65 COMPAYNE GARDENS, LONDON NW6 3DB

Conversion of basement to form three studio units together with a reconfiguration of the existing ground floor and basement maisonette.

BASEMENT IMPACT ASSESSMENT -

Screening report

PREPARED ON BEHALF OF THE APPLICANT:

MR D COEN

Submission version

STEWART M&P S

Project Document Control

Site/Project Name:	65 Compayne Gardens
Client:	Mr Daniel Coen
Our ref:	0028/COM065
Other Ref:	
Document Location	C:\Documents and Settings\All Users\Documents\DOCUMENT CONTROL\Trust\Compayne Gdns\BIA v11.docx
Approvals	Architect, Trust Plc

Prepared By:

Document Owner(s)	Project/Organisation Role
Ransford Stewart MRTPI, MCMI	Planning consultant

Document Version Control

Version	Date	Author	Change Description
1.0	16/03/12	Ransford Stewart	Document created
1.1	19/03/12	Ransford Stewart	First complete draft
Submission draft	21/03/12	Ransford Stewart	Amendments and updates incorporated

Distribution List

Version	Date	Name(s)
1.1	19/03/12	Michael Stewart BSc, MRICS, MCIArb, Michael Yun, Janet Cotterell RIBA
Submission draft	21/03/12	Local Planning Authority

1.0 INTRODUCTION

1.1 The Statement has been produced to support a planning application for the conversion of the existing basement at 65 Compayne Gardens to form three residential studio units together with a reconfiguration of the existing ground maisonette floor and basement floor levels**.**

1.2 The proposal entails the excavation of two lightwells to the front of the building and a single lightwell to the rear. Consequently, in accordance with Policy DP27 of Camden Council's adopted development policies DPD a Basement Impact Assessment is required.

1.3 This report corresponds to the screening stage for a Basement Impact Assessment, as set out in Camden Planning Guidance Note 4, Basements and Lightwells. It is based on a desk top study and site examination carried out by the author with assistance from the project architect and our in-house building surveyor.

1.4 The statement demonstrates that the proposed scheme is unlikely to have any significant impacts in relation ground water flow, slope stability or surface flow and flooding.

1.5 The statement concludes that the scheme will not cause harm to the built environment, will not cause flooding and will not lead to ground instability therefore, having regard to the advice contained in PPS25, there is no need to progress beyond this first stage of assessment.

2.0 THE SITE AND ITS SURROUNDINGS

2.1 Compayne Gardens is a broad tree lined unclassified road that runs generally east to west between Finchley Road (A41) in the east and West End Lane (B510) in the west, south of the line of the track bed for London

Underground's Metropolitan Line as it approaches Finchley Road Station. It is bisected by Priory Road which runs in a north- south direction. The application site is located on the south side of Compayne Gardens, about 60 metres east of its junction with Priory Road.

2.2 This part of Compayne Gardens is a mature and attractive suburban street characterised by large detached two and three storey late Victorian residential properties and more recent semi-detached and flatted developments. The properties are generally set within broad frontages and many appear to be still in single family occupation.

2.3 The application site consists of a four storey mansion block with gardens to the front and to the rear that appears to have been built in the 1920s, although there is no date stone in situ. It was constructed in a Queen Ann style with red brickwork and tiles and a contrasting pale stone dressing at ground floor level and stucco detailing to the window surrounds on the upper levels.

2.4 The property has a full height basement that is generally unused except for some basement storage. However, the front, west portion of the basement houses a bathroom, kitchen and some living space used by the ground floor front flat above. The basement is in a good condition with a solid concrete floor throughout. A detailed conditions survey has not been carried out but there is no evidence of ground water ingress in any part of the basement.

2.5 The front gardens are about eight metres deep and comprise soft landscaping on either side of a central path. The rear gardens, which are about 26 metres deep, are generally laid to lawn.

2.6 Although the front garden area is generally level, the ground floor threshold of the property is approximately 900mm above pavement level and the front garden itself about 300mm above pavement level. There is a gentle fall from front to back of the building on the site of about 1:13. The rear garden is again generally flat and level

2.7 The site is within the South Hampstead Conservation Area which was designated in 1988 and updated with a management plan that was adopted in 2010.

THE PROPOSAL

3.1 The scheme proposes the conversion of the basement area of the property to provide new residential accommodation. This is a revised proposal designed to address the areas of concern expressed by the Local Planning Authority in response to previous proposals submitted in May 2011.

3.2 The scheme now proposes 3 bed-sit flats together with a revised layout for the existing front-facing maisonette. The scheme proposes the excavation of basement lightwells to the front and rear of the property although, in both case, the extent of those excavations is now significantly reduced relative to the original proposals. In fact, the excavations to the now rear amount to little more than a remodelling of the ground level adjacent to the building. All three bed-sits would now be accessed from the rear of the property.

3.3 The lightwells to the front would measure 1750mm x 3050mm and would be excavated to a depth of 1800mm below the adjacent ground level. The excavations to the rear would extend across almost the whole of the rear elevation as adjacent ground is removed to create a level sunken patio adjacent to the existing rear entrance door. The new patio area would be about 600mm below the adjacent ground level.

3.4 The form of construction would entail a simple dig to form the required level and laying a reinforced concrete floorplate that would be cast in situ. The sides would be conventional gravity retaining walls, mass concrete to the front of the building and brickwork to the rear.

3.5 In both instances it is not proposed to excavate significantly below the level of the footings of the existing property as the intention is to provide a floor slab level that would be consistent with the floor level of the existing basement.

3.0 THE SCREENING

3.1 The Local Planning Authority is concerned to ensure that proposals for the development of basements and lightwells do not have an adverse impact on the built environment, will not cause flooding and will not lead to ground instability and has therefore set up a process which it calls Basement Impact Assessment for assessing the impact of this type of proposal.

3.2 The methodology for carrying out Basement Impact Assessments is set out in Camden's Planning Guidance Note 4: Basements and lightwells. It is a 5 stage process as follows:

Stage 1 - Screening;

Stage 2 - Scoping;

Stage 3 - Site investigation and study;

Stage 4 - Impact assessment; and

Stage 5 - Review and decision making.

3.3 All basement and lightwell proposals need to complete the screening process. However, there is only a need to progress to stage 2 and beyond if the screening stage identifies a significant impact in respect of groundwater, stability or flooding.

3.4 This screening study uses a RAG system to assess the impact of the proposals in respect of each of the test criteria set out in CPG4 with commentary and diagrams taken from the Arup *Camden geological, hydrogeological and hydrological study*, November 2010, referenced and reproduced where appropriate. For the purpose of this exercise Red signifies a negative impact or positive response to the question; Yellow is used to signify that the impact is unknown or uncertain and Green is used to signify no impact or a negative response to the question.

1. Subterranean (ground water) flow screening chart

1a	Is the site located directly above an aquifer? No – see Document 1	
1b	Will the proposed basement extend beneath the water table surface? No – analysis of a number of schemes in the area reveal a range of water depths. The closest of these is 1.8m below ground level at 41 Compayne Gardens about 150m to the east of the application site. This is the same as the slab level for the front light wells. However, as the ground level at 41 Compayne Gardens is about 1m lower than at the application site, it is likely that this water table is correspondingly further below the surface level on the application site i.e. 1m below the slab level for the proposed front lightwells.	
2	Is the site within 100m of a watercourse (used/disused) or potential spring line? Historical records (Document 2) suggest that the one of the minor tributaries of the Westbourne River ran in close proximity to the site although it is impossible to identify the size of the tributary or its precise route on site or on plan. However, it is known this was culverted more than 200 years ago and diverted eventually into the Ranelagh sewer. There is no evidence of significant fluvial deposits of any sort within the site. As it is not proposed to excavate below existing basement level on any part of the site, it is considered that there is no need for any mitigation measures to be incorporated within the design for the proposed lightwells. Notwithstanding the above, the lightwells will be constructed to withstand a rise in the water table up to the top of the slab level.	
3	Is the site within the catchment area of the ponds chains on Hampstead Heath? No – See Document 3	
4	Will the proposed basement development result in a change in the proportion of hard surfaced/paved area? No - permeable surface treatments are proposed to be used for the rear lightwell. The proposed front lightwells would have an area of about 10m² in total and would result in a less than 1% change in the proportion of hard surface (including buildings) to soft landscaped area. This could only have a negligible impact on groundwater flow.	
5	As part of the site drainage, will more surface water than at present be discharged to the ground? No	
6	Is the lowest point of the proposed excavation close to or lower than the mean water level in any local pond or spring line?	

	No - there are no water bodies or springs nearby. See Document 4.	

2. Ground stability screening chart

1	Does the site include slopes, natural or man-made greater than 7º? (approximately 1:8) No - Document 5 shows slopes in the borough generally and there are none in excess of the threshold within the vicinity of the site. The slope in the site is about 1:13, as advised earlier.	
2	Will the re-profiling of landscaping at site change slopes at the property boundary to more than 7º? No	
3	Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7º? No	
4	Is the site within a wider hillside setting in which the general slope is greater than 7º? No	
5	Is the London Clay the shallowest strata on the site? No – Document 6 suggests that London Clay lies on top of a thinner band of Lambeth Group	
6	Will any tree/s be felled as part of the proposed development and/or any works proposed within the tree protection zones where trees are to be retained? Works will be carried out within the canopy of a Magnolia bush in the front garden which may necessitate its removal. In such event a replacement will be planted as close as possible to the location of the current bush: it is the client's intention to treat this specimen as though it were a tree although it is in fact a shrub. Magnolias prefer well drained sites in full sun and therefore do not draw significantly form ground water resources. Their root systems tend to be non-invasive making them extremely well-suited to front garden locations such as this.	
7	Is there a history of seasonal shrink-swell subsidence in the local area and/or evidence of such effects at the site? No – Trust Plc and its predecessor company have managed this property for more than 50 years and have no record of any such effects.	

8	Is the site within 100 metres of a watercourse or a potential spring line? No	
9	Is the site within an area of previously worked ground? No	
10	Is the site within an Aquifer? No	
11	Is the site within 50m of Hampstead Heath ponds? No	
12	Is the site within 5m of a highway or pedestrian right of way? No	
13	Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties? No - The differential will remain unchanged as it is not proposed to excavate below the existing foundation levels.	
14	Is the site over or within the exclusion zone of any tunnels e.g. railway lines? No – See Document 7.	

3. Surface flow and flooding screening chart

1	Is the site within the catchment area of the pond chains on Hampstead Heath? No – See Document 3	
2	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? No - as above	
3	Will the proposed basement development result in a change in the proportion of hardsurfaced /paved external areas? No - permeable surface treatments are proposed to be used for the rear lightwell. The proposed front lightwells would have an area of about 10m² in total and would result in a less than 1% change in the proportion of hard surface (including buildings) to soft landscaped area. This could only have	

	a negligible impact on groundwater flow.	
4	Will the proposed basement result in a changes to the profile of the inflows (instantaneous and long term) of surface water being received by adjacent properties or downstream watercourses? No – the proposed excavations are quite shallow and do not go permanently beyond the depth of the existing foundations and therefore it is not anticipated that these will interfere with any existing flows.	
5	Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream watercourses? No	
6	Is the site in an area known to be at risk from surface water flooding or is at risk flooding, for example because the proposed basement is below the surface water level of a nearby water feature? No – See Document 8.	

4.0 Conclusion

4.1 The screening study shows firstly that there are no 'red' impacts and, more specifically, that the proposed development would have no impacts in respect of surface water flow and flooding and only minor impacts in respect of groundwater flow and ground stability.

4.2 With regard to ground stability, the scheme could result in the loss of a tree, which is actually a shrub, which is likely to be making only minimal demands on ground water resources. The loss of this tree is therefore unlikely to have any significant impact in relation to groundwater resources and therefore, no mitigation is considered necessary. Nonetheless, in the event that this shrub is lost, it is proposed to replace it for amenity reasons with a similar shrub rather than a tree to insure that undue stress is not placed on groundwater resources that might, in turn, impact on ground stability.

4.3 With regard to groundwater flow whilst it would seem likely that the site is in close proximity to a former watercourse, it is well documented that this was culverted and diverted more than 200 years ago. The prospects for this

becoming active again by natural causes or as a result of catastrophic events such as a pond burst at Hampstead Heath, are extremely remote. Again, no mitigation is considered necessary.

4.4 In light of the above, it is considered that the proposed scheme will not cause harm to the built environment, will not cause flooding and will not lead to ground instability therefore there is no need to progress beyond this first stage of assessment.

Schedule of documents – all reproduced from the Camden Geological, Hydrogeological and Hydrological Study

Document 1	Camden Aquifer Designation Map
Document 2	Watercourses
Document 3	Hampstead Heath Surface Water Catchments and Drainage
Document 4	Camden Surface Water Features
Document 5	Slope Angle Map
Document 6	Geological Long Section (NW – SE)
Document 7	Transport Infrastructure
Document 8	Flood Map

Ransford Stewart

21st March 2012