CampbellReith
consulting engineers

Basement Impact Assessment Audit

48 Mornington Terrace, London NW1 7RT

For
London Borough of Camden

Project No.
14006-74

Date
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Campbell Reith Hill LLP
15 Bermondsey Square
London
SE1 3UN

T: +44 (0)20 7340 1700
E: london@campbellreith.com
W: www.campbellreith.com

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Author	E. Pike, MEng (Hons) ACGI CEng MICE RoGEP
Project Partner	E M Brown, BSc MSc CGeol FGS
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CONTENTS

APPENDICES

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 48 Mornington Terrace, London, NW1 7RT (planning reference 2024/0940/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 has been carried out by engineering consultants Geotechnical & Environmental Associates and the individuals concerned in its production have suitable qualifications.

1.5 48 Mornington Terrace is a Grade II Listed Building located within the Camden Town Conservation Area.

1.6 The proposed development comprises a small extension to the existing lower ground floor structure (2.50m by 2.50m in plan and approximately 2.30m deep), which will extend a short distance into the rear garden to form a new shower room.

1.7 The new extension will be constructed using reinforced concrete walls installed using hit and miss underpinning with sufficient temporary works to support the adjacent ground.

1.8 Ground conditions are anticipated to comprise a thin cover of Made Ground over London Clay. Groundwater is not anticipated to be encountered, however, sump pumping is to be used if there is any water ingress into excavations. It is accepted that the development will not impact on the wider hydrogeology of the area.

1.9 It is accepted that the development will not impact on the wider hydrology of the area and is not in an area subject to flooding. A positive pumped device is to be installed in the proposed shower room to further protect the site from sewer flooding.

1.10 It is accepted that there are no land stability concerns regarding the proposed development.

1.11 No impacts to neighbouring structures have been identified that might require ground movements and a building damage category to be calculated. Nonetheless, movement monitoring works will be carried out during excavation, including movement monitoring of the adjoining properties.

1.12 It can be confirmed that the BIA complies with the requirements of CPG: Basements.

2.0 INTRODUCTION

2.1 CampbellReith was instructed by London Borough of Camden (LBC) on 3rd May 2024 to carry out a Category A audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 48 Mornington Terrace, London, NW1 7RT, planning reference 2024/0940/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.

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 "Excavation of basement extension to rear of site to create shower room with associated external alterations including lightwell and steps to garden."

2.6 The Audit Instruction confirmed 48 Mornington Terrace is a Grade II Listed Building located within the Camden Town Conservation Area.

2.7 CampbellReith accessed LBC's Planning Portal on 24th May 2024 and gained access to the following relevant documents for audit purposes:

- Structural Engineers Report (SER) by SG Structures dated February 2024, reference 23BE.
- Basement Impact Assessment Report (BIA) by Geotechnical & Environmental Associated Limited (GEA) dated 4th March 2024, reference J24034, Revision 0.
- BS5837:2012 Tree Survey and Arboricultural Impact Assessment by GHA Trees dated 20th February 2024, reference GHA/DS/333160:24.

- Combined Planning, Heritage and Design & Access Statement by Crawford and Gray Architects Ltd dated March 2024.
- Existing floor plans, elevations and sections by Crawford and Gray Architects Ltd, drawing numbers 516.S101 to 516.S104 dated 10th July 2023.
- Proposed floor plans, elevations and sections by Crawford and Gray Architects Ltd, drawing numbers 516.101 to 516.104 dated 10th July 2023.

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	1.3.2 of 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	
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?	Yes	4.2 of BIA.
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	4.1 of BIA.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	4.3 of BIA.
Is a conceptual model presented?	Yes	3.3 of BIA.
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	5.1 of BIA.

Item	Yes/No/NA	Comment
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	N/A	No items brought forward to scoping.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	N/A	No items brought forward to scoping.
Is factual ground investigation data provided?	Yes	Appendix of BIA.
Is monitoring data presented?	No	Groundwater observations in foundation inspection pits only.
Is the ground investigation informed by a desk study?	Yes	
Has a site walkover been undertaken?	Yes	3.00 of SER.
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	2.1.1 of BIA.
Is a geotechnical interpretation presented?	No	
Does the geotechnical interpretation include information on retaining wall design?	No	
Are reports on other investigations required by screening and scoping presented?	Yes	Arboricultural report.
Are the baseline conditions described, based on the GSD?	Yes	Section 2 and 3 of BIA.
Do the base line conditions consider adjacent or nearby basements?	Yes	2.1.1 of BIA.

Item	Yes/No/NA	Comment
Is an Impact Assessment provided?	Yes	Section 6 of BIA.
Are estimates of ground movement and structural impact presented?	N/A	No neighbouring structures identified within vicinity of proposed development that could be affected.
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	Section 5 of SER.
Has the need for monitoring during construction been considered?	Yes	Section 5 of SER.
Have the residual (after mitigation) impacts been clearly identified?	Yes	Section 7 of BIA.
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	N/A	No neighbouring structures identified within vicinity of proposed development that could be affected.
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?	N/A	No neighbouring structures identified within vicinity of proposed development that could be affected.

Item	Yes/No/NA	Comment
Are non-technical summaries provided?	Yes	SER and BIA.

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 Combined Planning, Heritage and Design & Access Statement confirmed 48 Mornington Terrace to be a Grade II Listed Building located within the Camden Town Conservation Area.

4.3 The site currently comprises a mid-terrace four-storey house with a lower ground floor level and a rear extension at lower ground and ground floor levels. The proposed development comprises the demolition of an existing extension and replacement with a larger extension at lower and ground floor levels. The BIA addresses the inclusion of a small extension to the existing lower ground floor structure only (2.50m by 2.50m in plan and approximately 2.30m deep), which will extend a short distance into the rear garden to form a new shower room. The rest of the proposed development has already received planning permission under a separate planning application.

4.4 The adjoining properties, No. 47 and 49 Mornington Terrace, comprise similar four storey buildings with existing lower ground floor levels with similar rear extensions with lower ground floor terrace/lightwell areas extending out into the existing rear gardens.

4.5 The BIA includes screening and scoping assessments informed by the desk study, nearby historical boreholes and site-specific ground investigation carried out on site to confirm near surface ground conditions and existing foundations.

4.6 Ground conditions were revealed to comprise 0.50m of Made Ground over the London Clay, which was proven to 2.60m below ground level (bgl). The London Clay is understood to be present to between 30m to 35m bgl. Groundwater was not reported to be encountered in the foundation inspection pits.

4.7 The subterranean (groundwater) flow screening has not identified any potential issues that require further assessment. As such, it is accepted that the proposed development will not impact the hydrogeology of the surrounding area.

4.8 The surface flow and flooding screening has not identified any potential issues that require further assessment. As such, it is accepted that the proposed development will not impact the hydrology of the surrounding area. A positive pumped device is to be installed in the proposed shower room to further protect the site from sewer flooding.

4.9 The land stability screening has identified that the London Clay is the shallowest strata at the site and that the soils are prone to shrink swell subsidence which have subsequently been taken forward to the scoping assessment. The screening confirms the basement is greater than 10m from Mornington Terrace and that the proposed foundations will not result in a significant increase in foundation depth with respect to neighbouring properties.

4.10 The land stability scoping and impact assessment concludes that whilst several tree ferns are to be felled as part of the proposed development, there are no trees to be removed and that desiccation of the shallow soils was not recorded in the foundation inspection pits undertaken on site. The proposed foundations are to extend to a depth which will bypass any desiccated soils and found below the required depth in accordance with NHBC. As such, it is accepted that the proposed development will not impact the land stability of the surrounding area.

4.11 Whilst no geotechnical interpretation has been provided, the Structural Engineers Report (SER) confirms the proposed net bearing pressure at formation level is 27.5kN/m^2, which is reported to be low and settlement is not anticipated to be of concern. The SER reports that the weight of the new superstructure will counterbalance the effect of excavating the 2.3m of soil on site and will resist any heave forces.

4.12 The new extension will be constructed using reinforced concrete walls designed as a cantilever. Foundations will be installed using underpinning, carried out in a hit and miss sequence, with note made that the contractor would need sufficient temporary works to support the adjacent ground. Dewatering is not expected to be necessary, but if water is encountered, pumping from sumps is to be used on site. An outline temporary works sequence and drawings are provided in the SER.

4.13 No impacts to neighbouring structures have been identified that might require ground movements and a building damage category to be calculated. Nonetheless, movement monitoring works will be carried out during excavation, including movement monitoring of the adjoining properties.

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 48 Mornington Terrace is a Grade II Listed Building located within the Camden Town Conservation Area.

5.3 The proposed development comprises a small extension to the existing lower ground floor structure (2.50m by 2.50m in plan and approximately 2.30m deep), which will extend a short distance into the rear garden to form a new shower room.

5.4 The new extension will be constructed using reinforced concrete walls installed using hit and miss underpinning with sufficient temporary works to support the adjacent ground.

5.5 The site is anticipated to comprise a thin cover of Made Ground over London Clay. Groundwater is not anticipated to be encountered, however, pumps from sumps are to be used if there is any water ingress into excavations. It is accepted that the development will not impact the hydrogeology of the area.

5.6 It is accepted that the development will not impact on the wider hydrology of the area and is not in an area subject to flooding. A positive pumped device is to be installed in the proposed shower room to further protect the site from sewer flooding.

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5.8 No impacts to neighbouring structures have been identified that might require ground movements and a building damage category to be calculated. Nonetheless, movement monitoring works will be carried out during excavation, including movement monitoring of the adjoining properties.

5.9 It can be confirmed that the BIA complies with the requirements of CPG: Basements.

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Appendix 1

Consultation Responses

None

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Appendix 2

Audit Query Tracker

None

CampbellReith
consulting engineers

Appendix 3

Supplementary Supporting Documents

None

London

15 Bermondsey Square
London
SE1 3UN

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

Birmingham

Chantry House
High Street, Coleshill
Birmingham B46 3BP

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

Bristol

Unit 5.03,
HERE,
470 Bath Road,
Bristol BS4 3AP

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

Manchester

No. 1 Marsden Street
Manchester
M2 1HW

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