

27A Lambolle Road, London
NW3 4HS

Basement Impact Assessment
Audit

For
London Borough of Camden

Project Number: 12336-24
Revision: D1

March 2016

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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 27A Lambolle Road, NW3 4HS (planning reference 2015/6692/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 an established engineering consultant possessing suitable qualifications.
- 1.5. The proposed development comprises of an extension to an existing basement so that the combined new and existing basement will occupy the full footprint of the house. The basement is founded in the London Clay.
- 1.6. It is unlikely that the groundwater table will be encountered during basement foundation excavation.
- 1.7. Conventional underpinning is proposed for the affected party wall between 25 and 27 Lambolle Road. As noted in the BIA the construction methodology for the permanent and temporary works remains to be clarified. A structural feasibility report is required which contains outline design for retaining walls, foundations and the slab.
- 1.8. Movement monitoring is proposed. There is no prediction of ground movements or level of building damage expected, but it is agreed that with good workmanship ground movements should be small and limited to neighbouring properties. The structural engineering information should include a description of mitigation measures employed to restrict damage to Burland Category 1.
- 1.9. It is accepted that the surrounding slopes to the development site are stable.
- 1.10. It is accepted that the development will not impact on the wider hydrogeology of the area. The site did flood in 1975. The proposed development does not alter the risk of future flooding, either to this property or to neighbouring properties.

- 1.11. Requirements for further information and/or clarification are discussed in Section 4 and summarised in Appendix 2.

2.0 INTRODUCTION

- 2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 8th February 2016 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 27A Lambolle Road, NW3 4HS, Reference 2015/6692/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) 4: Basements and Lightwells.
 - Camden Development Policy (DP) 27: Basements and Lightwells.
 - Camden Development Policy (DP) 23: Water.
- 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 Audit Instruction described the planning proposal as "*Excavation of additional floor space at lower ground level.*"
- 2.6. The Audit Instruction also confirmed 27A Lambolle Road does not involve, or neighbour, listed buildings.

2.7. CampbellReith accessed LBC's Planning Portal on 21st January 2016 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment Report (BIA)
- Geotechnical, Hydrological and Hydrogeological Assessment
- Planning Application Drawings consisting of
 - Existing Side Elevations, Sections and Plan
 - Proposed Side Elevations, Sections and Plan
 - Location Plan

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	BIA.
Is data required by Cl.233 of the GSD presented?	Yes	
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	Yes	BIA.
Are suitable plan/maps included?	Yes	BIA.
Do the plans/maps show the whole of the relevant area of study and do they show it in sufficient detail?	Yes	BIA.
Land Stability Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	BIA Section 4.
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	BIA Section 4.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	BIA Section 4.
Is a conceptual model presented?	Yes	BIA and Geotechnical, Hydrological and Hydrogeological Assessment.
Land Stability Scoping Provided?	Yes	BIA Section 5.

Item	Yes/No/NA	Comment
Is scoping consistent with screening outcome?		
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	BIA Section 5.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	BIA Section 5.
Is factual ground investigation data provided?	Yes	BIA and Geotechnical, Hydrological and Hydrogeological Assessment.
Is monitoring data presented?	Yes	Geotechnical, Hydrological and Hydrogeological Assessment Section 3.4.
Is the ground investigation informed by a desk study?	Yes	Geotechnical, Hydrological and Hydrogeological Assessment Section 2.4.
Has a site walkover been undertaken?	No	Not known.
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	Proposed basement extension is bounded by owner's basement. No information on any other basements in the vicinity.
Is a geotechnical interpretation presented?	Yes	BIA.
Does the geotechnical interpretation include information on retaining wall design?	No	
Are reports on other investigations required by screening and scoping presented?	No	Geotechnical, Hydrological and Hydrogeological Assessment presented, but no Structural Method Statement/Feasibility Report or drawings provided.

Item	Yes/No/NA	Comment
Are baseline conditions described, based on the GSD?	Yes	BIA.
Do the base line conditions consider adjacent or nearby basements?	Yes	The owner's building has a basement founded at a similar level.
Is an Impact Assessment provided?	Yes	BIA Section 7.
Are estimates of ground movement and structural impact presented?	No	Impact on neighbours will be small provided good workmanship.
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	Yes	
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	Yes	A monitoring plan is proposed.
Has the need for monitoring during construction been considered?	Yes	BIA Section 7.4.
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?	No	No Structural Method Statement/Structural Feasibility Report and drawings have been presented.
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	Yes	
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	No	No Structural Method Statement/Structural Feasibility Report and drawings have been presented.

Item	Yes/No/NA	Comment
Does report state that damage to surrounding buildings will be no worse than Burland Category 2?	No	BIA does not refer to the Burland Scale but states that impact on neighbours will be small provided good workmanship.
Are non-technical summaries provided?	No	

4.0 DISCUSSION

- 4.1. The current BIA, which has been prepared by LBH Wembley. appears to be thorough and undertaken by competent persons. No structural method statement/feasibility report or drawings have been provided.
- 4.2. The existing basement on the property is to be extended by the proposed basement, which will be at the same depth. As these are founded at a similar level no significant ground movements are expected to the owner's property.
- 4.3. On the side of the proposed basement extension part of the neighbouring property, 25 Lambolle Road, will be undermined. The party wall is proposed to be deepened by conventional underpinning techniques. There is no prediction of ground movements or level of building damage expected. It is agreed that with good workmanship, ground movements should be small. As noted in the BIA, a structural method statement/feasibility report and drawings should be provided. These should contain an indicative permanent and temporary works construction sequence and outline the assumptions made in the design of the retaining walls, foundations and slab. Mitigation measures to restrict damage to Burland Category 1 should also be described.
- 4.4. The LBC Instruction to proceed with the audit identified that the basement proposal either doesn't involve a listed building or is not located adjacent to listed buildings.
- 4.5. The BIA has identified that the proposed basement is underlain by the London Clay which extend from 0.8m below ground level to at least 4.6 metres below ground level. Details as to how the existing basement will be tied to the proposed basement have not been included in the BIA. It also doesn't include details on how the joint between the old and the new will be sealed.
- 4.6. The area of hardstanding on the site will not be significantly increased and is unlikely to affect the adjacent properties and nearby water courses.
- 4.7. The proposed basement is unlikely to encounter the groundwater table during construction. The site investigation did not encounter the groundwater table.
- 4.8. There is no prediction of ground movements or level of building damage expected. It is agreed that with good workmanship, ground movements should be small. As noted in the BIA, a structural method statement/feasibility report and drawings should be provided. These should contain an indicative permanent and temporary works construction sequence and outline the assumptions made in the design of the retaining walls, foundations and slab. Mitigation measures to restrict damage to Burland Category 1 should also be described.

- 4.9. A proposal is made for a monitoring plan. Monitoring of the neighbouring property that will be undermined during excavation and construction is recommended.
- 4.10. It is accepted that there are no slope stability concerns regarding the proposed development.
- 4.11. The site flooded in 1975. A Flood Risk Assessment confirms the proposed basement will have no additional impact with regard to flooding of either the owner's property or of neighbouring properties.

5.0 CONCLUSIONS

- 5.1. The BIA has been prepared by an established engineering consultant possessing suitable qualifications.
- 5.2. The proposed development comprises of an extension to an existing basement so that the combined new and existing basement will occupy the full footprint of the house. The basement is founded in the London Clay.
- 5.3. It is unlikely that the groundwater table will be encountered during basement foundation excavation.
- 5.4. Conventional underpinning is proposed for the affected party wall between 25 and 27 Lambolle Road. As noted in the BIA, the construction methodology remains to be clarified. A structural feasibility report is required which contains a construction sequence and outline design for retaining walls, foundations and the slab.
- 5.5. Movement monitoring is proposed. There is no prediction of ground movements or level of building damage expected, but it is agreed that with good workmanship ground movements should be small and limited to neighbouring properties. The structural engineering information should include a description of mitigation measures employed to restrict damage to Burland Category 1.
- 5.6. It is accepted that the surrounding slopes to the development site are stable.
- 5.7. It is accepted that the development will not impact on the wider hydrogeology of the area. The site did flood in 1975. The proposed development does not alter the risk of future flooding, either to this property or to neighbouring properties.
- 5.8. In summary, the BIA has identified the potential impacts arising from the basement proposals and recommends suitable mitigation where required.

Appendix 1: Residents' Consultation Comments

Residents' Consultation Comments

Surname	Address	Date	Issue raised	Response
Korpac	44A Lambolle Road	23/01/16	Concerns regarding damage to property	See Sections 4.3 and 5.5.

Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	Stability	Indicative calculations for retaining walls, slabs and foundation pressures required.	Open	
2	Stability	Proposed mitigation measures to limit damage to Burland Category 1 to be provided.	Open	
3	Stability	Indicative permanent and temporary works sequence required.	Open	
4				
5				
6				
7				
8				

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Appendix 3: Supplementary Supporting Documents

None