

51-52 Tottenham Court Road
W1T 2EH

Basement Impact Assessment
Audit

For
London Borough of Camden

Project Number: 12727-23
Revision: F1

January 2019

Campbell Reith Hill LLP
Friars Bridge Court
41-45 Blackfriars Road
London
SE1 8NZ

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

Document History and Status

Revision	Date	Purpose/Status	File Ref	Author	Check	Review
F1	January 2019	Comment	RNgw12985-23- 51-52 Tottenham Court Rd 02012019-F1.doc	RN	GW	GW

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 2015

Document Details

Last saved	02/01/2019 10:44
Path	RNgw12985-23- 51-52 Tottenham Court Rd 02012019-F1.doc
Author	R Nair, Btech(Hons) Msc GMICE
Project Partner	E M Brown, BSc MSc CGeol FGS
Project Number	12727-23
Project Name	51-52 Tottenham Court Road, W1T 2EH
Planning Reference	2018/3565/P

Contents

1.0 Non-technical summary 1

2.0 Introduction 2

3.0 Basement Impact Assessment Audit Check List 4

4.0 Discussion 8

5.0 Conclusions 10

Appendix

- 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 submitted as part of the Planning Submission documentation for 51-52 Tottenham Court Road (planning reference 2018/3565/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. CampbellReith previously audited a basement scheme at site (Camden planning reference no. 2016/2027/P).
- 1.4. The BIA has been prepared by Sinclair Johnston and Partners Limited using individuals who possess suitable qualifications.
- 1.5. The proposal is to lower the existing basement, extend the buildings' footprint horizontally to the rear and vertically by an additional storey to both Nos. 51 and 52 Tottenham Court Road.
- 1.6. The proposed scheme is considered to broadly reflect the previously audited schemes. As such, the conclusions of the audit report that was previously issued for the site (Reference no. 12336-87, dated 19th December 2017) remain valid.
- 1.7. The previous audit indicated that the proposed scheme met the policy criteria of LBC, with the requirement to confirm the final scheme design via a Basement Construction Plan (BCP), sufficient to demonstrate that stability and hydrogeological impacts are appropriately mitigated.

2.0 INTRODUCTION

- 2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 30th October 2018 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 51-52 Tottenham Court Road, W1T 2EH (planning reference 2018/3565/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 Basements. March 2018.
 - Camden Development Policy (DP) 27: Basements and Lightwells.
 - Camden Development Policy (DP) 23: Water.
 - Local Plan 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;
 - 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 new basement and lowering of existing basement floor level by 1.0m; installation of 2 x new shopfronts."*
- 2.6. CampbellReith accessed LBC's Planning Portal on 28th November 2018 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment prepared by Sinclair Johnston (Reference: 8781, dated June 2018).
- Construction Management Plan prepared by Caneparo Associates (dated July 2018).
- Planning Application Drawings consisting of:

Location Plan (Dwg no. G100_P_00_001, G100_P_AL_001).

Existing Plans and sections (Dwg no. JA12_P_B1_001, JA12_E_NE_001, JA12_P_00_001, JA12_S_AA_001, JA12_S_BB_001, JA12_S_CC_001, JA12_D_TY_001, JA12_D_TY_002, F000_P_AL_001).

Proposed Plans and sections (Dwg no. JC20_E_NE_002, JC20_P_00_002, G100_P_AL_001, F000_P_006, C645_E_NE_002, C645_P_00_004, C645_S_AA_004, C645_S_BB_004, C645_S_CC_004, C645_D_TY_001, C645_D_TY_002, JC20_S_AA_002, G100_P_AL_001, JC20_S_BB_002, JC20_S_CC_002).

- Design & Access Statement prepared by Squire & Partners (Reference: 13081, dated July 2018).
- Planning Comments and Responses.

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	The BIA has been prepared by Sinclair Johnston & Partners Limited and the checker has CEng MICE MStructE qualification. The ground movement assessment report (appended in Appendix H of the revised BIA) has been checked by a Chartered Geologist (CGeol).
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	Refer Basement Impact Assessment, dated June 2018.
Are suitable plan/maps included?	No	However, it is accepted that required maps have been consulted.
Do the plans/maps show the whole of the relevant area of study and do they show it in sufficient detail?	NA	
Land Stability Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Refer Basement Impact Assessment, dated June 2018.
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Refer Basement Impact Assessment, dated June 2018.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Refer Basement Impact Assessment, dated June 2018.
Is a conceptual model presented?	Yes	Refer Basement Impact Assessment, dated June 2018, and Site Investigation Report, dated January 2016.

Item	Yes/No/NA	Comment
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	Refer Basement Impact Assessment, dated June 2018.
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Refer Basement Impact Assessment, dated June 2018.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Refer Basement Impact Assessment, dated June 2018.
Is factual ground investigation data provided?	Yes	Refer Basement Impact Assessment, dated June 2018.
Is monitoring data presented?	Yes	Refer Site Investigation Report, dated January 2016 (Appendix B of BIA).
Is the ground investigation informed by a desk study?	Yes	Refer Site Investigation Report, dated January 2016 (Appendix B of BIA).
Has a site walkover been undertaken?	Yes	
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	Refer Basement Impact Assessment, dated June 2018.
Is a geotechnical interpretation presented?	Yes	Refer Basement Impact Assessment, dated June 2018, and Site Investigation Report, dated January 2016.
Does the geotechnical interpretation include information on retaining wall design?	Yes	Refer Ground Movement and Damage Impact Assessment (Appendix D of BIA)
Are reports on other investigations required by screening and scoping presented?	Yes	Ground Movement Assessment to determine the potential impact of the piled raft foundation on the London Underground Tunnel adjacent to the site.

Item	Yes/No/NA	Comment
Are the baseline conditions described, based on the GSD?	Yes	Refer Basement Impact Assessment, dated June 2018 and Site Investigation Report, dated January 2016 (Appendix B of BIA).
Do the base line conditions consider adjacent or nearby basements?	Yes	
Is an Impact Assessment provided?	Yes	Refer Basement Impact Assessment, dated June 2018; and Ground Movement and Damage Impact Assessment (Appendix D of BIA)
Are estimates of ground movement and structural impact presented?	Yes	Refer Ground Movement and Damage Impact Assessment (Appendix D of BIA)
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	Yes	Refer Basement Impact Assessment, dated June 2018.
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	Yes	Refer Basement Impact Assessment, dated June 2018.
Has the need for monitoring during construction been considered?	Yes	Refer Movement monitoring specification (Appendix F of BIA)
Have the residual (after mitigation) impacts been clearly identified?	Yes	Refer Basement Impact Assessment, dated June 2018.
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	Yes	However, robust structural monitoring should be implemented to ensure stability within Category 1.
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	Yes	Refer Basement Impact Assessment, dated June 2018.
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	Yes	Refer Basement Impact Assessment, dated June 2018.

Item	Yes/No/NA	Comment
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	Yes	Refer Basement Impact Assessment, dated June 2018.
Are non-technical summaries provided?	Yes	Refer Basement Impact Assessment, dated June 2018.

4.0 DISCUSSION

- 4.1. The Basement Impact Assessment (BIA) has been carried out by Sinclair Johnston & Partners and the individuals concerned in its production have suitable qualifications.
- 4.2. The current site arrangement consist of 2 adjacent mixed use 3 and 4 storey terraced properties with retail space at ground and basement levels and office and residential space on first, second and third floor.
- 4.3. The existing basement is rectangular in shape, set over circa 230m² in plan area, and founded at 2.40m bgl. It is proposed to construct a single storey basement beneath the full footprint of the ground floor with structural alterations to the ground and first floors, while retaining the existing second and third floor and a part of the first floor. The BIA states that neither No. 51 nor No. 52 Tottenham Court Road are listed buildings. However, neighbouring No.46 Tottenham Court Road, Nos. 64-67 Tottenham Court Road and Nos. 2-8 Goodge Street are Grade II Listed buildings.
- 4.4. The basement extension is to be constructed using a bottom-up method of construction, with the pile installation followed by a two-stage underpinning in a typical hit/miss sequence. The proposed basement consists of a single storey construction formed by lowering the existing basement at the front of the development site by approximately 1.10 metres and excavating the rear of portion of the site to the same level, by approximately 3.50 metres. The building's existing footprint will be extended horizontally, to the rear, and vertically by 1No. additional storey on both No.51 and No.52. An existing party/dividing wall between 51-52 Tottenham Road will be demolished.
- 4.5. It is noted that the second stage of underpinning will be undertaken immediately after the first stage has been constructed, and that the first stage will not be supporting the existing foundations until the second stage has been completed. The construction sequence indicates that retaining walls will be stiffly propped in both the temporary and permanent state, and that existing foundations will be supported by 'underpinned' ground beams supported on piles, with existing foundations supported by a Pynford Beam tied to the ground beams / piles.
- 4.6. The proposed scheme is considered to broadly reflect the previously audited schemes. As such, the conclusions of the audit report that was previously issued for the site (Reference no. 12336-87, dated 19th December 2017) remain valid. That audit report is provided in Appendix 3 for reference and should be read in full, which expands upon the summary presented in this audit.
- 4.7. It is accepted that there are no slope stability concerns regarding the proposed development and it is not in an area prone to flooding.

- 4.8. It is accepted that the scheme has avoided any potential impact on the local and wider hydrology and hydrogeology of the area, subject to assessment of the effects of resin grouting to be presented in a Basement Construction Plan.
- 4.9. Additional site investigation is to be undertaken to confirm the ground conditions and design parameters, to be presented within a BCP.
- 4.10. It's noted that utility and rail infrastructure assets may be impacted by the proposed works. Asset protection agreements should be entered into, as required by the asset owners.
- 4.11. The final scheme design is to be confirmed within a BCP, sufficient to demonstrate that potential stability impacts are appropriately mitigated. This includes confirmation that the proposed temporary works sequence is compatible with the findings of the additional site investigation to be undertaken.

5.0 CONCLUSIONS

- 5.1. CampbellReith previously audited a basement scheme at the site (ref 12336-87, December 2017) in relation to planning reference 2016/2027/P. That audit report is provided in Appendix 3 for reference and should be read in full, which expands upon the summary presented in this audit.
- 5.2. The previous audit indicated that the proposed scheme met the policy criteria of LBC, with the requirement to confirm the final scheme design via a Basement Construction Plan (BCP).
- 5.3. It's noted that utility and rail infrastructure assets may be impacted by the proposed works. Asset protection agreements should be entered into, as required by the asset owners.
- 5.4. Based on securing the required final information within a BCP, the requirements of CPG Basements have been met.

Appendix 1: Residents' Consultation Comments

Residents' Consultation Comments

Surname	Address	Date	Issue raised	Response
Development Planning Department, Thames Water	Maple Lodge STW, Denham Way, Rickmansworth, WD3 9SQ	26/10/18	Developer required to demonstrate the measures undertaken to minimise groundwater discharges into the public sewer.	To be assessed by the asset owner.
Transport for London		12/11/18	Impact of development on Strategic Road Network, Impact on LU tunnel, requirement for consultation with Crossrail 2 etc.	To be assessed by the asset owner.

Appendix 2: Audit Query Tracker

Refer to Audit 12336-87, December 2017, Appendix 3

Appendix 3: Supplementary Supporting Documents

CampbellReith Audit Report (Reference 12336-87, dated 19th December 2017)

London

Friars Bridge Court
41- 45 Blackfriars Road
London, SE1 8NZ

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

Surrey

Raven House
29 Linkfield Lane, Redhill
Surrey RH1 1SS

T: +44 (0)1737 784 500
E: surrey@campbellreith.com

Manchester

No. 1 Marsden Street
Manchester
M2 1HW

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

Bristol

Wessex House
Pixash Lane, Keynsham
Bristol BS31 1TP

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

UAE

Office 705, Warsan Building
Hessa Street (East)
PO Box 28064, Dubai, UAE

T: +971 4 453 4735
E: uae@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: Friars Bridge Court, 41- 45 Blackfriars Road, London SE1 8NZ
VAT No 974 8892 43