

**25 Rathbone Place,
London, W1T 1JB**

**Basement Impact Assessment
Audit**

For

London Borough of Camden

Project Number: 13693-85
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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

Appendix

- Appendix 1: Consultation Responses
- 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 25 Rathbone Place, W1T 1JB (planning reference 2022/4321/P). The basement is considered to fall within Category A 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 Basement Impact Assessment (BIA) has been carried out by engineering consultants Geotechnical & Environmental Associates (GEA) and the individuals concerned in its production have suitable qualifications.
- 1.5. It is proposed to deepen the floor of the existing basement by 600mm. From the site investigation information it is understood no underpinning will be required. The BIA recommends to undertaken additional trial pits along the perimeter to confirm the depths of the existing foundations and competent ground.
- 1.6. The Lynch Hill Gravel is a Secondary A Aquifer and nearby historic ground investigation confirmed the presence of groundwater approximately 6.00m bgl. No groundwater was encountered during the site specific ground investigation.
- 1.7. A GMA is not required at this stage but will be required if underpinning is proposed. A structural proposal will also be required to inform the GMA.
- 1.8. No proposals are provided for a movement monitoring strategy during excavation and construction.
- 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 and is not in an area subject to flooding.
- 1.11. It can be confirmed that the BIA complies with the requirements of CPG: Basements provided the notes made in Appendix 2 are considered.

2.0 INTRODUCTION

- 2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 07/11/2022 to carry out a Category A audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 25 Rathbone Place, W1T 1JB and Planning Reference 2022/4321/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 (CPG): Basements. January 2021.
 - Guidance for Subterranean Development (GSD). Issue 01. November 2010. Ove Arup & Partners.
 - Fitzrovia Neighbourhood Plan
- 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 *"Erection of rear extension at second floor level, addition of roof terrace on third floor roof, balcony at rear first floor level, Juliet balconies at rear second and third floor level floor levels and alterations to rear fenestration all in connection with the change of use of first to third floors from ancillary pub accommodation (Sui Generis) to residential flats (Class C3) comprising one x 1-bed and two x 2-bed. Excavation at basement level to increase floor to ceiling heights and a new extract duct to rear elevation associated with the existing public house".*

The Audit Instruction confirmed 25 Rathbone Place did not involve, nor was a neighbour to, listed buildings.

2.6. CampbellReith accessed LBC's Planning Portal on 29/11/2022 and gained access to the following relevant documents for audit purposes:

- Desk Study, Ground Investigation & Basement Impact Assessment Report (BIA) by GEA Ltd dated September 2022, Revision 0, ref – J22235
- Planning Application Drawings by f&t architects, consisting of:
 - Location Plan
 - Existing Plans, Revision P1, dated 8th September 2022
 - Proposed Plans Revision P3, dated 30th September 2022
- Design & Access Statement, dated September 2022, ref No.- 25446

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	Section 1.3.2
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	However, founding depths to be confirmed.
Are suitable plan/maps included?	Yes	Appendix of BIA
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	Section 3.1 Of BIA
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 3.1 Of BIA
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 3.3 Of BIA
Is a conceptual model presented?	Yes	Trial pits are undertaken to confirm strata to maximum depth of 1.40m bgl.
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 4.0 of BIA

Item	Yes/No/NA	Comment
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	NA	No items taken forward from Screening
Is factual ground investigation data provided?	Yes	Section 5.0 of BIA
Is monitoring data presented?	No	No groundwater monitoring was undertaken as part of the site investigation. However, monitoring levels for a site nearby were provided.
Is the ground investigation informed by a desk study?	Yes	Section and 2.0 of BIA
Has a site walkover been undertaken?	Yes	Section 9.3 of BIA
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	Trial Pit records indicate the presence of neighbouring basements
Is a geotechnical interpretation presented?	Yes	Section 6 and 7 of BIA
Does the geotechnical interpretation include information on retaining wall design?	No	
Are reports on other investigations required by screening and scoping presented?	NA	None required.
Are the baseline conditions described, based on the GSD?	Yes	
Do the base line conditions consider adjacent or nearby basements?	Yes	Confirmed as part of trial pit exercise.
Is an Impact Assessment provided?	Yes	Section 9.0 of BIA

Item	Yes/No/NA	Comment
Are estimates of ground movement and structural impact presented?	NA	Neighbouring foundations are considered to be lower than the proposed basement formation level.
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	Additional trial pits to be undertaken along perimeter walls to confirm depth of neighbouring foundations along the entire perimeter of the basement.
Has the need for monitoring during construction been considered?	No	It is not considered necessary.
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	Neighbouring foundations have been found to be lower than the proposed basement formation level.
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 1?	NA	Stability of neighbouring buildings is not supposed to be affected by the proposed development.
Are non-technical summaries provided?	Yes	

4.0 DISCUSSION

- 4.1. The Basement Impact Assessment (BIA) has been carried out by engineering consultants Geotechnical & Environmental Associates (GEA) and the individuals concerned in its production have suitable qualifications.
- 4.2. The proposal involves lowering the floor of an existing basement by 600mm to create additional headroom. The existing basement depths varies due to the presence of a cellar below underpass passage over Percy Mews at a depth of 1.55m below ground level (bgl) and the basement area over the building footprint has a depth of 2.20m bgl.
- 4.3. A Ground Investigation (GI) has been undertaken in the form of two trial pits within the existing basement by party walls of No.s 24 and 26 Rathbone Place to a maximum depth of c.1.40m bgl. The findings indicate the presence of Made Ground to c. 1.15m bgl in TP2 followed by Lynch Hill Gravel to depth and no groundwater was encountered during the works.
- 4.4. The GI revealed that the party walls with Nos 24 and 26 Rathbone Place are founded at depths of 1.40m and 0.95m respectively.
- 4.5. The BIA notes a historic GI was undertaken 60m south of the site and probing undertaken indicate the base of the gravel to be at 4.50m below basement level and groundwater monitoring undertaken indicate ground water to be approximately around 6.00m bgl, which is below the proposed basement formation level.
- 4.6. The hydrogeology screening exercise has identified the presence of a Secondary A aquifer and historic GI groundwater monitoring indicate the presence of groundwater at c. 6.00m bgl.
- 4.7. The screening for hydrology indicates there will be no change in impermeable surface areas and the risk of surface water flooding is very low and hence the responses are not taken forward to scoping. It is accepted the proposed development will not affect hydrology of the surrounding area.
- 4.8. The BIA notes the Made Ground observed next to the party wall with 26 Rathbone Place (TP2) are deep compared to TP1. The BIA suggests that, if loads are to be increased as part of the structural proposal, this section of wall may need to be underpinned. The BIA recommends that additional trial pits be undertaken along the perimeter walls to confirm the depth of existing foundations and competent ground.

- 4.9. A Ground Movement Assessment (GMA) is not provided at this stage. If it becomes necessary for underpinning to be undertaken a GMA will be required to ensure movements are limited within Category 1 damage of the Burland Scale to neighbouring structures and infrastructure. An outline structural proposal will also be required to inform the GMA.
- 4.10. It is accepted that there are no slope stability concerns regarding the proposed development, and it is not in an area prone to flooding.

5.0 CONCLUSIONS

- 5.1. The Basement Impact Assessment (BIA) has been carried out by engineering consultants Geotechnical & Environmental Associates (GEA) and the individuals concerned in its production have suitable qualifications.
- 5.2. It is proposed to deepen the floor of the existing basement by 600mm. From the site investigation information it is understood no underpinning will be required. The BIA recommends to undertaken additional trial pits along the perimeter to confirm the depths of the existing foundations and competent ground.
- 5.3. The Lynch Hill Gravel is a Secondary A Aquifer and nearby historic ground investigation confirmed the presence of groundwater approximately 6.00m bgl. No groundwater was encountered during the site specific ground investigation.
- 5.4. A GMA is not required at this stage but will be required if underpinning is proposed. A structural proposal will also be required to inform the GMA.
- 5.5. No proposals are provided for a movement monitoring strategy during excavation and construction.
- 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 and is not in an area subject to flooding.
- 5.8. It can be confirmed that the BIA complies with the requirements of CPG: Basements provided the note made in Appendix 2 are considered as part of the next design stages.

Appendix 1: Consultation Responses

None

Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	Land Stability	<p>Additional trial pits have been recommended to confirm depth of existing foundation and competent ground along perimeter walls.</p> <p>Foundation depths may need to be reviewed if there is an increase in structural loads and the use of underpinning may be required.</p> <p>If underpinning is required a Ground Movement Assessment (GMA) will need to be undertaken. Structural proposal to be undertaken to inform the GMA.</p>	Note Only	

Appendix 3: Supplementary Supporting Documents

None

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