

Flat A, 36 Gaisford Street
London
NW5 2ED

Basement Impact Assessment
Audit

For
London Borough of Camden

Project Number: 12985-46

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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 (BIA) submitted as part of the Planning Submission documentation for Flat A, London NW5 2ED (planning reference 2018/5036/P). The basement is considered by the Applicant to fall within Category A, as defined by the Terms of Reference, which is to be determined as part of the audit process.
- 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 Martins Camisuli Architects. The qualifications of the author are not demonstrated to be in accordance with LBC guidance.
- 1.5. The proposed development comprises the extension of the existing basement into the rear garden. The BIA text and drawings provided do not adequately illustrate the final formation level and total depth of excavation required.
- 1.6. The proposed construction methodology is unclear. Whilst the BIA text states that no underpinning will take place, the drawings suggest underpinning of Party Walls may be necessary. It is stated that battered excavation will be utilised, but the feasibility of achieving this along Party Walls has not been demonstrated.
- 1.7. The BIA makes reference to site specific investigation data. This should be provided for review to confirm the hydrogeological assessment and statements on foundations. The London Clay is stated as underlying the site.
- 1.8. A Screening assessment has been presented. A number of the responses are either inadequately evidenced, not fully assessed or incorrect.
- 1.9. Clear information needs to be presented about the current and proposed impermeable site area. The BIA incorrectly states that the proposed development is not within a Critical Drainage Area.
- 1.10. The proposed re-profiling of the garden appears to result in a battered slope. This should be considered within the Screening assessment.

- 1.11. The BIA states that the proposed foundations will be formed on the London Clay. Assessment of shrink / swell susceptibility in relation to potential impacts to neighbours / Party Wall should be presented.
- 1.12. It should be noted that, where Screening elicits a 'Yes' response, Scoping is required. By definition, within the Terms of Reference, this would classify the proposed development as Category B for audit purposes, requiring a full BIA to be presented.
- 1.13. An outline construction programme should be provided.
- 1.14. Queries and requests for information are discussed in Section 4 and summarised in Appendix 2. Until the additional information requested is provided, the BIA does not meet the criteria of CPG Basements.

2.0 INTRODUCTION

- 2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 8 March 2019 to carry out a Category A Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for Flat A, 36 Gaisford Street, London, NW5 2ED, Camden Reference 2018/5036/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): Basements.
 - Camden Development Policy (DP) 27: Basements and Lightwells.
 - Camden Development Policy (DP) 23: Water.
 - The Local Plan (2017): 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; 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 planning portal describes the proposal as: *"Erection of a single storey rear extension at lower ground level and increase the width and height of the existing ground floor level rear extension"*.

The planning portal also confirmed that neither the site nor neighbouring properties are listed buildings.

2.6. CampbellReith accessed LBC's Planning Portal in April 2019 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment (ref 185, Screening Document Report) dated 6th December 2018 by Martins Camisuli Architects.
- Existing and proposed elevations, plans and sections dated October 2018 to February 2019 by Martins Camisuli Architects.

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	No	See CPG Basements
Is data required by Cl.233 of the GSD presented?	No	Ground conditions and construction methodologies to be confirmed; proposed formation level to be confirmed; outline construction programme to be provided.
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	No	Formation levels to be confirmed; Construction methodologies to be confirmed.
Are suitable plans/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?	No	Formation levels not confirmed; construction methodologies not confirmed; London Clay shrink / swell potential to be considered.
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	Assessment assumes London Clay underlies foundations; SI data to be provided.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	Current and proposed permeable to impermeable site areas to be confirmed; assessment to be provided, if required. Site is within Critical Drainage Area.
Is a conceptual model presented?	No	Further clarity required on methodology and depth of excavation.

Item	Yes/No/NA	Comment
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	No	Screening only presented
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Screening only presented
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	No	Screening only presented
Is factual ground investigation data provided?	No	SI referenced – to be provided for review.
Is monitoring data presented?	No	SI referenced – to be provided for review.
Is the ground investigation informed by a desk study?	No	SI referenced – to be provided for review.
Has a site walkover been undertaken?	Yes	
Is the presence/absence of adjacent or nearby basements confirmed?	No	Neighbouring foundations assumed at similar level.
Is a geotechnical interpretation presented?	No	Will be required if Category B audit determined to be necessary.
Does the geotechnical interpretation include information on retaining wall design?	No	Will be required if Category B audit determined to be necessary.
Are reports on other investigations required by screening and scoping presented?	No	Will be required if Category B audit determined to be necessary.

Item	Yes/No/NA	Comment
Are baseline conditions described, based on the GSD?	No	Formation levels to be confirmed; Construction methodologies to be confirmed; SI data to be provided.
Do the base line conditions consider adjacent or nearby basements?	Yes	BIA is based on assumptions.
Is an Impact Assessment provided?	No	Will be required if Category B audit determined to be necessary.
Are estimates of ground movement and structural impact presented?	No	Will be required if Category B audit determined to be necessary.
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	No	Screening assessment requires review to determine if follow up assessment is required.
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	No	Screening assessment requires review to determine if follow up assessment and / or mitigation is required.
Has the need for monitoring during construction been considered?	No	May be required if Category B audit determined to be necessary.
Have the residual (after mitigation) impacts been clearly identified?	No	Screening assessment requires review to determine if follow up assessment and / or mitigation is required.
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	No	Formation levels to be confirmed; construction methodologies to be confirmed; London Clay shrink / swell potential to be considered.
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	No	Screening assessment requires review to determine if follow up assessment and / or mitigation is required.
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	No	Screening assessment requires review to determine if follow up assessment and / or mitigation is required.

Item	Yes/No/NA	Comment
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	No	Once formation levels and construction methodology confirmed, assessment can be completed.
Are non-technical summaries provided?	Yes	However, needs revision e.g. 1.1.6

4.0 DISCUSSION

- 4.1. The BIA has been prepared by Martins Camisuli Architects. The qualifications of the author are not demonstrated to be in accordance with LBC guidance. Authors with the qualifications CGeol FGS and CEng MICE are required, with appropriate experience in hydrogeology, ground engineering and hydrology.
- 4.2. The proposed development comprises the extension of the existing basement into the rear garden. The BIA text and drawings provided do not adequately illustrate the final formation level and total depth of excavation required. Whilst section 2.3.3 suggests that finished floor level will be 900mm below ground level, section 3.14 indicates excavation of 1.5m deep will be required. Formation level (i.e. base of foundations and basement slab) should be clearly stated, indicated on dimensioned drawings and be consistent within the text.
- 4.3. The proposed construction methodology is unclear. Whilst the BIA text states that no underpinning will take place, the drawings suggest underpinning of Party Walls may be necessary. It is stated that battered excavation will be utilised, but the feasibility of achieving this along Party Walls has not been demonstrated. It is unclear whether battered excavations are proposed within the neighbouring property. Sufficient temporary works information, including dimensioned drawings and sequencing should be provided to clarify the construction methodology.
- 4.4. It is indicated in response to Q13 of the Land Stability Screening that proposed foundations will be 300mm to 500mm deeper than existing foundations. As 4.2 and 4.3, the formation level should be clarified. It should be noted that where excavation of greater than 500mm is required, or where underpinning of Party wall foundations is required, a full BIA (see 4.11) will need to be submitted and will be subject to a Category B Audit.
- 4.5. The BIA makes reference to site specific investigation data. This should be provided for review to confirm the hydrogeological assessment and statements on foundations. The London Clay is stated as underlying the site.
- 4.6. A Screening assessment has been presented. A number of the responses are either inadequately evidenced, not fully assessed or incorrectly answered:
- Hydrogeology Q4, Q5
 - Land Stability Q2, Q5, Q6, Q7, Q13
 - Hydrology Q2, Q3, Q5,
- 4.7. Clear information needs to be presented about the current and proposed impermeable site area. If there is an increase in impermeable site area, appropriate assessment should be provided

within a drainage strategy to demonstrate that there will be no impact to the hydrological environment.

- 4.8. Further to 4.7, the BIA incorrectly states that the proposed development is not within a Critical Drainage Area.
- 4.9. The proposed re-profiling of the garden appears to result in a battered slope. This should be considered within the Screening assessment and, if required further assessment provided to demonstrate stability.
- 4.10. The BIA states that the proposed foundations will be formed on the London Clay. Assessment of shrink / swell susceptibility in relation to potential impacts to neighbours / Party Wall should be presented.
- 4.11. It should be noted that, where Screening elicits a 'Yes' response, Scoping is required. By definition, within the Terms of Reference, this would classify the proposed development as Category B for audit purposes, requiring a full BIA to be presented including: site investigation; conceptual site model; interpretative geotechnical information including retaining wall design parameters; sufficient temporary and permanent structural information to demonstrate stability; stability assessment, including damage impacts to neighbouring structures; additional assessments as required to address issues raised during Screening / Scoping e.g. drainage.
- 4.12. An outline construction programme should be provided.

5.0 CONCLUSIONS

- 5.1. The qualifications of the author are not demonstrated to be in accordance with LBC guidance.
- 5.2. The BIA text and drawings provided do not adequately illustrate the final formation level and total depth of excavation required.
- 5.3. The proposed construction methodology is unclear.
- 5.4. The BIA makes reference to site specific investigation data. This should be provided for review. The London Clay is stated as underlying the site.
- 5.5. A Screening assessment has been presented. A number of the responses are either inadequately evidenced, not fully assessed or incorrect.
- 5.6. Clear information needs to be presented about the current and proposed impermeable site area.
- 5.7. The BIA incorrectly states that the proposed development is not within a Critical Drainage Area.
- 5.8. The proposed re-profiling of the garden appears to result in a battered slope. This should be considered within the Screening assessment.
- 5.9. Assessment of shrink / swell susceptibility in relation to potential impacts to neighbours / Party Wall should be presented.
- 5.10. It should be noted that, where Screening elicits a 'Yes' response, Scoping is required. By definition, within the Terms of Reference, this would classify the proposed development as Category B for audit purposes, requiring a full BIA to be presented.
- 5.11. An outline construction programme should be provided.
- 5.12. Queries and requests for information are summarised in Appendix 2. Until the additional information requested is provided, the BIA does not meet the criteria of CPG Basements.

Appendix 1: Residents' Consultation Comments

None

Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status/Response	Date closed out
1	BIA	BIA authors' qualifications and experience to be demonstrably in accordance with LBC guidance.	Open	
2	BIA	The final formation level and total depth of excavation required to be consistently presented in BIA text and drawings, which should be clearly dimensioned.	Open	
3	BIA	The proposed construction methodology is unclear. Required temporary works, including sequencing, should be clearly presented, including feasibility of undertaking battered excavations along Party Wall boundaries (if required).	Open	
4	BIA	The BIA makes reference to site specific investigation data. This should be provided for review.	Open	
5	Hydrology	Clear information needs to be presented about the current and proposed impermeable site area.	Open	
6	Hydrology	The BIA incorrectly states that the proposed development is not within a Critical Drainage Area. This should be addressed in association with item 5 and a drainage strategy presented with mitigation proposed, if required.	Open	
7	Stability	The proposed re-profiling of the garden appears to result in a battered slope. This should be considered within the Screening assessment.	Open	
8	Stability	The proposed foundations will be formed on the London Clay. Assessment of shrink / swell susceptibility in relation to potential impacts to neighbours / Party Wall should be presented.	Open	
9	BIA	Provide an outline construction programme.	Open	
10	BIA	If the proposed development falls within Category B, as defined in the Terms of Reference, a full BIA as 4.11 will be required, which will be subject to a Category B audit.	Note Only	Note Only

Appendix 3: Supplementary Supporting Documents

None

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