

**Basement Impact  
Assessment Audit**

Highgate Studios, 53-79  
Highgate Road,  
London NW5 1TS

For  
London Borough of Camden

Project No.  
14006-82

Date  
August 2024

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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 Highgate Studios (planning reference 2023/1804/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 qualifications of the individuals involved in the BIA are not fully in accordance with the LBC guidelines; evidence of input to the hydrogeological assessment from an individual holding the CGeol qualification is absent.
- 1.5 The site comprises the northwestern corner of the Highgate Studios complex, located off Sanderson Close, NW51TS. The proposed development the construction of a five storeyed building with the first storey ground floor/basement built into the slope such that it is full depth towards the east side and at ground level towards the southwest side of the site.
- 1.6 The ground conditions on site comprise of Made Ground overlying Head and London Clay. Some groundwater flows are expected to be encountered during construction, but any flows encountered would be relatively minor and easily manageable.
- 1.7 Screening and scoping assessments are presented, supported by desk study information.
- 1.8 The site has low risk of flooding from all sources. It is accepted that the proposals will not impact the hydrology of the area.
- 1.9 Despite the absence of input from an individual holding the CGeol qualification, the geology on site is confirmed to be London Clay, an unproductive aquifer, and the impact to hydrogeology is accepted to be negligible.
- 1.10 The BIA indicates potential damage to neighbouring buildings, but the extent of damage is expected to be negligible. Nearby buildings have existing basements and piled foundations, which limits the impact from any ground movements. It is accepted that the proposals will not have a significant impact to land stability.
- 1.11 The development is expected to cause negligible damage to the Sanderson Close infrastructure, and suitable mitigation measures are proposed.
- 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 25 June 2024 to carry out a Category A audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for Highgate Studios, 53 – 79 Highgate Road, London NW5 1TL (planning reference 2023/1804/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.
- Neighbourhood Plan for Dartmouth Park

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 "Erection of a 7 and 4 storey building at Plots A and F (respectively) following demolition of existing buildings and structures; erection of roof extensions at Plots B, E, I and J; external refurbishment of the existing buildings at Plots C and D; erection of replacement entrance pavilion; plus cycle parking and plant provision; hard and soft landscaping to provide an additional c.16,000sqm (GIA) of Class E (g) floorspace and ancillary uses."

2.6 The Audit Instruction confirmed Highgate studios neither is, nor is a neighbour to, listed buildings.

2.7 CampbellReith accessed LBC's Planning Portal on 28 June 2024 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment (BIA) by Soiltechnics Ltd, ref. STU5700-R02 Rev A, dated February 2024.

- Flood Risk Assessment & SuDS Strategy Report by Heyne Tillett Steel, ref. 2787 rev 02, dated July 2023.
- Location Plans by Piercy&Company dated 25 April 2023.
- Existing Architectural Drawings by Piercy&Company dated 25 April 2023.
- Demolition Plans by Piercy&Company dated 25 April 2023.
- Proposed Architectural Drawings by Piercy&Company, dated 25 April 2023.
- Design & Access Statement parts 1-10, by Piercy&Company, ref. 13683, dated 25 April 2023.

### 3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	Appendix B of the BIA. Input from an individual holding a CGeol qualification has not been demonstrated.
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 3.3 of the BIA
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 3.2 of the BIA
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 3.4 of the BIA
Is a conceptual model presented?	Yes	Description of ground conditions provided in section 2 of BIA
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 4 of the BIA

Item	Yes/No/NA	Comment
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Clarification on question 2 provided by email, included in Appendix 3
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	N/A	No items were carried forward to scoping
Is factual ground investigation data provided?	Yes	Data from desk study is provided, section 2 of BIA
Is monitoring data presented?	Yes	Section 4.2 of BIA
Is the ground investigation informed by a desk study?	Yes	Section 2 of BIA
Has a site walkover been undertaken?	Yes	Not explicitly mentioned in the BIA
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	Section 4.3 of BIA
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	Utility service plans, flood risk assessment, sustainability statement
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	



Item	Yes/No/NA	Comment
Are estimates of ground movement and structural impact presented?	N/A	No impacts anticipated.
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	
Has the need for monitoring during construction been considered?	Yes	
Have the residual (after mitigation) impacts been clearly identified?	Yes	No residual impacts
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	Yes	Section 4.3 and 4.4 of the BIA
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	
Are non-technical summaries provided?	Yes	Non-technical summary is provided in the BIA

## 4.0 DISCUSSION

- 4.1 The Basement Impact Assessment (BIA) has been carried out by Soiltechnics Ltd. The author concerned with its production is a chartered civil engineer Who holds some of the qualifications required by CPG Basements. No evidence of input from an individual holding the CGeol qualification has been demonstrated.
- 4.2 The existing property forms a part of a wider complex of buildings and consists of a part two-storeyed building of masonry construction with a ground floor/basement level. The site slopes in such a way that the ground levels on the western side are approximately 4.0m lower than the eastern side, and the basement of the existing building is excavated into the slope. The roof level of the first storey of the existing building is currently used as a carpark, with the second storey occupying a small section on the western side of the plot.
- 4.3 The proposed redevelopment has five storeys, including a single level basement which extends into the slope, sitting 4m below ground level from the deep end (northeast side). The elevation of the proposed basement is understood to be 34.87m AOD from the BIA. The proposed building (plot F) has three adjacent blocks of buildings, plot G to the north, plot J to the east and plot E to the south-east.
- 4.4 Screening and scoping assessments are presented and informed by desk study information.
- 4.5 Justification was not provided for screening Question 14 of the land stability screening assessment, and Question 5 of the surface flow and flooding screening assessment. Subsequent correspondence (presented in Appendix 3 of this audit) has provided the necessary justification for the screening response.
- 4.6 The BIA identified groundwater through continuous groundwater monitoring on site up to 34.5m AOD. The proposed basement sits at 34.8m AOD and involves foundations that extend below the water table. However, the BIA suggests groundwater flow in London Clay is unlikely and it is interpreted that these water levels are a result of accumulation of seepage flows after inclement weather. Any groundwater flow encountered during construction is predicted to be relatively minor, and manageable through conventional pumping techniques.
- 4.7 The BIA identifies the potential for seasonal shrink swell behaviour from the London Clay stratum, as the site lies atop the London Clay formation. The BIA states that the risk due to shrink swell from clay is negligible as the basement foundations extend to depths below the level of susceptibility. There are no existing trees on site which could affect the volume change behaviour of London Clay.
- 4.8 The BIA indicates potential damage to adjoining buildings, namely plot G, plot E and plot J. The adjoining building in plot G has a basement which sits approximately 1.5m above the proposed basement level. The BIA states that any part of the foundation extending into the proposed basement would be grubbed out and deepened, using underpinning techniques. An outline construction methodology, structural data and sequence of construction of the proposed construction in plot F is required.

- 4.9 The BIA states that the building in plot E has piled foundations which minimizes any potential movements due to the proposed construction in plot F.
- 4.10 The BIA has identified potential damage to boundary wall of plot J due to the proposed construction. Underpinning is suggested along this section of the basement to limit any ground movements. The client owns all plots at Highgate Studios, and they acknowledge and accept any risk of movement and potential remedial works to the boundary wall.
- 4.11 The BIA identifies potential damage to the road infrastructure neighbouring the site. The basement would be at road level at the southern end of the plot and would be approximately 4m below road level at the northern end. The BIA suggests using temporary sheet piling techniques to counter any ground movements induced due to construction. It is accepted that the basement will not cause any significant impacts to the land stability of the area.
- 4.12 The hydrogeological impact assessment indicates that the site is underlain by relatively impermeable London Clay, designated as an unproductive strata. The BIA identified the site to be approximately 90m from a tributary of the historic river Fleet. However, no impacts are anticipated due to the distance of the historic water course from the site. Despite the absence of input by an individual holding a CGeol qualification, the outcome of the screening assessment is considered appropriate, and it is accepted that the basement will not impact the hydrogeology of the area.
- 4.13 The BIA states that the site lies outside the catchment of the Hampstead Hill Ponds and has a low risk from all sources of flooding. The proposed redevelopment will not change the drainage arrangements on site. The flood risk assessment suggests usage of suitable sustainable urban drainage systems to ensure surface run-off will be managed properly. It is accepted that there will be no impacts on the hydrological environment.

## 5.0 CONCLUSIONS

- 5.1 The author involved in the BIA holds qualification that meet some of the requirements set by CPG basements. Input by an individual holding a CGeol qualification has not been demonstrated.
- 5.2 The proposed development involves the demolition of an existing building and the construction of a five storeyed building in plot F. The proposed development has a basement level which would be built into the slope such that it is full depth towards the east side and at ground level towards the west side of plot F.
- 5.3 The site lies atop the London Clay strata, and it is likely that some perched groundwater would be encountered during construction. Any flows encountered are predicted to be relatively minor and easily manageable.
- 5.4 The screening and scoping assessments are provided, supported by desk study information.
- 5.5 The screening assessment identified the site to be near a historic tributary of the river Fleet, but no impacts are anticipated.
- 5.6 Despite the absence of input from an individual holding the CGeol qualification, the geology on site is confirmed to be London Clay, an unproductive aquifer, and the impact to hydrogeology is accepted to be negligible.
- 5.7 The BIA indicates potential damage to neighbouring buildings, but this is expected to be low. Underpinning techniques are to be adopted to minimize any damage to boundary wall of plot J along the western boundary of the site. Damage to buildings G and E are expected to be low because of an existing basement and piled foundations respectively. It is accepted that the development will not impact the land stability of the area.
- 5.8 The proposed development could cause damage to the nearby Sanderson Close Road infrastructure, but temporary sheet piles are suggested to minimize any damage caused.
- 5.9 It is accepted that there exists no impact to the hydrological environment, and the site is at low risk from all sources of flooding. The drainage arrangements on site are expected to remain unchanged, and sustainable urban drainage systems (SUDS) are suggested to manage surface runoffs properly.
- 5.10 It can be confirmed that the BIA complies with the requirements of Camden Planning Guidance: Basements.

## Appendix 1

### **Consultation Responses**

None

Basement Impact Assessment Audit  
Highgate Studios, 53-79 Highgate Road,  
London NW5 1TS

CampbellReith  
consulting engineers

## Appendix 2

### **Audit Query Tracker**

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	BIA	The qualifications of the author are not compliant with the CPG basements guidelines.	Note only	

Basement Impact Assessment Audit  
Highgate Studios, 53-79 Highgate Road,  
London NW5 1TS

CampbellReith  
consulting engineers

## Appendix 3

### **Supplementary Supporting Documents**

Email correspondence



**Subject:** RE: Highgate Studios (2023/1804/P)- Outstanding queries  
**Sent:** 04/07/2024, 09:25:07  
**From:** George Fairlie<george.fairlie@dp9.co.uk>  
**To:** Kristina Smith

**[EXTERNAL EMAIL]** Beware – This email originated outside Camden Council and may be malicious Please take extra care with any links, attachments, requests to take action or for you to verify your password etc.

Hi Kristina,

Thanks and good news there are only a couple of minor points. See below for our responses from Soiltechnics below:

1. Yes. I am a chartered Civil Engineer with specialism in ground engineering. A CV was appended to the BIA. In view of the hydrogeology (straight onto London Clay) a review by a Chartered Geologist is not considered required.
2. The historical watercourse is circa 90m east of the proposed basement so no impact anticipated.

Thanks,  
George  
**George Fairlie**  
Senior Planner  
**direct:** 020 7004 1737  
**mobile:** 07711 556893  
**e-mail:** [george.fairlie@dp9.co.uk](mailto:george.fairlie@dp9.co.uk)  
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**From:** Kristina Smith <[Kristina.Smith@camden.gov.uk](mailto:Kristina.Smith@camden.gov.uk)>  
**Sent:** Wednesday, July 3, 2024 3:13 PM  
**To:** George Fairlie <[george.fairlie@dp9.co.uk](mailto:george.fairlie@dp9.co.uk)>  
**Subject:** FW: Highgate Studios (2023/1804/P)- Outstanding queries

Hi George,

Please see email from Campbell Reith below. Sounds like there's just a couple of minor points to tie up.

Best,  
Kristina

**From:** Bibin Balachandran <[BibinBalachandran@campbellreith.com](mailto:BibinBalachandran@campbellreith.com)>  
**Sent:** Wednesday, July 3, 2024 2:18 PM  
**To:** Kristina Smith <[Kristina.Smith@camden.gov.uk](mailto:Kristina.Smith@camden.gov.uk)>  
**Cc:** CamdenAudit <[CamdenAudit@campbellreith.com](mailto:CamdenAudit@campbellreith.com)>  
**Subject:** Highgate Studios (2023/1804/P)- Outstanding queries

You don't often get email from [bibinbalachandran@campbellreith.com](mailto:bibinbalachandran@campbellreith.com). [Learn why this is important](#)

**[EXTERNAL EMAIL]** Beware – This email originated outside Camden Council and may be malicious Please take extra care with any links, attachments, requests to take action or for you to verify your password etc.

Hi Kristina,

I'm writing to you to request a few clarifications regarding the BIA audit of Highgate Studios, London NW5

1TS (Planning reference 2023/1804/P).

We have no other comments, so if this information can be provided, we can close out the audit without raising any queries.

1. Can the applicant confirm that the BIA was produced by individuals with appropriate qualifications as per LBC guidelines?
2. The presence of a historic water course was identified in screening, but this was not taken forward to scoping. Can it be confirmed that no potential impacts related to the water course would be present?

If they can be confirmed by an email, we can include that as an appendix to the audit.

Kind regards,  
Bibin

**Bibin Balachandran**  
Graduate Geotechnical Engineer

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