CampbellReith
consulting engineers

# 267 Eversholt Street
# London NW1 1BA

## Basement Impact Assessment
## Audit

For

London Borough of Camden

Project Number: 12066-70
Revision: F1

January 2016

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## Document History and Status

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| D1 | 20/11/2015 | Comment | SAjw12066-70-20112015-267 Eversholt-D1.doc | S Ash | E Brown | E Brown |
| F1 | 28/01/2016 | Final | SAjw12066-70-28012016-267 Eversholt-F1.doc | S Ash | E Brown | E Brown |
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## Document Details

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| Author | Stephen Ash C.Eng MIStruct E MICE |
| Project Partner | E M Brown, BSc MSc CGeol FGS |
| Project Number | 12066-70 |
| Project Name | 267 Eversholt Street NW1 1BA |
| Planning Reference | 2015/5206/P |

## Contents



## Appendix

## 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 267 Eversholt Street London NW1 1BA (planning reference 2015/5206/P). The basement is considered to fall within Category B as defined by the Terms of Reference.

1.2. The basement construction is complete and this is a retrospective application.

1.3. A full Basement Impact Assessment was not available therefore this audit is limited to the Basement Impact Screening Report which is concerned with 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.

1.4. 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.

1.5. The Basement Impact Screening Report (BISR) has been prepared by well-known firms of Geo-Environmental consultants using individuals who possess suitable qualifications in respect to Subterranean flow. Details of the Engineering Consultant's qualifications were confirmed in January 2016.

1.6. No structural proposals, designs, method statements or details of the form of construction are contained in the BISR and no review the structural design could be carried out. Subsequently issued structural information indicates the basement has been constructed with traditional reinforced concrete retaining walls.

1.7. The BISR has confirmed that the proposed basement will be founded within the London Clay, however this is based upon local record data and no site specific ground investigations were carried out.

1.8. A vertical and horizontal ground movement assessment was carried out based upon anticipated soil parameters, this indicated potential for damage as negligible. Details of any pre-as past-construction surveys or monitoring should be provided.

1.9. The BISR indicates the site is flat with no slopes greater than 7 degrees.

1.10. It is accepted the basement construction will not impact subterranean or surface water flows.

## 2.0 INTRODUCTION

2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 22 October 2015 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the retrospective Planning Submission documentation for 267 Eversholt Street NW1 1BA Reference 2015/5206/P.

2.2. The Audit was carried out in accordance with the Terms of Reference set by LBC. It reviewed the *Basement Impact Screening Report* 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 to create basement level and ground floor rear extension to enlarge the retail shop."*

2.6. CampbellReith accessed LBC's Planning Portal on 11 November 2015 and gained access to the following relevant documents for audit purposes:

- Basement Impact Screening Report Version 2.0 (BISR)
- Planning Application Drawings consisting of

Location Plan

Existing Plans and Elevations

Proposed Plans and Elevations

2.7. Additional supporting information was received by email on 12 January 2016. .

- Existing Photographs Report (B) – H&D Partners
- Garden Boundary Wall Details – H&D Partners
- Retaining Wall Calculations – H&D Partners
- Design Philosophy – H&D Partners

## 3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

| Item | Yes/No/NA | Comment |
|---|---|---|
| Are BIA Author(s) credentials satisfactory? | Yes | Originally BISR only submitted. Structural Engineer now confirmed as CEng. |
| Is data required by Cl.233 of the GSD presented? | No | No work programme, construction method, reference to other permits indicated. |
| 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 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:<br>Have appropriate data sources been consulted?<br>Is justification provided for 'No' answers? | Yes | |
| Hydrogeology Screening:<br>Have appropriate data sources been consulted?<br>Is justification provided for 'No' answers? | Yes | |
| Hydrology Screening:<br>Have appropriate data sources been consulted?<br>Is justification provided for 'No' answers? | Yes | |
| Is a conceptual model presented? | No | |
| Land Stability Scoping Provided?<br>Is scoping consistent with screening outcome? | Yes | |

| Item | Yes/No/NA | Comment |
|---|---|---|
| Hydrogeology Scoping Provided?<br>Is scoping consistent with screening outcome? | NA | No potential impacts identified in screening. |
| Hydrology Scoping Provided?<br>Is scoping consistent with screening outcome? | NA | No potential impacts identified in screening. |
| Is factual ground investigation data provided? | No | No site specific data presented report based upon desk top study only. |
| Is monitoring data presented? | No | No site specific data presented report based upon desk top study only. |
| Is the ground investigation informed by a desk study? | No | No site specific data presented report based upon desk top study only. |
| Has a site walkover been undertaken? | Yes | |
| Is the presence/absence of adjacent or nearby basements confirmed? | Yes | Partial basements to 265/263 and 261 noted. |
| Is a geotechnical interpretation presented? | No | Generic, non site specific comments. |
| Does the geotechnical interpretation include information on retaining wall design? | NA | |
| Are reports on other investigations required by screening and scoping presented? | NA | None identified. |
| Are baseline conditions described, based on the GSD? | Yes | |
| Do the base line conditions consider adjacent or nearby basements? | Yes | |
| Is an Impact Assessment provided? | Yes | |

| Item | Yes/No/NA | Comment |
|---|---|---|
| Are estimates of ground movement and structural impact presented? | Yes | Based upon anticipated soil conditions and assumed level of clay. |
| 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? | No | Basement already constructed. |
| Has the need for monitoring during construction been considered? | No | Basement already constructed. |
| Have the residual (after mitigation) impacts been clearly identified? | No | Basement already constructed. |
| Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained? | No | No confirmation of existing site levels, or details of basement structure. |
| 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? | Yes | |
| Does report state that damage to surrounding buildings will be no worse than Burland Category 2? | Yes | Yes, based upon anticipated soil conditions. |
| Are non-technical summaries provided? | Yes | |

## 4.0 DISCUSSION

4.1. This audit references the Basement Impact Screening Report (BISR) produced by Geo-Environmental Services Ltd. The report has been updated to Version 2.0 and confirms that the basement has already been constructed.

4.2. Normally a Basement Impact Assessment (BIA) would contain additional information the BISR in particular respect to construction methodology, mitigation proposals and monitoring of movements during the site works. However, as the BIA is to support a retrospective planning application, this information is not relevant. As the basement has already been constructed the relevant potential impacts on subterranean flows and surface water, and long term impacts stability.

4.3. The BISR has been carried out by a well-known firm of Geo-Environmental consultants, Geo-Environmental Services Ltd technical whose individuals concerned in its production have suitable qualifications.

4.4. No structural documents were presented on the planning portal with the original information and it was therefore not possible to determine or comment on the structural design or the qualifications of the structural designer. This information was requested and structural calculations and philosophy documents were received in January 2016.

4.5. The basement consists of a single storey extension to an existing basement, the BISR indicates a depth of around 2.7m from street level.

4.6. The BISR has indicated that the basement is likely to be founded in the London Clay; this conclusion is based upon British Geological Survey mapping and local historic borehole information. It is accepted this London Clay will be the likely bearing stratum however this was not proven with site specific investigations, and no records of soils encountered during the works are provided.

4.7. London Clay is identified as the shallowest stratum. The BISR indicates that no significant structural distress was noted to the adjacent buildings, and concludes that no risk of shrink/swell exists on the site. It is not known if any trees were removed or affected by the basement construction which could result in heave. This should be confirmed.

4.8. A Ground Movement Assessment (GMA) has been carried out for both horizontal and vertical movements and these results have been considered against the Burland scale to indicate a negligible risk of structural damage to the adjacent buildings. As no site specific ground investigations have been undertaken, the GMA is based upon assumed data from the expected soils. The GMA results are further limited as the form of construction is unknown, the BISR

indicates the party walls were underpinned however no confirmation of temporary propping or final construction detail is presented. It is not known whether only pre or post condition surveys or monitoring were undertaken. This should be confirmed.

4.9. The stability screening confirms that the site relatively flat with no slopes greater than 7 degrees which could lead to stability issues, however this element cannot be verified from the BISR. Confirmation of existing site levels was received in January 2016.

4.10. It is accepted that the there are no potential impacts to subterranean and surface water flows from the basement construction.

## 5.0 CONCLUSIONS

5.1. The BISR confirms the basement has already been constructed and this is a retrospective application.

5.2. The BISR is limited to screening and scoping and does not contain the information that a standard BIA would present. The audit is limited in this respect and is limited to potential impacts on the water environment and long term stability.

5.3. The BISR has been carried out by a well-known firm Geo-Environmental Consultants using individuals who possess suitable qualifications for the screening and scoping process. Additional structural philosophy and retaining wall calculations produced by H&D Partners were provided in January 2016. The author is a chartered engineer.

5.4. No structural drawings or calculations are included in the original application. Structural philosophy and calculations for the basement have subsequently been provided to demonstrate adequate support.

5.5. Sunan Architecture (11/01/2016) has confirmed no trees were removed or otherwise affected by the basement construction.

5.6. The BISR indicates that the surrounding slopes to the development site are stable; this is confirmed by the 'OS Terrain' provided on 11/01/2016

5.7. It is accepted that there are no potential impacts to subterranean and surface water flows from the basement construction.

# Appendix 1: Residents' Consultation Comments

Residents' Consultation Comments

| Surname | Address | Date | Issue raised | Response |
|---|---|---|---|---|
| Phillips | Harrington SQ | 9/10/15 | Building works | Non-technical comment and not applicable to the audit |
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# Appendix 2: Audit Query Tracker

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Audit Query Tracker

| Query No | Subject | Query | Status | Date closed out |
|---|---|---|---|---|
| 1 | Stability | Details of the retaining wall design to be provided | H&D Calculations | 28/01/16 |
| 2 | Stability | Confirmation of slopes less than 7 degrees, to be provided | OS Terrain Data | 28/01/16 |
| 3 | Stability | Pre-and post-construction surveys and monitoring to be provided | Photographic Report | 28/01/16 |
| 4 | Stability | Confirmation required of removal or impact on any nearby trees | Email 11/01/2016 | 28/01/16 |
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## Appendix 3: Supplementary Supporting Documents

None

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