

### Basement Impact Assessment AUDIT: Instruction

**Section A (Site Summary)** – to be completed by Case Officer

<b>Camden Case Reference:</b>	2023/5103/P	<b>Site Address:</b>	Chancery Station House 31-33 High Holborn London WC1V 6AX
<b>Case officer contact details:</b>	Sam FitzPatrick <a href="mailto:Sam.fitzpatrick@camden.gov.uk">Sam.fitzpatrick@camden.gov.uk</a>	<b>Date of audit request:</b>	03/04/2024
<b>Statutory consultation end date:</b> 18/02/2024			
<b>Reason for Audit:</b>	Basement development		
<b>Proposal description:</b> Change of use of existing deep level tunnels (Sui Generis) to visitor and cultural attraction (F1), including bar (Sui Generis); demolition and reconstruction of existing building at 38-39 Furnival Street; redevelopment of 40-41 Furnival Street, for the principal visitor attraction pedestrian entrance at ground floor, with retail at first and second floor levels and ancillary offices at third and fourth levels and excavation of additional basement levels; creation of new, pedestrian entrance at 31-33 High Holborn, to provide secondary visitor attraction entrance (including principle bar entrance); provision of ancillary cycle parking, substation, servicing and plant, and other associated works.			
<b>Relevant planning background</b>  N/A			
Do the basement proposals involve a listed building or does the site neighbour any listed buildings?		Not directly - nearby listed building (no.22-23 High Holborn).	
Is the site in an area of relevant constraints? (check site constraints in M3/Magic GIS)	Slope stability	Yes	
	Surface Water flow and flooding	No	
	Subterranean (groundwater) flow	Yes	
Does the application require determination by Development Control Committee in accordance fall the Terms of Reference <sup>1</sup>		Yes	
Does the scope of the submitted BIA extend beyond the screening stage?		Yes	
Which ward is the application situated?		Holborn and Covent Garden	
Is there an adopted neighbourhood plan? If so, which is it?		No	

<sup>1</sup> Recommendations for approval of certain types of application require determination by Planning Committee (PC). From time to time applications which would normally be determined by officers under delegated authority are referred by the Director of Regeneration and PC for decision. Where the Auditor makes representations at PC on behalf of an application the fees for attendance will be passed to the applicant.

**Section B: BIA components for Audit (to be completed by Applicant)**

Items provided for Basement Impact Assessment (BIA) <sup>1</sup>			
Item provided	Yes/No/NA <sup>2</sup>	Name of BIA document/appendix in which information is contained.	
1	Description of proposed development.	Yes	<p>Refer to DAS for description of the whole London Tunnels development.</p> <p>The "basement" in LB Camden is a downward extension to an existing 22'9" (6.93m ID) diameter shaft underneath 31-33 High Holborn.</p> <p>From the extension, short lateral headings connect to existing tunnels.</p> <p>Note that only internal alterations are proposed to the existing (near-ground-level) basement of 31-33 High Holborn. The external perimeter and depth are unchanged.</p> <p>The base of the existing shaft is approximately 27m below ground level. The downward extension is approximately 6m with an 800mm base and replaces two existing 7ft (2.13m) diameter shafts. The work is entirely within the London Clay stratum / top of the Lambeth Group.</p> <p>Further details in DAS section 4.3.</p>
2	Plan showing boundary of development including any land required temporarily during construction.	Yes	Refer to DAS section 4.3
3	Plans, maps and or photographs to show location of basement relative to surrounding structures.	Yes	Refer to DAS section 4.3
4	Plans, maps and or photographs to show topography of surrounding area with any nearby watercourses/waterbodies including consideration of the relevant maps in the Strategic FRA by URS (2014)	No	<p>The development comprises a refurbishment of the existing building (note, that only internal alterations are proposed to the existing building and basement of 31-33 High Holborn and the external building perimeter and basement depth and extent are unchanged). Therefore, site areas occupied by structure and/or hardstanding areas will be unchanged.</p> <p>Because there is no work at or near ground level, no watercourses are affected, and flood risks are unchanged.</p> <p>The 'Surface Water Flooding Plan' confirms the site is located outside the extent of areas impacted by Surface Water Flooding and the risk at the site from surface water flooding is 'negligible'. The site is therefore</p>

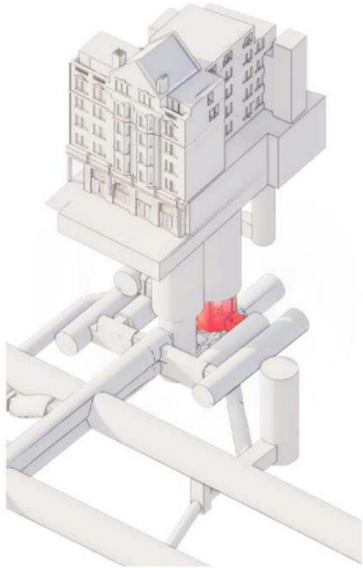
Items provided for Basement Impact Assessment (BIA) <sup>1</sup>			
Item provided		Yes/No/ NA <sup>2</sup>	Name of BIA document/appendix in which information is contained.
			considered to be at very low risk of flooding due to such events.
5	Plans and sections to show foundation details of adjacent structures.	No	<p>Adjacent building on west side has a single level basement. Details of basement to building on east side are unknown. However, because of the depth of the proposed works, they are not expected to impact the adjacent structures.</p> <p>The existing basement will not be changed in plan or depth as part of the redevelopment works. Therefore, the foundations of the existing basement, existing building and adjacent properties will be unchanged.</p> <p>The shaft extension works commence at approximately 27m below ground level and are entirely within the London Clay stratum / top of the Lambeth Group. Note, the shaft is not a foundation to the existing building. A detailed ground movement assessment has been completed, which confirms the movements due to the shaft extension works will be minimal, with a magnitude of movement of less than 2mm predicted on adjacent properties. For more details please refer to WSP report TLT-WSP-XX-XX-RP-CV-00005, dated May 2024 – 31-33 High Holborn (Fulwood Place) Basement Impact Assessment (BIA).</p>
6	Plans and sections to show layout and dimensions of proposed basement.	Yes	See DAS section 4.3
7	Programme for enabling works, construction and restoration.	Yes	See DAS
8	Identification of potential risks to land stability (including surrounding structures and infrastructure), and surface and groundwater flooding.	No	<p><u>Groundwater Flooding</u> - No impact on the existing shallow aquifer will occur because the existing basement (plan and depth) will be unchanged as part of the development.</p> <p><u>Surface water Flooding</u> - There is no work at or near ground level (only internal alterations are proposed to the existing building and basement of 31-33 High Holborn), therefore no watercourses are affected, and flood risks are unchanged.</p>

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			<p>The 'Surface Water Flooding Plan' confirms the site is located outside the extent of areas impacted by Surface Water Flooding and the risk at the site from surface water flooding is 'negligible'. The site is therefore considered to be at very low risk of flooding due to such events.</p> <p><u>Surrounding Structures</u> - A detailed ground movement assessment has been completed, which confirms the movements due to the shaft extension works will be minimal, with a magnitude of movement of less than 2mm predicted on adjacent properties. For more details please refer to WSP report TLT-WSP-XX-XX-RP-CV-00005, dated May 2024 – 31-33 High Holborn (Fulwood Place) Basement Impact Assessment (BIA).</p>
9	Assessment of impact of potential risks on neighbouring properties and surface and groundwater.	No	See above
10	Identification of significant adverse impacts.	No	See above
11	Evidence of consultation with neighbours.	No	Neighbours were consulted regarding the London Tunnels proposals. No risks have been identified and so no specific consultation has taken place.
12	Ground Investigation Report and Conceptual Site Model including <ul style="list-style-type: none"> <li>- Desktop study</li> <li>- exploratory hole records</li> <li>- results from monitoring the local groundwater regime</li> <li>- confirmation of baseline conditions</li> <li>- factual site investigation report</li> </ul>	Yes Yes N/A N/A N/A	<p>See WSP report TLT-WSP-XX-XX-RP-CV-00005, dated May 2024 – 31-33 High Holborn (Fulwood Place) Basement Impact Assessment (BIA), and the Contaminated Land Preliminary Risk Assessment (Desk Study), ref: TLT-WSP-XX-XX-AS-CV-00001 dated 30th November 2023 for the site desk study and available geology / BGS logs.</p> <p>Site specific site investigation is not required as the shallow groundwater regime within the superficial deposits will not be impacted by the proposed shaft construction works which will be undertaken at depth entirely within the London Clay stratum / top of the Lambeth Group.</p>
13	Ground Movement Assessment (GMA).	No	A detailed ground movement assessment has been completed, which confirms the movements due to the shaft extension works will be minimal, with a magnitude of movement of less than 2mm predicted on adjacent properties. For more details please refer to WSP

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		report TLT-WSP-XX-XX-RP-CV-00005, dated May 2024 – 31-33 High Holborn (Fulwood Place) Basement Impact Assessment (BIA).	
14	Plans, drawings, reports to show extent of affected area.	No	See above – no areas affected
15	Specific mitigation measures to reduce, avoid or offset significant adverse impacts.	No	See above – no significant adverse impacts expected.
16	Construction Sequence Methodology (CSM) referring to site investigation and containing basement, floor and roof plans, sections (all views), sequence of construction and temporary works.	Yes	<p>The construction sequence would be as follows:</p> <ul style="list-style-type: none"> <li>• Excavation of a 7.45m diameter, 1m deep space below the level of the last cast iron lining of the ventilation shaft exposing the lining of the two 7-foot ventilation shafts. This is approximately 36m<sup>3</sup> of excavated material.</li> <li>• Removal of two exposed rings in each of the 7-foot ventilation shafts.</li> <li>• Erection of a 7m internal diameter concrete shaft lining in the excavated space and grout the outside of the lining.</li> <li>• Excavation of the ground below the last ring built and repeat points 2 and 3 above until reaching the top of the ventilation plant tunnel after approximately 6m.</li> <li>• Internal propping and portal framework will need to be constructed in the ventilation plant tunnel to allow for removal of the top of this tunnel through the area of the shaft. This framework will need to support formwork to allow the new shaft base slab to be formed.</li> <li>• Excavation of the area around the ventilation plant tunnel will be required to form the space required for the new base slab. It is assumed that this will be an 800mm thick reinforced concrete slab comprising 35m<sup>3</sup> of concrete.</li> <li>• A portal opening will need to be formed in the wall of the new shaft facing the toilet block tunnel.</li> <li>• A square tunnel will be excavated to expose the back of the toilet block tunnel lining this will allow for an opening in this lining to be formed.</li> </ul>

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			<ul style="list-style-type: none"> <li>The excavated passage will be concreted to form a 1.5m wide, 2m high cross passage from the new shaft to the toilet block tunnel.</li> </ul>
17	Proposals for monitoring during construction.	Yes	<p>Existing tunnels (belonging to London Underground as well as London Tunnels) will be monitored using targets and precise levelling.</p> <p>Targets will also be installed on 31-33 High Holborn and neighbouring buildings, although seasonal movements are expected to be greater than any effect of the works.</p> <p>The targets along the building façades shall comprise at least 3 targets per building façade with precise levelling of the pavements at 5m centres. The targets will be manually surveyed and shall include baseline readings (3 sets), regular monitoring during construction of the shaft (5 sets on an equally spread out frequency during construction of the shaft) and post construction monitoring (3 sets on a monthly frequency for 3 months) to confirm movements have returned to being stable / the natural seasonal movement of the building facade.</p> <p>For more details, including indicative target locations, please refer to WSP report TLT-WSP-XX-XX-RP-CV-00005, dated May 2024 – 31-33 High Holborn (Fulwood Place) Basement Impact Assessment (BIA).</p>
18	Confirmatory and reasoned statement identifying likely damage to nearby properties according to Burland Scale	No	<p>A detailed ground movement assessment has been completed, which confirms the movements due to the shaft extension works will be minimal, with a magnitude of movement of less than 2mm predicted on adjacent properties. For more details please refer to WSP report TLT-WSP-XX-XX-RP-CV-00005, dated May 2024 – 31-33 High Holborn (Fulwood Place) Basement Impact Assessment (BIA).</p>
19	Confirmatory and reasoned statement with supporting evidence that the structural stability of the building and neighbouring	No	See above.

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		properties will be maintained (by reference to BIA, Ground Movement Assessment and Construction Sequence Methodology), including consideration of cumulative effects.
20	No	<p>See above.</p> <p>Please refer to WSP report TLT-WSP-XX-XX-RP-CV-00005, dated May 2024 – 31-33 High Holborn (Fulwood Place) Basement Impact Assessment (BIA).</p>
21	No	Identification of areas that require further investigation.
22		<p>Non-technical summary for each stage of BIA.</p> <p>The development comprises a refurbishment of the existing building (note, that only internal alterations are proposed to the existing building and basement of 31-33 High Holborn and the external building perimeter and basement depth and extent are unchanged). Therefore, site areas occupied by structure and/or hardstanding areas will be unchanged.</p> <p>The shaft extension works commence at approximately 27m below ground level and are entirely within the London Clay stratum / top of the Lambeth Group. Note, the shaft is not a foundation to the existing building. A detailed ground movement assessment has been completed, which confirms the movements due to the shaft extension works will be minimal, with a magnitude of movement of less than 2mm predicted on adjacent properties.</p> <p>As the works will be at depth in the London Clay / Lambeth Group there will be no significant changes to surface flood risk or to sub surface groundwater flows. Monitoring of surface buildings and existing London Underground infrastructure will be undertaken before and during the execution of the works but it is not expected that any significant movements will be measured.</p>

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			 <p>Figure 134. 31-33 High Holborn: Proposed Shaft extension</p>
<b>Additional BIA components (added during Audit)</b>			
<b>Item provided</b>	<b>Yes/No/NA<sup>2</sup></b>		<b>Comment</b>

Notes:

<sup>1</sup> NB policy A5 also requires consideration of architectural character, impacts on archaeology, amenity and other matters which are not covered by this checklist.

<sup>2</sup> Where response is 'no' or 'NA', an explanation is required in the Comment section.



**Section C : Audit proposal (to be completed by the Auditor)**

<b>Date</b>	<b>Fee Categorisation (A/B/C) and costs (£ ex VAT)</b>	<b>Date estimate for initial report</b>	<b>Commentary (including timescales for completion of Initial Report)</b>
08/05/2024	Category C - £1,215	20/05/2024	Additional fees may apply for: <ul style="list-style-type: none"><li>• Submission of additional documents requiring further review</li><li>• Meetings</li><li>• Site visits</li><li>• Attendance at planning committee</li></ul>

Note: Where changes to the fee categorisation are required during the audit process, this will require details to be updated in section E, with justification provided by the auditor. These changes shall be agreed with the planning officer and the applicant, in writing before the work is undertaken.

