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Camden Town Hall, Judd Street, WC1H 9JE

Basement Impact Assessment Audit

For

London Borough of Camden

Project Number: 12985-60
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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 Camden Town Hall, Judd Street, London WC1H 9JE (planning reference 2019/2238/P & 2019/2257/L). 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.

1.4. The BIA has been prepared by engineering consultants AKTII. The author is a chartered structural engineer. Evidence of experience in engineering geology, and/or evidence of the input of an engineering geologist, is required.

1.5. The BIA indicates that the site is underlain by London Clay, beneath a mantle of Made Ground, but no site investigation information is presented. The factual ground investigation data and geotechnical interpretation should be provided.

1.6. It is proposed to construct a number of lift pits and attenuation tanks. The BIA describes two methods of construction. Further information is required to confirm the feasibility of the proposals and the potential impact on the stability of the listed host building to ensure that no harm is caused.

1.7. No proposals are provided for a movement monitoring strategy during excavation and construction.

1.8. It is accepted that there are no slope stability concerns regarding the proposed development.

1.9. It is accepted that the development will not impact on the wider hydrogeology of the area and will not alter surface water/flooding impacts.

1.10. In light of the modest nature of the basement works and their distance from surrounding structures and infrastructure, it is considered that the queries raised in Section 4 of this audit report may be closed out in a Basement Construction Plan (BCP) and that the BCP and submitted BIA documents will satisfy the requirements of CPG: Basements.

2.0 INTRODUCTION

2.1. CampbellReith was instructed by the London Borough of Camden (LBC) on 26 June 2019 to carry out an audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for Camden Town Hall, Judd Street, London WC1H 9JE, Planning reference 2019/2238/P & 2019/2257/L. The Audit Instruction confirmed that the Town Hall is a Grade II listed building.

2.2. Owners of Listed Buildings are legally liable for not harming their buildings. It is no-fault legislation, meaning that ignorance of the listing is not a defence. Basements to listed buildings are often more sensitive, from a structural perspective, than non-listed buildings and many listed buildings are old and often of more delicate construction/condition. Consequently, although the proposed basement alterations are relatively small, the listed status of the building places it in Category B with respect to the Terms of Reference for BIA audits.

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

- 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.

2.5. 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 description of the planning application includes the following basement related aspects: "*The part change of use of the Camden Town Hall from Sui Generis (Town Hall) …to Events use… Retention of Sui Generis (Town Hall) uses at ground, first floor and part basement….Internal works include … changes to layout on basement… targeted basement excavation for lift pits and attenuation tanks….*"

2.7. CampbellReith accessed LBC's Planning Portal on 8 July 2019 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment Report (BIA), prepared by AKTII Ltd on behalf of Lendlease, reference 4254, dated 17/04/2019 and including
  - Appendix 1 – Structural drawings
  - Appendix 2 – Utilities correspondence
  - Appendix 3 – Site Investigation & Fabric Brief
  - Appendix 4 – Drainage strategy

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	No	Evidence of experience in engineering geology, and/or evidence of the input of an engineering geologist, is required.
Is data required by Cl.233 of the GSD presented?	Yes	In BIA document and supporting appendices
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?	No	It is noted in the BIA text that the culverted River Fleet runs within 25m of the site, but this is not identified in the screening assessment.
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	As above, but it is accepted there are no local or wider impacts to subterranean flows.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	The BIA does not identify that the surrounding streets have a medium risk of surface water flooding. However, it is accepted there are no impacts to surface water flows/flooding.
Is a conceptual model presented?	Yes	Ground and groundwater conditions are described but are based on desk study information.
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	No	Not provided.

Item	Yes/No/NA	Comment
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	No	Not provided, but it is accepted there are no significant impacts.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	No	Not provided, but it is accepted there are no significant impacts.
Is factual ground investigation data provided?	No	
Is monitoring data presented?	No	
Is the ground investigation informed by a desk study?	NA	
Has a site walkover been undertaken?	No	Not described.
Is the presence/absence of adjacent or nearby basements confirmed?	No	But it is accepted that all surrounding structures are outside the zone of influence of the proposed basement alterations.
Is a geotechnical interpretation presented?	No	
Does the geotechnical interpretation include information on retaining wall design?	NA	
Are reports on other investigations required by screening and scoping presented?	No	Ground movement and building damage assessment for host building not presented.
Are the baseline conditions described, based on the GSD?	No	
Do the base line conditions consider adjacent or nearby basements?	NA	
Is an Impact Assessment provided?	Yes	Qualitative stability assessment provided for surrounding structures (no impact).

Item	Yes/No/NA	Comment
Are estimates of ground movement and structural impact presented?	Yes	For surrounding structures but not for host property.
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	Yes	However, potential impacts to host property not identified or assessed.
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	No	Potential impacts to host property not identified or assessed.
Has the need for monitoring during construction been considered?	No	
Have the residual (after mitigation) impacts been clearly identified?	No	Potential impacts to host property not identified or assessed.
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	No	Potential impacts to host property not identified or assessed.
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?	No	Potential impacts to host building not identified or assessed.
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	Yes	However, potential impacts to host property not identified or assessed.
Are non-technical summaries provided?	No	However, the key points of the BIA are clearly stated.

4.0 DISCUSSION

4.1. The Basement Impact Assessment (BIA) has been carried out by engineering consultants, AKTII. The author is a chartered structural engineer, however, no evidence of expertise in engineering geology is provided.

4.2. The surface water and subterranean water assessments have not been undertaken by individuals with the qualifications required by CPG: Basements; however, it is accepted that the conclusions are valid.

4.3. The LBC Instruction to proceed with the audit identified that the basement proposal involved a listed building. As noted in Section 2, owners are legally liable for not harming such buildings.

4.4. The proposed basement works consist of six lift pit excavations and two attenuation tanks with a maximum depth of c 2.30m. In the majority of cases, the excavations are located between existing columns. The BIA and structural drawings indicate that those excavations will be formed using trench boxes and the lift pit/tanks formed inside in concrete. At one location, the walls of the lift pit sit beneath existing columns and underpinning is proposed.

4.5. The BIA has identified that the site is underlain by Made Ground over London Clay. A scope of works for a site investigation has been provided and it is noted that foundation inspection pits will be required. It is stated that the results of the investigation can be made available and these should be provided to demonstrate (i) a suitable bearing stratum for new foundations, (ii) interpretative geotechnical design parameters, (iii) the feasibility of underpinning in the ground conditions encountered and (iv) the presence/absence of perched water. The site investigation information is also required to allow the impact of excavating close the existing columns to be assessed. Due to the limited extent of the basement works, it is considered that this information may be submitted in a Basement Construction Plan.

4.6. Whilst it is accepted that the basement works will not impact surrounding structures and infrastructure, due to its listed status, an assessment of potential movement and damage to the host building is required. These impacts can be confirmed in the Basement Construction Plan.

4.7. With respect to surface water and flooding, the BIA has not identified a medium risk of flooding in the surrounding streets. However, it is accepted that the scale and location of the proposed excavations will not impact surface water.

4.8. The BIA screening sections 4 and 4.2 have not identified the presence of the former River Fleet within 25m of the site. Although this could affect stability, which can be confirmed by site investigation, it is accepted that due to the geology and the scale of the basement alterations, there are no impacts to subterranean flows from the proposals.

4.9. No proposals are provided for a movement monitoring strategy during excavation and construction. An outline proposal should be presented in the Basement Construction Plan, based on the damage assessment of the host building.

4.10. It is accepted that there are no slope stability concerns regarding the proposed development.

5.0 CONCLUSIONS

5.1. The author is a chartered structural engineer. Evidence of experience in engineering geology, and/or evidence of the input of an engineering geologist, is required.

5.2. It is accepted that the proposals will not impact surrounding structures. However, impact assessment of the host building is required.

5.3. The factual ground investigation data and geotechnical interpretation should be provided.

5.4. The BIA describes two methods of construction – underpinning and the formation of concrete boxes inside trench boxes. Further information is required to confirm the feasibility of the proposals and the potential impact on the stability of the host building, to ensure that no harm is caused to the listed Town Hall building.

5.5. An outline structural movement monitoring strategy should be presented, based on the damage assessment of the host building.

5.6. It is accepted that there are no slope stability concerns regarding the proposed development.

5.7. It is accepted that there will be no impact to the wider hydrological and hydrogeological environments.

5.8. Due to the limited nature of the basement excavations, it is considered that the queries outlined above may be addressed in a Basement Construction Plan.

Appendix 1: Residents' Consultation Comments

None

Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	BIA	Confirmation required of author's expertise in engineering geology and/or evidence of input by engineering geologist.	Open	NA – to be confirmed in BCP
2	Stability	Site investigation factual data and geotechnical interpretation to be provided.	Open	NA – to be provided in BCP
3	Stability	Assessment of impacts to host building from proposed basement works to be provided.	Open	NA – to be provided in BCP
4	Stability	Consideration of need for monitoring during excavation and construction required.	Open	NA – to be provided in BCP

Appendix 3: Supplementary Supporting Documents

None

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