

**20 Crediton Hill
London NW6 1HP**

**Basement Impact Assessment
Audit**

For
London Borough of Camden

Project No.
14006-21

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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 screening exercise submitted as part of the Planning Submission documentation for 20 Crediton Hill, London NW6 1HP (planning reference 2023/2258/P). The BIA screening exercise was submitted to determine whether 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) and supplementary information has been produced by those holding suitable qualifications.
- 1.5 The proposals include the demolition of the existing building and erection of a new building with a one storey basement covering the entire footprint. The structural proposal gives different options for the construction of the basement.
- 1.6 The enlarged basement will increase further the impermeable site areas and a Drainage Strategy and Flood Risk Assessment has been presented. It is noted final drainage strategy and design will need to be approved by local flood authority and public sewer owner.
- 1.7 It has been demonstrated that the proposal will limit damages occurring to No. 20 and No. 22 Crediton Hill within acceptable limits.
- 1.8 Considering the information submitted and pending on the detailed drainage strategy and design to be approved, it can be confirmed that the BIA complies with the requirements of Camden Planning Guidance: Basements.

2.0 INTRODUCTION

2.1 CampbellReith was instructed by London Borough of Camden (LBC) on 10 July 2023 to carry out a Category A audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 20 Crediton Hill, London, NW6 1HP (planning reference 2023/2258/P).

2.2 Planning was granted by LBC on 2 October 2018 for a basement at the site (Planning Reference 2018/1012/P). A BIA was submitted (Ref MES/1611/PMA002, Rev 04, February 2018) and accepted as compliant with the relevant policies (CPG Basements; Local Plan Policy A5) by CampbellReith (Ref 12727-81, Rev F1, August 2018). Both the previous BIA and CampbellReith BIA audit should be read in conjunction with this report.

2.3 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.

2.4 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.
- Fortune Green and Hampstead Neighbourhood Plan.

2.5 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.

- 2.6 LBC's Audit Instruction described the planning proposal as "*Demolition of existing building and erection of part single part two storey plus basement dwellinghouse and associated works.*"
- 2.7 The Audit Instruction confirmed that 20 Crediton Hill neither is, nor is a neighbour to, listed buildings.
- 2.8 CampbellReith accessed LBC's Planning Portal on 01 August 2023 and gained access to the following relevant documents for audit purposes:
- Existing Plans Elevations & Section drawings by Scenario Architecture, revision and date unknown
 - Proposed Plans Elevations & Sections drawings by Scenario Architecture, revision and date unknown
 - Basement Impact Screening by Milvum Engineering Services (including Strcutral report by SD Structures), ref: MES/2305/SA001, Rev 01, dated 11 May 2023.
 - Drainage Statement & Flood Risk Assessment by SD Structures, ref.: SDS1585, Rev P01, dated April 2023.
 - Arboricultural Impact Assessment report by Landmark Trees, ref.:SCA/20CDH/AIA/01a, Rev. 01a, dated May 2023

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECKLIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	
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	Section 4 of the BIA
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 4 of the BIA
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 4 of the BIA
Is a conceptual model presented?	Yes	
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 5 of the BIA
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 5 of the BIA
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 5 of the BIA

Item	Yes/No/NA	Comment
Is factual ground investigation data provided?	Yes	
Is monitoring data presented?	Yes	
Is the ground investigation informed by a desk study?	Yes	Section 3 of the BIA
Has a site walkover been undertaken?	Yes	Section 2.2 of the BIA
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	Pag 4 and 5 of the BIA addendum
Is a geotechnical interpretation presented?	Yes	
Does the geotechnical interpretation include information on retaining wall design?	Yes	
Are reports on other investigations required by screening and scoping presented?	Yes	FRA, GMA and arboricultural report
Are the baseline conditions described, based on the GSD?	Yes	
Do the base line conditions consider adjacent or nearby basements?	Yes	
Is an Impact Assessment provided?	Yes	Assessment of land stability presented
Are estimates of ground movement and structural impact presented?	Yes	
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	Against increase of surface water flooding and damages to neighbouring properties
Has the need for monitoring during construction been considered?	Yes	
Have the residual (after mitigation) impacts been clearly identified?	Yes	Considered negligible

Item	Yes/No/NA	Comment
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be 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	As above
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	Yes	
Are non-technical summaries provided?	Yes	

4.0 DISCUSSION

- 4.1 The Basement Impact Assessment (BIA) has been carried out by Milvum, and the individuals concerned in its production have suitable qualifications. SD Structures have produced a structural report outlining the design assumptions and construction approach for the basement.
- 4.2 The proposals include the demolition of the existing building and the construction of part single part two storey plus basement dwellinghouse and associated works. In comparison to the previous application the current proposal includes an enlarged basement footprint extending to the west.
- 4.3 The structural report indicates basement retaining walls for the south, east and part of the west side will be constructed in open excavation by battering the ground back at a safe angle. Along the north side (adjacent to the No. 22 rear garden) the report considers both the use of a contiguous piled wall and the construction of the retaining wall using an underpinning sequence. Adjacent to the closer garage (No. 4), which is understood to have a basement founded at c. 3.00m bgl, the report states that underpinning may be required and recommends further investigation to exactly determine basement depth.
- 4.4 Items of the original BIA that required a revision in light of the updated proposals are discussed below. Reference to the original BIA and BIA audit should be made for every other aspect of the impact assessment.
- 4.5 The enlarged basement will increase further the impermeable site areas and as such the impact assessment on hydrology and hydrogeology has been revised. A Drainage Strategy and Flood Risk Assessment has been presented and indicates flood risk from all the sources to be low. The report recommends the adoption of green roofs as a method to reduce in discharge rates when compared to the existing situation. It is noted final drainage strategy and design will need to be approved by local flood authority and public sewer owner.
- 4.6 The change in the proposed basement area brings the basement closer to the nearest habitable structures (20 Crediton Hill and 22 Crediton Hill) and neighbouring properties (garages to the west), as such a Ground Movement Assessment (GMA) has been presented to investigate damages occurring to those structure due to ground movements caused by the basement construction.
- 4.7 The GMA states garages 1,2 and 3 have not been included in the analysis as the basement at garage 4 will 'effectively shields' the other garages and will help in dissipating ground movements, such as the garages beyond that should not experience any movement.
- 4.8 The GMA considers three different options as suggested by the structural report for the north side of the basement, i.e. installation of contiguous piled wall (both propped and unpropped in the temporary case) and underpinning. The GMA results indicate a maximum category of damage of 1 for No 20 and No 22 Crediton Hill.

5.0 CONCLUSIONS

- 5.1** The Basement Impact Assessment (BIA) and supplementary report been carried out by a well-known firm of engineering consultants, and the individuals concerned in its production have suitable qualifications.
- 5.2** The proposed development involves the creation of a basement to occupy the entirety of the footprint of the proposed building.
- 5.3** The enlarged basement will increase further the impermeable site areas and a Drainage Strategy and Flood Risk Assessment has been presented. It is noted final drainage strategy and design will need to be approved by local flood authority and public sewer owner.
- 5.4** The change in the proposed basement area brings the basement closer to neighbouring properties and a Ground Movement Assessment (GMA) has been presented. Damages predicted in the GMA are within acceptable limits.
- 5.5** Considering the information presented and pending on the approval of the drainage strategy and design it can be confirmed that the BIA complies with the requirements of Camden Planning Guidance: Basements.



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Appendix 1

Consultation Responses

None



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Appendix 2

Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	Hydrology	Final drainage strategy and design to be approved by local flood authority and public sewer owner	Note only	N/A



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Appendix 3

Supplementary Supporting Documents

None

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