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9 Parkhill Road
London NW3 2YH

Basement Impact Assessment
Audit

For

London Borough of Camden

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Rev: D1

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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 submitted as part of the Planning Submission documentation for 9 Parkhill Road, London NW3 2YH (planning reference 2015/1429/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 review it against an agreed audit check list.

1.4. Information has been received to confirm that the development site does not involve a listed building nor is it in the neighbourhood of listed buildings.

1.5. The BIA has confirmed that the proposed basement will be located within the London Clay and that the surrounding slopes are stable.

1.6. It is accepted that groundwater will not be affected by the excavation and mitigation measures should effectively control potential variations to the groundwater regime.

1.7. The proposed basement will be excavated and constructed utilising established techniques.

1.8. It is accepted that because the basement is relatively shallow and or will be away from adjacent properties it is not necessary to undertake a Ground Movement Assessment nor instigate a movement monitoring regime on adjacent properties during construction.

1.9. A non-technical summary was not provided with the BIA, however, it is accepted that due to the limited nature of the basement excavation and the absence of significant impacts, such a summary is not required.

1.10. A construction method statement should be provided, detailing items such as the exclusion of water ingress from excavations.

2.0 INTRODUCTION

2.1. CampbellReith was instructed by London Borough of Camden (LBC) in June 2015 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 9 Parkhill Road, Camden Reference 2015/1429/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) 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 the "*Alterations to existing lower ground floor flat and maisonette to create 3 bedroom maisonette and 3 bedroom coach house*"

The Audit Instruction also confirmed that the basement proposals did not involve a listed building nor the site neighboured listed buildings.

2.6. CampbellReith accessed LBC's Planning Portal on 18 June 2015 and gained access to the following relevant documents for audit purposes:

- Site Location Plan

- Ground Investigation
- Basement Impact Assessment
- Drawings indicating existing and proposed building plans.

To date, no comments pertaining to land stability or the water environment have been uploaded on to the planning portal.

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	Author is experienced although apparently not qualified. One of the approvers of the BIA is a chartered engineer.
Is data required by Cl.233 of the GSD presented?	Yes	BIA.
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	Yes	BIA Section 5.3.
Are suitable plan/maps included?	Yes	BIA and supplementary drawings.
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	BIA Section 3.2.
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	BIA Section 3.1.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	BIA Section 3.3.
Is a conceptual model presented?	Yes	BIA Section 4.4.
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	
Hydrogeology Scoping Provided?	Yes	

Item	Yes/No/NA	Comment
Is scoping consistent with screening outcome?		
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	
Is factual ground investigation data provided?	Yes	Ground Investigation Report.
Is monitoring data presented?	Yes	Ground Investigation Report.
Is the ground investigation informed by a desk study?	Yes	BIA Section 2.7 and Ground Investigation Report.
Has a site walkover been undertaken?	Yes	BIA Section 3.2.
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	BIA Section 2.3 indicates that the adjoining property has a lower ground floor level.
Is a geotechnical interpretation presented?	Yes	BIA Appendix 3.
Does the geotechnical interpretation include information on retaining wall design?	Yes	Ground Investigation Report Section 5.5.
Are reports on other investigations required by screening and scoping presented?	Yes	Ground Investigation Report. No utilities information.
Are baseline conditions described, based on the GSD?	Yes	
Do the base line conditions consider adjacent or nearby basements?	N/A	
Is an Impact Assessment provided?	Yes	BIA Section 5.3.
Are estimates of ground movement and structural impact presented?	N/A	Minimal deepening of foundation and/or not near to neighbouring properties.
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	Yes	

Item	Yes/No/NA	Comment
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	No	A construction method statement should be provided detailing items such as the exclusion of groundwater from excavations.
Has the need for monitoring during construction been considered?	Yes	But not considered necessary.
Have the residual (after mitigation) impacts been clearly identified?	Yes	BIA Section 5.2.
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure been maintained?	Yes	
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	Estimated to be Burland Category O.
Are non-technical summaries provided?	No	

4.0 DISCUSSION

4.1. The BIA has been carried out by an established firm of consulting engineers, Ecos MacClean Ltd. The lead author has suitable experience and the approver has suitable qualifications. The hydrogeology has been correctly assessed and the input of a chartered hydrogeologist is not required in this instance.

4.2. The proposed development requires the excavation of 400-500mm of ground.

4.3. The proposed basement will generally be within an excavation supported by underpinning walls. This is an acceptable methodology using established techniques.

4.4. It is acknowledged that the basement is founded within the London Clay, which extends to within 0.5-0.7 metres of the existing site surface. We accept that the minor seepages detected in the London Clay do not constitute a continuous water flow and the groundwater will not be affected by the excavation. Similarly, limited groundwater flows are unlikely to significantly affect construction although consideration should be given to excluding groundwater from under pin excavations.

4.5. The BIA has shown that the surrounding slopes to the development are stable.

4.6. The BIA includes an assessment of whether the development is likely to be affected by surface water flooding, and the risk is accepted as being very low.

4.7. Although the BIA does not contain a Ground Movement Assessment, it is accepted that it is not necessary to supply one since the basement is away from the neighbouring buildings and infrastructure. For similar reasons, it is not considered necessary to instigate a movement monitoring regime on adjacent properties during construction.

5.0 CONCLUSIONS

5.1. Although there has been no input from a chartered geologist the hydrogeological input has been correctly assessed.

5.2. The proposed development requires the excavation of 400-500mm of ground. The proposed basement will generally be within an excavation supported by underpinning walls. This is an acceptable methodology using established techniques.

5.3. It is acknowledged that the basement is founded within the London Clay, which extends to within 0.5-0.7 metres of the existing site surface. The BIA has shown that the surrounding slopes to the development are stable.

5.4. The BIA includes an assessment of whether the development is likely to be affected by surface water flooding, and the risk is accepted as being very low.

5.5. Although the BIA does not contain a Ground Movement Assessment, it is accepted that it is not necessary to supply one due to the limited extent of excavation and because much of the basement is away from the neighbouring buildings and infrastructure. For similar reasons, it is not considered necessary to instigate a movement monitoring regime on adjacent properties during construction.

5.6. Consideration must be given to excluding limited volumes of perched water from underpinning excavations.

5.7. A non-technical summary was not provided with the BIA, however, it is accepted that due to the limited nature of the basement excavation and the absence of significant impacts, such a summary is not required.

5.8. A construction method statement should be provided, detailing items such as the exclusion of water ingress from excavations.

Appendix 1: Residents' Consultation Comments

None

Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	Groundwater	There is the potential for groundwater ingress into underpin excavations.	A construction method statement including proposals for excluding groundwater should be provided.	

Appendix 3: Supplementary Supporting Documents

None

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