The proposed development will not increase the impermeable site area but is within a Critical Drainage Area (Group 3-003). The site is not located within a Local Flood Risk Zone and is at very low risk of surface water flooding. An Outline SUDs Strategy is presented. It is accepted

that the proposed development will not impact the wider hydrological environment. A detailed drainage design should be agreed with LBC and Thames Water.

- 4.11. The Outline SuDS Strategy identifies a sewer crossing the rear of the site, and the BIA indicates a manhole is present below the single-storey extension at the rear of the property. The BIA identifies the need for this sewer to be investigated further and re-routed or decommissioned as necessary. Liaison with the asset owner will be required and the necessary asset protection agreements put in place.
- 4.12. The BIA indicates that utilities are anticipated to be adjacent to the front of the property, beneath the highway. The BIA confirms that a full utility survey will be undertaken and that asset owners will be contacted where necessary, to agree asset protection requirements.
- 4.13. The new basement slab will be founded in the London Clay Formation. The basement will be formed by underpinning techniques using a 'hit and miss' construction sequence. The underpin bays are indicated to be in short widths not exceeding 1,000mm. Two lifts of underpinning will be required at the front of the property and under the party wall with No. 5, whereas only one lift will be required for the walls where existing neighbouring basements have been identified. A Construction Sequence for the works, including temporary works, excavation and propping, has been presented in Section 6 of the BIA, with associated drawings presented in the Appendix.
- 4.14. A GMA is presented in Section 7 of the BIA. The assessment includes consideration of short term movement resulting from construction of the underpins and presents estimations of short and long term vertical movements. Horizontal movements are assumed to comprise 5mm movement per lift of underpinning, acting over a distance of 4 times the excavation depth.
- 4.15. The GMA concludes that movement resulting from the construction of the basement will not cause damage in excess of Burland Category 1 (Very Slight). Considering good workmanship, this is accepted to be feasible.
- 4.16. An Outline Structural Monitoring Plan is presented in Section 9 of the BIA. Structural monitoring of the perimeter party walls is recommended to be undertaken during construction. Trigger levels are proposed with a threshold of "5mm in any direction" recommended.

## 5.0 CONCLUSIONS

- 5.1. The qualifications of the authors of the BIA report are in accordance with LBC guidance.
- 5.2. The proposal is to construct a single basement level below the full footprint of the building.
- 5.3. Site investigation has been carried out at an adjacent property and indicates the development will be formed within the London Clay.
- 5.4. It is accepted that the proposed development will not impact the wider hydrogeological environment.
- 5.5. It is accepted that the proposed development will not impact the wider hydrological environment.
- 5.6. Liaison with Thames Water will be required to secure the necessary agreements for the re-routing or decommissioning of the sewer to the rear of the property. Similar asset protection agreements will be secured as necessary for any utilities identified within the adjacent highway.
- 5.7. A Ground Movement Assessment (GMA) is presented. It is accepted that the development will not cause damage in excess of Burland Category 1 (Very Slight), considering good workmanship.
- 5.8. Proposed monitoring trigger levels are considered adequate to control construction and ensure damage to neighbouring structures is within predicted limits.
- 5.9. The BIA meets the criteria of CPG Basements.

## Appendix 1: Residents' Consultation Comments

Residents' Consultation Comments

Surname	Address	Date	Issue raised	Response
-	Conservation Area Advisory Committee	30 October 2019	Concerns regarding the depth of the basement and the impact of the basement in conjunction with adjacent proposed and existing basements.	Section 4.

Appendix 2: Audit Query Tracker

None

## 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