

Raveley Street

Basement Impact Assessment

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Appendix: Site Plan Showing Proposed Soft Landscaping

References:

Ove Arup & Partners Camden geological, hydrogeological and hydrological study. Guidance for Subterranean Development. For London Borough of Camden November 2010

London Borough of Camden Planning Guidance CPG4 Basements and lightwells

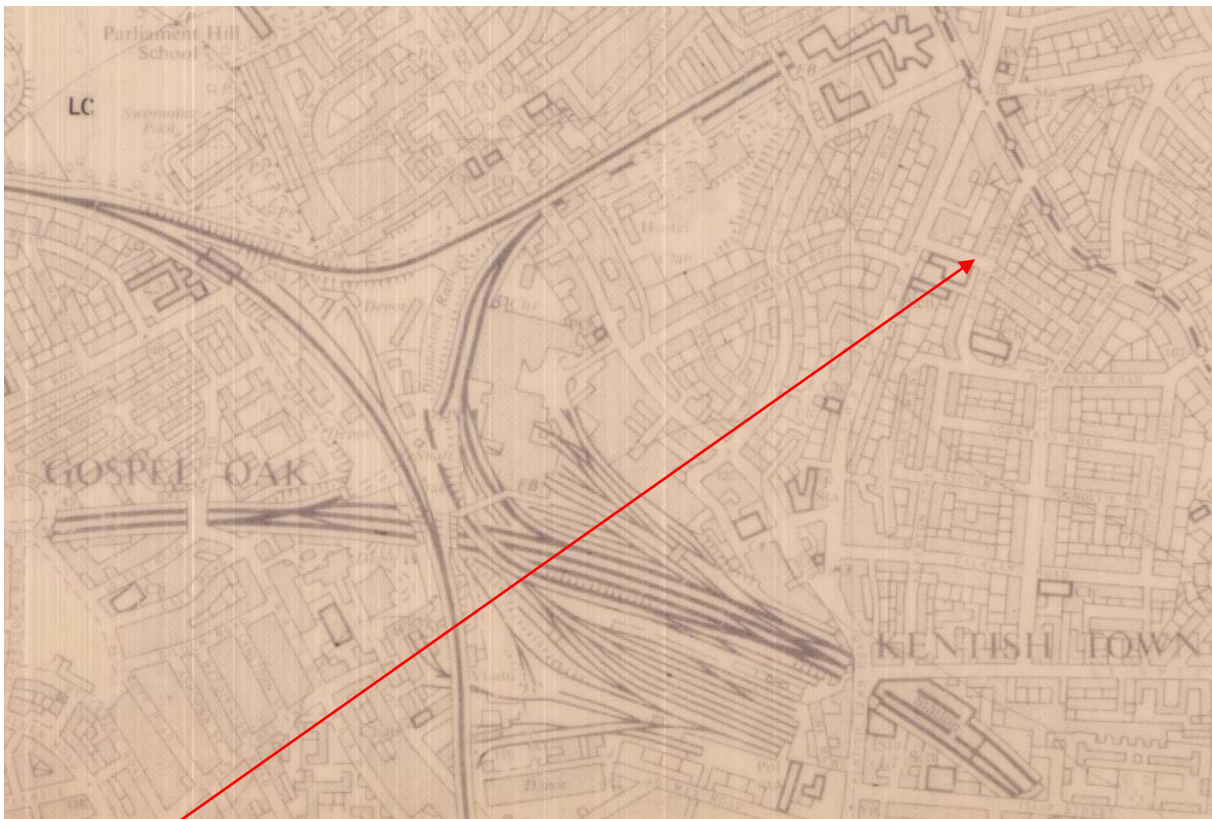
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Reviewed by: **Steve Branch BSc MSc CGeol FGS FRGS MEnvSc**
Job Number: **25766**

Date	Version	Notes/Amendments/Issue Purpose
January 2017	1	Initial Issue

Introduction

The proposed alterations to this four storey Victorian house include forming a small lightwell in front of the bay window to give light to the existing lower ground floor that extends under the full extent of the house. The space to be excavated is very small about 3.1 m by 1.5 m on plan and 2.6 m deep.

Ground Conditions & Foundations



Approximate Site Location

The British Geological Survey map – sheet TQ 28 NE shows that the site is underlain by London Clay. The London Clay is classified by the Environment Agency as unproductive strata, which refers to deposits that have low permeability and negligible significance for water supply or river base flow.

It is expected that the house will have traditional shallow brick corbel foundations. An existing brick and concrete manhole chamber serving the house is currently in the front garden just outside the position of the proposed lightwell extension and extends to a depth of 3.2 m. The drains running from the rear of the house are at a level below the proposed new lower ground floor.

The environment agency website shows the site is not in an area vulnerable to flooding from rivers and the sea; it is in flood zone 1 and that it is not in a groundwater source protection zone.

Screening

Due to the very small scale of this project, no larger than other lightwells built in front of houses on the street, this assessment has been prepared with the intent that it is commensurate with the scale, location and complexity of the scheme as required by Camden's Policy DP27 Basements and Lightwells

The screening follows the requirements set on in the Camden Planning Guidance document: CPG4 - Basements and Lightwells; as detailed in the table below:

Subterranean, ground water, flow	Response
Is the site located directly above an aquifer?	No. The site is underlain by London Clay which is designated as Unproductive Strata
Will the proposed basement extend beneath the water table surface?	No
Is the site within 100m of a watercourse, well (used/disused) or potential spring line?	No, based on topographical map evidence
Is the site within the catchment of the pond Chains on Hampstead Heath?	No. Based on topographical maps and Figures 12 and 14 of the Arup report
Will the proposed basement development result in a change in the proportion of hard surfaced/paved areas?	No, part of a soft area will become hard covered, but new soft landscaping will be introduced in a currently paved area. See attached proposed drawing in appendix.
As part of the site drainage, will more surface water (e.g. rainfall and run-off) than at present be discharged to the ground (e.g. via soakaways and/or SUDS)?	No, see comment above
Is the lowest point of the proposed excavation (allowing for any drainage and foundation space under the basement floor) close to, or lower than, the mean water level in any local pond (not just ponds chains on Hampstead Heath) or spring line.	No
Land Stability	Response
Does the existing site include slopes, natural or manmade, greater than 7°? (approximately 1 in 8)	No. The site level changes from the front of the house to the back; the lower ground floor is at the level of the back garden

Will the proposed re-profiling of landscaping at site change slopes at the property boundary to more than 7°? (approximately 1 in 8)	No, existing level change is kept
Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7°? (approximately 1 in 8)	No, according to Figure 16 of the Arup report
Is the site within a wider hillside setting in which the general slope is greater than 7° ? (approximately 1 in 8)	The general area slopes down from south to north but the Arup report indicates that these slopes are not greater than 7°
Is the London Clay the shallowest strata at the site?	Yes
Will any tree/s be felled as part of the proposed development and/or are any works proposed within any tree zones where trees are to be retained?	No
Is there a history of seasonal shrink-swell subsidence in the local area, and/or evidence of such effects at the site?	Yes, the area is prone to these effects as a result of the presence of shrinkable clay soils but there is no known history of subsidence of the house
Is the site within 100m of a watercourse or potential spring line?	No
Is the site within an area of previously worked ground?	Yes, according to Figure 16 of the Arup report
Is the site within an aquifer? If so, will the proposed basement extend beneath the water table such that dewatering may be required during construction?	No. The site is underlain by Unproductive Strata
Is the site within 50m of the Hampstead Heath ponds?	No
Is the site within 5m of a highway or pedestrian right of way?	Yes, the front garden of the house is the back edge of the footpath; this is about 2.5m away from the proposed lightwell
Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?	No
Is the site over (or with the exclusion zone of) any tunnels e.g. railway lines?	No

Surface flow and flooding	Response
<p>Is the site within the catchment of the pond Chains on Hampstead Heath</p>	<p>No</p>
<p>As part of the proposed site drainage, will surface water flows (e.g. volume of rainfall and peak run-off) be materially changed from the existing route?</p>	<p>No</p>
<p>Will the proposed basement development result in a change in the proportion of hard surfaced/paved areas?</p>	<p>No, the proportion of hard and soft areas will essentially remain unchanged as part of a soft area will become hard covered, but new soft landscaping will be introduced in a currently paved area.</p>
<p>Will the proposed basement result in changes to the profile of the inflows (instantaneous and long-term) of surface water being received by adjacent properties or downstream watercourses?</p>	<p>No, see above</p>
<p>Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream watercourses?</p>	<p>No</p>
<p>Is the site in an area identified to have surface water flood risk according to either the Local Flood Risk Management Strategy or the Strategic Flood Risk Assessment or is it at risk of flooding, for example because the proposed basement is below the static water level or nearby surface water feature?</p>	<p>The findings of this BIA together with the Camden Flood Risk Management Strategy dated 2013 and Figures 3ii, 3vii, 5a and 5b of the SFRA dated 2014, in addition to the Environment Agency online flood maps, show that the site has a very low risk from surface water flooding. There is a low flood risk from sewers, reservoirs, and other artificial sources, groundwater and fluvial/tidal watercourses. There is low susceptibility to elevated groundwater based on Figure 4e. The site is located within the Critical Drainage Area Group3_003 but not in a Local Flood Risk Zone, as identified in the Camden SWMP and Updated SFRA Figure 6/Rev 2.</p>

Conclusions

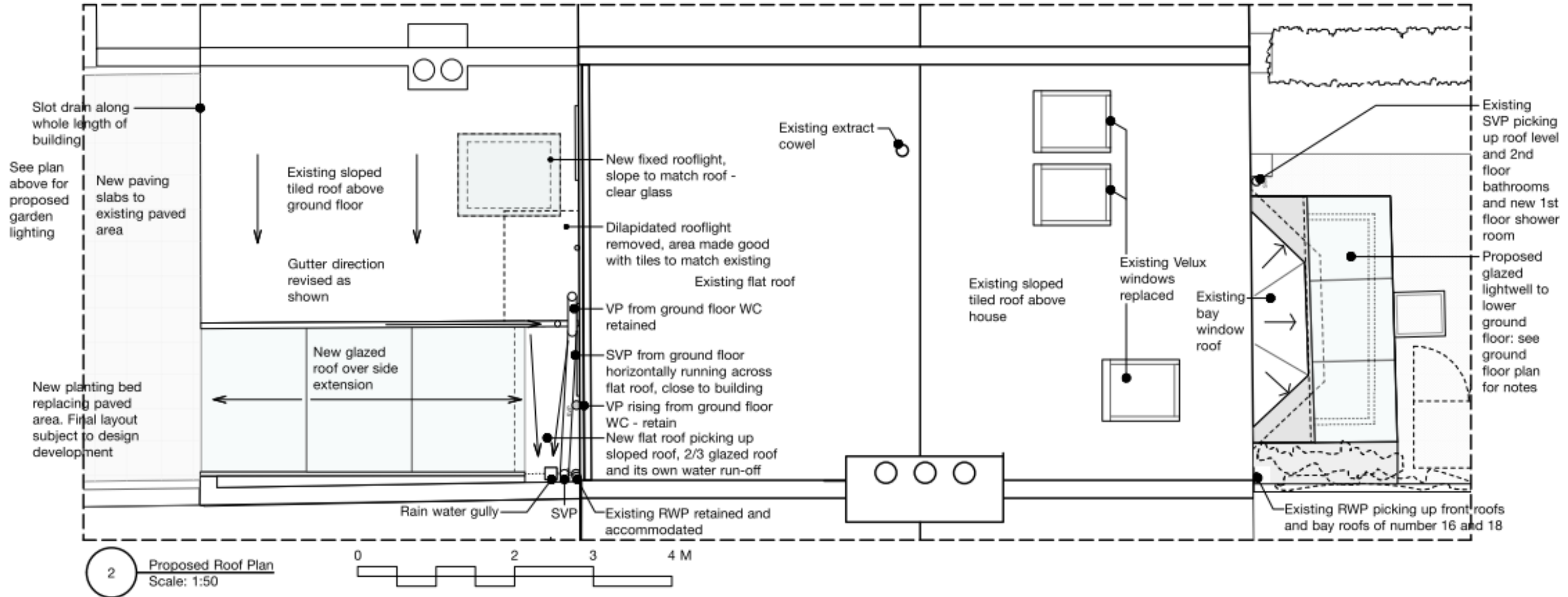
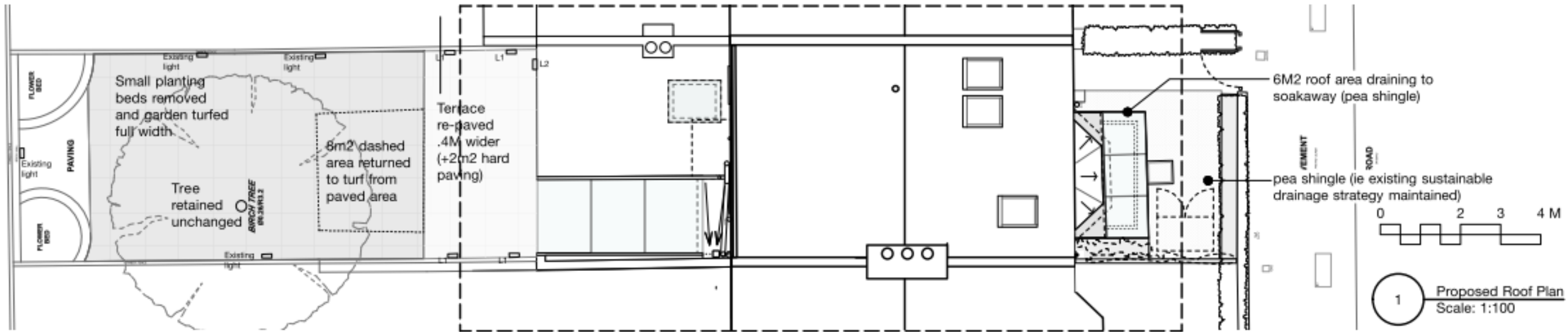
The screening process has not identified any issues with regard to groundwater, surface water or land stability which will require further consideration. Digging out this very modest volume will clearly have no significant impact on the local hydrology or land stability. It is likely that most of the excavation will be of backfill around the existing drain.

The level of the foundations is not expected to change and the excavation can be propped during construction and will be designed to minimise any movement of number 16 and thus also the adjoining properties. Damage to the building is expected to be no more than category 1 “very slight” when measured on the Burland Scale.

At this stage no further investigation is therefore proposed but a trial pit investigation to confirm the ground conditions and details of the foundations will be carried out before any building work starts should the project receive Planning Approval.

Appendix

Site Plan Showing Proposed Soft Landscaping



Do not scale



Lucy Read Architects
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L1 - Wall hung downlighters providing amenity lighting to terrace
L2 - Existing motion sensor security light with manual override relocated

16 Raveley Street NW5 2HU
Proposed Roof Plan / Site Plan
1:100 and 1:50 at A3
January, 2017

03_2004
STAGE 3 / PLANNING ISSUE