Address:	**3 Kidderpore Avenue London NW3 7SX**	
Application Number:	2010/3432/P	**Officer: Gavin Sexton**
Ward:	Frognal & Fitzjohns	
Date Received:	**29/06/2010**	

Proposal: Excavation of a double basement to provide additional residential accommodation including swimming pool and underground parking facilities to existing dwelling house (Class C3).

Drawing Numbers:
Site Location Plan; A-KA29-EX00, -EX01, -EX02, -EX03, -EL02 (proposed East and West elevations), Li (Proposed sections to lightwells), SU (SUDs details), SC01 revB(July 2011), SC02 revB(July 2011), SC03 revA, SC04 revB(July 2011), PL00 revB (July 2011), PL01 revB (July 2011), PL02 revB (July 2011); EcoHomes pre-assessment by Hoare Lea; Letters from Hugh St John (GCG) and TWS dated 5th August; Construction Traffic Management Plan by TWS dated May 2010; Supplementary Arboricultural Report by GBA Sept 2009; Comments by GCG on Eldred report of 27/08/2010; Comments by TWS & GCG on Eldred report of 30/03/2011; Marley Waterloc data sheet; MRH Borehole details in letter from TWS dated 22nd Jan 2010; Intelligent Parking CarDok Brochure; Environmental Noise Survey by report Hoare Lea; 8148-rev A_Construction Traffic Management Plan_Dated 20th May 2010; Construction Method Statement by TWS dated Feb 2011with appendices A, B, C, D, G; Interpretative Report on Ground Investigations_Dated February 2011_Revision 1 - Appendix E; Preliminary Damage Assessment Report_Dated February 2011_Revision 1 - Appendix F; CRM Stormflow management sheets 30 and 100 year storms (11/04/2011); Drainage and Surface Water Flow Appraisal by TWS June 2011; Comments dated May 2011, (by TWS & GCG), on report by Eldred Geotechnics Ltd dated 30/03/11;

RECOMMENDATION SUMMARY: Planning Permission is recommended for approval subject to a S.106 Legal Agreement

Applicant:	**Agent:**
Cathcart LTD 279 Main St POB 213 Gibraltar	SIAW LTD Winston House Suite 322 2 Dollis Park LONDON N3 1HF

ANALYSIS INFORMATION

Land Use Details:			
	Use Class	Use Description	Floorspace

Existing	*C3*	*Dwelling House*	*573.9m²*
Proposed	*C3*	*Dwelling House*	*1995.3m²*
Parking Details:			
	Parking Spaces (General)	Parking Spaces (Disabled)	
Existing	*6*	*0*	
Proposed	*4*		

Reason for Referral to Committee: The Director of Culture and Environment considers that the application should be considered by the committee [Clause 4].

1. **SITE**

1.1 The application site is a detached single dwelling house on the southern side of Kidderpore Avenue. It is not listed, but is located within the Redington/Frognal Conservation area. The Conservation Area Statement identifies the building as making a positive contribution to the conservation area. This is discussed in more detail in the design section of the report.

2. **THE PROPOSAL**

Original

2.1 Excavation of a double basement to provide additional residential accommodation, swimming pool and underground parking facilities to single dwelling house (Class C3) following demolition of pool house in rear garden.

2.2 The basement would be two levels deep and would cover the area under the dwelling, would project to the front boundary except in the root protection area of the existing trees and 24m into the rear garden (which is approx 28m long). At the point closest to the neighbouring dwellings the basement would be approx 6m deep, deepening to approx 7.5m at the location of the swimming pool.

Revisions

2.3 The following revisions/additional information have been received during the life of the assessment:

- The demolition of the pool house was approved at appeal by the Inspector (see Appendix) and no longer forms part of the considerations.
- Further detailed information received in respect of Basement Impact Assessment, SUDs and drainage,
- Basement altered : clerestory windows removed
- Staff accommodation removed from basement

3 RELEVANT HISTORY

3.1 **2009/4524/P**: Planning consent **refused** for "Excavation of a double basement to provide additional residential accommodation, swimming pool and underground parking facilities to single dwelling house (Class C3) following demolition of pool house in rear garden." and associated Conservation Area Consent (2009/5076/C) for the demolition of the swimming pool, also **Refused**. An appeal was lodged. The

planning application appeal was dismissed and the Conservation Area Consent appeal was allowed. See section 6 for more information.

3.2 **2009/0685/P** Erection of a three storey, single family dwellinghouse with a double basement, swimming pool and alterations to the boundary treatment following the demolition of the existing dwellinghouse (Class C3). **Withdrawn.** Associated conservation area consent application (Ref: **2009/0686/C)** for the Demolition of the existing three storey single family dwellinghouse (Class C3). **Withdrawn.**

3.3 **2006** Various tree works approved and refused. **2006/3717/T, 2006/5398/T**, **2006/5728/T, 2007/1750/T**

4. CONSULTATIONS

4.1 Conservation Area Advisory Committee

Redington/Frognal CAAC:

- Gross overdevelopment –
- Does not meet policy DP27
- Structural report submitted is unconvincing and does not address dangers of excavating 6m basement and construction on a site well known for underground watercourses

4.2 Heath and Hampstead Society – response to first consultation

- Gross overdevelopment of site of low residential density - proposal is breath taking offensive -such subterranean development may be acceptable in city centres but not here
- Non -compliant with DP27
- Desk study only submitted which is not enough
- Denies PPG14 - applicants case that this can be constructed safely is unproven
- Effect on trees on and off site likely to be disastrous - this is addressed inadequately in submitted documents
- Inclusion of car parking in basement contravenes Camden's policies on off-road parking - car lift will be noisy and lead to neighbour nuisance
- The sub-basement has sub-standard staff flats
- Developers report does not demonstrate that the proposals meet requirements of PPG14, PPS25, DP23 or DP27
- Full text of PPG14 is not addressed
- Neighbours report shows convincing geotechnical and engineering grounds that the development could not proceed safely
- Developers report makes no reference to DP27 relies on superficial analysis of soil conditions - prediction about soil movement and possible structural damage are systematically and professionally refuted by neighbours report
- Developers report makes no reference to DP23 and PPS25 - in addressing risks of flooding the applicant relies on superficial analysis of soil conditions which has a strong bearing on groundwater flow risks - especially relevant given earlier impact of Westfield college development as explained in neighbours report

- The onus to demonstrate that the work can proceed safely is on applicant and this has not been done

H&H also included long letter of comment on materiality of PPG14

4.3 Environment Agency

No objection to the proposed development and no conditions requested.

4.4 Thames Water

Request that non-return valve be placed on the system to avoid risk of backflow later.

Request that swimming pool be emptied overnight and in dry periods and discharge rate controlled to be not more than 5l/s.

Commented that the swimming pool would require metering.

Adjoining Occupiers

	Original	**R1**
Number of letters sent	27	27
Total number of responses received	18	23
Number of electronic responses	4	7
Number in support	2	17
Number of objections	16	6

Neighbour and local amenity

4.5 First consultation:

- Noise and nuisance will be appalling
- Traffic and parking will also be awful - would result in excessive construction traffic - will generate many lorry movements to remove earth and spoil etc we calculate over 1000 skip loads
- Construction method statement is a series of platudinous over-optimistic generalities which over estimates the capabilities of the local road network and misuse of local street names indicates authors have not been to site
- What guarantees are there of controls on plant noise?
- Summer house with sleeping and study accommodation in rear no 7 not shown - likelihood of flooding is high - plant room would back on to summer house and this is not acknowledged by noise report
- High likelihood of intolerable noise and vibration right next to 1a which can have enormous impact on mental health and stress
- Unacceptable noise increase from car lift
- Immense disruption to access to no 1a due to skips etc
- Quite a number of elderly people locally who will be put at risk from trucks etc
- Applicant should move instead of digging
- Where will ventilation from plant room be placed?

4.6 Second consultation:

- Sleep disturbance from car lift at front
- Application fails to make sufficient allowance for construction traffic -
- Noise from pool plant is next to neighbouring garden house

- 1000 truckloads will have difficulty negotiating locally congested roads
- Two schools in close proximity - new one on Kidderpore Avenue itself and another (St Margaret's) on Kidderpore Gardens
- Council must know if traffic can be managed - not enough just to secure CMP
- LB Camden should know of expected noise levels from construction
- Number of lorries to clear site is unconscionable

4.7 Basement impact (general)

- Development goes far beyond what is anticipated in DP27
- Camden must consider precedent that this application sets
- Report seems to be largely desktop affair - recommending soil investigation -
- Where will spoil be disposed of?
- No new information provided in respect of local flooding despite local knowledge and experience expressed by neighbours and amenity groups
- If there is damage what is the recourse?
- Why should parking bays be suspended for skips when there is plenty of room on site?
- Many local residents are Jewish and would be offended that substantive building works would take place on Saturday mornings

Basement impact (ground water)

4.8 First consultation:

- Horrified to hear chairman at last DCC did not know where underground rivers are located
- Subterranean flow of water will be altered to the detriment of garden in 1a and there is no provision to deal with this - replacement of flowering cherry will be impossible to establish if garden becomes water starved by basement impact
- Size of proposed basement likely to affect hydrology of area - Camden should carry out independent examination of hydrological consequences of the proposals
- Construction of Westfield has already changed hydrology of area - no 9 suffers rear garden flooding where this never happened before - it is simply not true to say underground streams along ends of gardens on Kidderpore Avenue do not exist
- Hydrogeology review is incomplete - proposes full soil investigation but this not done - conclusions reached are theoretical and uncorroborated - reality is that water coming down will meet 50m barrier and where will it go?
-

4.9 Second consultation:

- Effect on groundwater has not been adequately addressed
- It is known that a river runs below the properties on this road
- Investigations into water table are totally inadequate
- 2 Kidderpore Avenue has had to fit a basement pump
- Water table in Hampstead is rising

Basement impact (structural stability)

4.10 First consultation :

- Lots of houses on odd-side of Kidderpore Gardens suffered subsidence years ago
- Potential for damaging structure of neighbouring properties by removal of lateral support is obvious
- Applicant states neighbouring buildings look sound and well maintained - seems cynical to suggest this and are therefore able to withstand shocks from basement construction - no attempt made to inspect ground in neighbouring sites
- Buildings 7, 7a and 5 were built as one dwelling 100 years ago and are subject to subsidence
- Little new specific technical information on impact of effect of construction - no calculations of ground movement have been made
- Boundary wall with no 5 comes right up to boundary with no 3 but this is not shown
- No comfort that impacts would be dealt with by party wall agreement
- House at 1a extends to boundary of no 3 along a section towards the rear - foundations of this part could potentially be undermined by basement so close to boundary - there is a damp problem on boundary between 1a and 3 already due to gravel infill - how will structural integrity of no 1 be maintained?
- No 5 is over 100 years old and about 20 years ago was subject to major works to rectify subsidence - noise from works would be intolerable and could have devastating effect on no 5 - no attempt made by applicant to examine condition of no 5 -
- 4 Kidderpore Avenue have already underpinned due to subsidence on road with continuous flooding problems

4.11 Second consultation:

- Changing water levels and excavation will exacerbate the problems which are evident locally (cracks in gardens walls etc)
- There must be solid proof on these issues before the decision is made
- If permission granted it must be subject to clear and structural monitoring and restrictions must be placed for safeguarding the adherence to conditions
- See no evidence for how movement may be limited to 1-5mm - stronger retaining walls should be used
- No attempt has been made to examine condition of 1a
- All aspects of the work should be specified and considered in detail in advance of a decision and construction should be strictly enforced by an independent qualified party
- If permission granted then prerequisite must be for strict supervision and scrutiny of qualified independent structural engineer

Basement impact (surface water and trees)

4.12 First consultation:

- Arboricultural assessment of impact carried out from within application site with no attempt to visit next door - dissatisfied with tree report - have been informed that 'mature trees are very intolerant of ground water changes' - there is very old and large oak in rear number 7
- No 11 may lose some light and possibly trees

- Applicant has previously applied to remove all trees on site showing no regard for such things
- Plans for refurbishment of 1a accompanied by new tree planting regime and past removal of trees in rear 1a requires new planting - proposed basement would effect current planting in 1a and halt future tree planting possibilities
- No 3 front forecourt has flooded into neighbouring number 1a causing damage in 2002 - although Kidderpore Avenue not listed as being at risk of flooding Kidderpore Gardens are - is this considered in terms of scale of proposals?
- Are the plans for drainage sufficient?
- Not convinced that engineers have adequate understanding of geological and hydrological conditions on the site
- Planning should be mindful of requirement to allow planting of trees along boundary with no 3 and basement should not inhibit planting of new trees locally

4.13 Second consultation:

- Rear garden flooding has been aggravated since Westfield - garden house will be damaged by increased flooding - no satisfactory assessment of flooding
- Trees - there has been no assessment of danger to oak tree and no evidence that changing water levels won't affect trees
- Particularly concerned about surface water flooding flowing adverse affects suffered as a result of Westfield

4.14 Other concerns

- Is it not role for Camden officers to sift through applications and only consult on those which meet policy?
- Why are we asked to go through the process again?
- Why has application come through before appeal decision and not other way around?
- Where are the site notices?
- Owners of property have not attempted to contact local residents
- Monstrous and totally unsuitable for a CA
- This is Kidderpore Avenue not Bishops avenue
- Already battles taking place over number 9 and 14 Kidderpore - at this rate the whole of the neighbourhood will be irrevocably damaged
- Surely a swimming pool and gym do not merit the upheaval to neighbours
- Understand car parking and smoking room to be included - against recent Government legislation to minimise carbon emissions
- Great possibility that additional strain put on gas, electricity etc may make such services erratic for neighbours
- There should be an EIA
- This application may only represent first stage for future re-development of the house
- Scale of proposal is objectionable
- Proposals are too big and too close to neighbouring properties

5. **POLICIES**

LDF Core Strategy and Development Policies

CS1 (Distribution of growth)

CS4 (Areas of more limited change)
CS5 (Managing the impact of growth and development)
CS6 (Providing quality homes)
CS11 (Promoting sustainable and efficient travel)
CS13 (Tackling climate change through promoting higher environmental standards)
CS14 (Promoting high quality places and conserving our heritage)
CS15 (Protecting and improving our parks and open spaces and encouraging biodiversity)
CS16 (Improving Camden's health and well-being)
CS19 (Delivering and monitoring the Core Strategy)

DP2 (Making full use of Camden's capacity for housing)
DP3 (Contributions to the supply of affordable housing)
DP6 (Lifetime homes and wheelchair homes)
DP16 (The transport implications of development)
DP17 (Walking, cycling and public transport)
DP18 (Parking standards and limiting the availability of car parking)
DP19 (Managing the impact of parking)
DP20 (Movement of goods and materials)
DP21 (Development connecting to the highway network)
DP22 (Promoting sustainable design and construction)
DP23 (Water)
DP24 (Securing high quality design)
DP25 (Conserving Camden's heritage)
DP26 (Managing the impact of development on occupiers and neighbours)
DP27 (Basements and lightwells)
DP28 (Noise and vibration)
DP32 (Air quality and Camden's Clear Zone)

6. ASSESSMENT

Background

6.1 This is a re-application of the previously refused scheme, with extensive additional information supplied by the applicant. A chronology of events leading to this report is presented in Appendix A which tracks the evolution of the development proposals and helps to frame the context for the assessment.

Appeal History

6.2 The previous application was refused for three reasons which are given in abbreviated form below (policies omitted).

1 The applicant has failed to demonstrate that the site is capable of supporting the development without serious adverse consequences by failing to provide sufficient evidence that the works required to implement the development would not result in harm to the existing ground conditions and the structural stability of the building and neighbouring properties, and that it would not have an adverse effect on the water environment or neighbour amenity.

2. The applicant has failed to provide sufficient evidence to demonstrate that the construction works required to carry out the development would not result in an unacceptable impact on local amenity and the public highway.

3.The proposed development, in the absence of a legal agreement to secure financial contributions towards highway works, would be likely to result in an unacceptable impact on the public highway.

6.3 In dismissing the appeal the Inspector concluded in respect of reason #1: *"I cannot be sure, on the basis of the information available to me, that the proposed basement development would not have an unacceptable effect on the structural integrity of neighbouring properties and/or local hydrology."* The current application provides additional information in order to address this concern.

6.4 In considering reasons 2 and 3, the inspector concluded *"I am satisfied that any outstanding issues relating to the CMP could be resolved*". Likewise the financial contribution to the highways works could be secured by S106 agreement.

6.5 **The principal considerations for this application are:**

1. Land use;
2. Basement considerations
3. Neighbour Amenity and
4. Transport;

Land Use

6.6 The existing building is listed in the Redington/Frognal Conservation Area statement as a positive contributor. Mention is made to no. 3 on page 17 as being a *"…modestly sized former outbuilding which features an impressive large bay window to its street frontage*". As is pointed out in the application, this appears to be an error as it more accurately describes the neighbouring building (no. 5). However, both the map and audit list this building as a positive contributor. Research has shown that the building was originally constructed in the late C19th but was altered in the 1970s by Patrick Gwynne, a C20th architect who has had many of his works listed. The side extension and garage was also by Gwynne, and were built slightly later. Comparing the plans of the 1970s alterations with the existing condition of the building, it can be seen that the exterior of the building has been altered again.

6.7 The building itself was originally constructed as a formal part of the development of Kidderpore Avenue and its original scale, proportions and distinctive roof form are clearly evident and as such it makes positive contribution to the conservation area. The original submission included an application to demolish the pool house. As shown in the chronology the application for Conservation Area Consent was allowed by the Inspector and subsequently the application was withdrawn. Therefore the development proposals are limited to the construction of a basement with front and rear lightwells and front vehicle access via carlift.

6.8 The proposal would result in an increase of c.1420m2 of residential floorspace. Generally the addition of more than 1000sqm of residential floorspace would trigger

the need for a contribution to the supply of affordable housing, in accordance with policy DP3. However CPG 2 (para 2.23) states that *"In assessing capacity, the Council will take into account whether the additional area is capable of forming habitable space.*" The basement would be entirely subterranean, with the vast majority of the floorspace identified as fulfilling amenity or secondary functions, ancillary to the main dwelling and would not form habitable space. Only approximately 110m² of this is considered to be habitable floorspace. Therefore no contribution to affordable housing could be justified.

6.9 There have been several objections to the works as overdevelopment. This suggests that the site does not have the capacity for the proposals. The site capacity can be considered from three perspectives:

- Intensification of use
- Visual impact
- Containment of impact

Land use: Intensification of Use

6.10 The basement would be ancillary to the main dwelling and would not increase the number of residential units on the site. While the floorspace of the dwelling would increase substantially there is no suggestion that it would be used for anything other than as a dwelling house.

Land use: visual impact:

6.11 The basement would not be accompanied by any above-ground extensions to the host property and would have limited visual manifestations in the form of lightwells. The proposals would therefore have limited visual impact and would preserve the character and appearance of the building and the conservation area.

6.12 The outward appearance of the excavated area would be of outdoor garden space (with a surface layer of grass). Manifestations such as skylights and lightwells have been limited and are generally located in inconspicuous locations around the perimeter of the garden at the rear where their impact will be limited. As such, there is no objection to this element of the scheme in terms of its impact on the overall character and appearance of the building and that of the conservation area.

6.13 To the front, a small grille is proposed but this is not considered harmful to the appearance of the building. A car lift is also proposed on the front drive. When retracted this would have no visual impact, it is only the impact of it when it is up which is of concern. A condition would be attached requiring the lift return to its lowered position after every use.

6.14 The building is on a hillside, therefore both the front and rear gardens are on a slope. Long and cross sections through the garden demonstrate that the existing gradients would be reinstated once the excavation has been completed. Overall the visual impact of the proposals would be acceptable. They would also be accompanied by the positive visual benefit of the removal of the existing swimming pool building.

6.15 In assessing the visual impact of the proposals that inspector concluded (para 14) "*As the overwhelming majority of the development would be underground, I am*

[also] satisfied that it would not harm the overall character or appearance of this particular part of the Conservation Area."

Land use: containment of impact

6.16 Policy DP27 sets out a number of key considerations for assessing whether basement proposals are designed to take sufficient account of their potential impact and therefore by implication are appropriately scaled. This is considered further in below.

Basement considerations

6.17 DP27 sets out a number of key principals that developers are required to demonstrate for their scheme in order to ensure that the impact of the development would be acceptable. These details are normally required to respond to the screening flowcharts of CPG4, presented in the form of a Basement Impact Assessment (BIA). The applicant has submitted a number of detailed technical documents throughout the course of the assessment which together comprise the BIA. These are discussed in the relevant sections below.

6.18 The basement considerations are a combination of general parameters and matters which require highly technical assessment. The following sections summarise key points from each, accompanied by the relevant objections, the findings of the expert opinion given by Arup and a summary conclusion. Each aspect of DP27 is dealt with individually below.

Basement considerations: Independent assessment.

6.19 Following the Inspectors' decision's on the refused application at this site and at 9 Downshire Hill, the applicant met with officers to agree the scope and nature of Basement Impact Assessment. Further details were submitted (see appendix for chronology) and consulted on. Following the receipt of further technical objections it was concluded that it would be expedient to conclude the technical assessment by engaging a third party expert to give a view on the submission. Arup were subsequently given a brief to assess whether :

a. the Basement Impact Assessment has been prepared in accordance with the processes and procedures set out in the Arup report ('*Camden geological, hydrogeological and hydrological study'*, which was used as the basis for preparing the CPG), for both temporary and permanent works.
b. methodologies have been appropriate to the scale of the proposals and the nature of the site.
c. the conclusions have been arrived at based on all necessary and reasonable evidence and considerations, in a reliable, transparent manner, by suitably qualified professionals, with sufficient attention paid to risk assessment and use of conservative engineering values/estimates.
d. the conclusions are sufficiently robust and accurate and are accompanied by sufficiently detailed amelioration/mitigation measures to ensure that a grant of planning permission would accord with DP27.

6.20 Arup were not engaged to re-assess the submission from first principals, but to assess whether the submitted BIA was comprehensive and accurate enough to meet the terms of the policy. All submission documents received up to the point of Arup's engagement and technical objections by third parties were passed to Arup

for consideration. Arup prepared a report in response and a summary of key elements is set out in the section that follows. A section S106 head of term would be added to secure the costs of this assessment, in the event that it is not recovered in advance of the decision date.

Basement impact on structural stability: details submitted

6.21 Policy DP27(a) requires developers to demonstrate by methodologies appropriate to the site that their scheme maintains the structural stability of the building and neighbouring properties. CPG4 sets out that *"the engineering interpretation will require calculations of predicted ground movements and structural impact to be provided"* and provides a screening flowchart for slope stability in order to identify issues of structural concern.

6.22 The applicant's BIA comprises the following details of relevance to structural stability:

- Construction Method Statement (CMS) and Consideration of Structural Stability (with appendices A-G).
- Interpretative Report on Ground Investigations
- Preliminary Damage Assessment Report
- Planning Stage Structural Calculations

6.23 The CMS sets out the approach to construction of the basement. Appendix B provides an illustrated sequence of works as follows:

1. Ground floor of the existing house would be dropped by 500mm to allow entry by small piling rigs for underpinning.
2. Basement boundary piled
3. Capping beam and front forecourt slab constructed first, then remainder of top slabs constructed
4. Top down excavation under top slab
5. Raft slab constructed at -1
6. Excavation to -2 and construction of bottom slab

6.23 Appendix E provides the technical interpretive report on the ground conditions. It concludes that the site is not at risk from instability. Appendix F (preliminary damage assessment report) with accompanying calculations in Appendix G conclude that the maximum movement of the ground at any point outside the basement is unlikely to exceed 10mm.This could result in 'very slight' damage to the adjacent structures (according to Burland scale this would represent "*fine cracks easily treated during normal redecoration ,approx crack width < 1mm"*).

Impact on Structural stability : technical objections

6.24 Summary of technical points raised by Eldred

- Disclaimers in submission suggest no responsibility for estimates of ground movement and structural damage would be passed to next stage post-planning
- Means of forming access for piling has not been defined. Construction cannot proceed if rig cannot enter building which relies on assured stability of no 5 flank wall.

- Ground information remains inadequate. Assumptions about groundwater conditions and geotechnical parameters are doubtful in a number of respects.
- Excavation required for clerestory area to the rear would be deeper than elsewhere and no estimates of movement have been provided for this.
- Estimates of ground movement are optimistic
- Estimates of movement calculated by Eldred are greater than applicant's figures.
- 450mm piles for clerestory are would be structurally inadequate.
- No justification for assertion that no more than slight damage would occur to number 5 - 5 Kidderpore Avenue unsuitable for normal assessment of risk of damage - opinion is that number 5 is not structurally robust.
- Cannot see how ground movement estimates can be reliably provided.
- Basement in front area would redirect water demand of tree to number 5 leading to increased risk of subsidence in number 5.
- Evaluation of structural risk to no 5 in a responsible and meaningful way is not possible
- Should permission be granted a suitably qualified chartered engineer should be appointed as lead designer to review and oversee all stages of the design and construction process

Impact on structural stability : Arup assessment

6.25 Structural concerns are considered in the CPG4 screening flowchart on slope stability which identifies 13 tests relevant to the site and development context. Arup assessed the submission's response to the 13 tests. Their conclusions and recommendations are set out in tables 1-2 below.

Slope stability flowchart tests (numbered as L1-13)	Arup conclusion	Arup further comment
L1-6	Acceptable	
L7 (Local history of shrink/swell subsidence)	Impact to be assessed	Arup concluded that the implication of this test is relatively low due to the basement plans which have been arranged to stay beyond the canopy of the larger trees in the area. Recommend that a tree management process be put in place to maintain the existing trees at the same size as current. Arup conclude that the risk to trees is relatively small.
L8 (Site within 100m of watercourse)	Impact to be assessed	Arup identified that the Westbourne River is likely to be close to 100m from site and topography north of site is suggestive of water flow from north to south. They concluded that the preliminary assessment identified this as a low risk factor in the considerations.
L9-11	Acceptable or low risk	
L12(Site within 5m of highway?)	Impact to be assessed	Arup consider that the proximity of the highway is not a concern based on the form of the basement.
L13 (Increase in differential depth of foundations relative to neighbours?)	Impact to be assessed	The new basement would be significantly deeper than the existing. Arup identified 5 key issues and how the applicant has addressed them *(in italics)* as follows: 1. Ground parameters relative to retaining wall design: *current analyses may be considered to be probable rather than worst case.* 2. Surcharge loading: *Calculations include an assessment of this* 3. Retaining wall installation movement: *appropriate assessment has been made and details to be finalised at detailed design stage*. 4. Retaining wall movement due to excavation of basement: *A further assessment with more conservative estimates is recommended at detailed design stage.* 5. Assessment of damage: *Building damage described in qualitative terms only*.
L14	Proposals acceptable	

Table 1: Slope stability test summary

6.26 In assessing the adequacy of the submission in respect of Structural concerns Arup engineers have made a number of observations, which are set out below in Table 2. Their recommendations are also identified and any further subsequent response from the applicant.

Issue	Impact	Arup Recommended action	Applicant response
Simplified references in the documentation to actual depth basement	Unlikely to have detrimental implications beyond the site.	None	Description of the general depth of excavation in the summary is lower than the proposed greatest depth. Arup acknowledge that the calculations were done for the worst case, and therefore no action was required
Long term water collection under the basement which needs to be removed	There may a change in long term groundwater conditions and associated ground movement	Long term performance of basement and manner in which it can impact on adjacent structures to be demonstrated. Long-term movement resulting from pore-pressure should be quantified at design stage and design adjusted accordingly.	Will be addressed at detailed design stage. Agree it is important to have a well defined strategy and to estimate the impact of the approach that is selected. Nevertheless, we would point out that the changes in pore pressure outside the basement in the long term are unlikely to have a detrimental effect on the adjacent structures.
Two boreholes drilled to 15m and one to 10m	Implications that line of drainage crosses the site not explicitly addressed in submission	None	The reports on the ground and water conditions in CMS (Feb 2011) detail three boreholes. Arup acknowledge that any water flow across the site is likely to be near surface, in form of flow from west to east near the surface, and is likely to be a minor issue. Drainage appraisal identifies up-hill side surface water collection and transfer to down-hill side.
Design parameter Ko provided for London Clay is on the low side	Calculated wall movement may be greater than currently quoted	Alternative approaches should be used in a sensitivity study at detailed design stage	Sensitivity study will be carried out during the detailed design
No monitoring of piezometers has taken place	No information available on how position of water table may change seasonally	Design makes worst case assumptions about location of water table and hence lack of monitoring is not an issue	Agree. Additional set of readings were taken in June 2011 and sent to Camden. These showed little change from the earlier readings, as expected.
There is a high risk of ground movement resulting in damage to adjacent structures	If conditions of 1a and 5 are 'good' then damage could be repaired.	Strongly recommend that condition of 1a and 5 be shown to be 'good'	The two buildings in question were inspected (see letters dated 5th August 2011). Both were found to be in good condition.

Table 2. **Further comment on slope stability**

6.27 The Burland scale (Ciria report C580) is considered an appropriate method of benchmarking the damage resulting to buildings from construction works. The CMS identifies the outcome of the work as likely result in damage of the 'negligible to very slight' categories on the Burland Scale. CPG4 sets out (para 2.30) that mitigation measures should be incorporated into the design "*if the identified*

consequences are not acceptable" such as "*where the predicted structural damage to neighbouring property is identified as being greater than the Burland category of 'slight'*", or "*where water ingress to neighbouring gardens or properties is predicted to be damaging to residential amenity".* In this case the proposals have shown that the initial assessment indicates "*negligible to very slight*" damage to neighbouring properties.

6.28 With the cooperation of the neighbours the applicant has carried out internal and external visual inspection of the properties at 1a and 5 Kidderpore Avenue. This summary was prepared in response to the Arup recommendation that a structural assessment of numbers 1a and 5 be carried out to better quantify the risks to such structures.

6.29 The applicant summarises the inspection findings as follows: *"Both structures are principally of solid masonry loadbearing walls with timber suspended floors and main roofs and are structurally sound, in good order and well maintained."* The applicant was shown drawings of underpinning work to the front of 5 and work to front boundary wall with number 3. The summary states that both buildings show signs of minor movement attributable to seasonal variations in the volume of underlying clay. It concludes that *"the inspection did not reveal anything that would contradict the general assessment of the possible effects of construction made in the BIA except at the location of the crack [within a fitted cupboard space in no 5], which already being 0.9mm at its maximum may open up slightly to be over 1mm wide and therefore become a "slight" crack in accordance with the terminology of the Ciria Report C580."*

Impact on structural stability: conclusion

6.30 CPG4 advises that "*The sides of excavation always move to some extent no matter how they are supported. The movement will typically be both horizontal and vertical and will be influenced by the engineering properties of the ground, groundwater level and flow, the efficiency of the various support system employed during the underpinning and the efficiency or stiffness of any support frames used*."

6.31 It is clear that the applicant will be required to work up the design to a final stage. As set out above Arup make recommendations in respect of some issues which remain to be addressed. However they comment that *"the alternative approach, and we do not recommend this be adopted, is that the planning submission include a fully worked up design."* Finally they state the following: *"Our recommendation is that an acceptable level of retaining wall movement and implied damage to adjacent properties be taken from the planning submission and that this be used post planning award as the basis against which an independent engineer will assess the developed scheme. We would also recommend that the development of the final scheme be carried out in a step by step process of agreement of parameters between designer and the independent engineer and then assessment of wall final design.*" The applicant has proposed that an independent third party expert be engaged, at their expense, to ensure that all structural calculations and final design are correct and would result in less than 'Slight' damage to neighbouring properties.

6.32 The applicant has gone to considerable length to address the requirements of policy DP27 as it has emerged and the Council's experience of dealing with basement applications has matured. It is considered that the applicant has undertaken a degree of structural design preparation and contextual investigation which is commensurate with the requirements of policy DP27. The information provided has been sufficiently detailed to allow Arup to comment in full on the design and identify potential shortcomings and recommendation for mitigation. It is therefore considered that the terms of DP27 (a) have been met by the proposals, subject to conditions and a S106 legal agreement to secure the mitigation measures recommended by Arup. These would require the applicant to engage a suitably qualified, independent third party structural engineering company to complete an assessment of the final design against the final set of technical evidence from the site and neighbouring properties, using the iterative method recommended above.

Impact on water environment : details submitted

6.33 Policy DP27(b) requires developers to demonstrate by methodologies appropriate to the site that their scheme avoids adversely affecting drainage and run-off or causing other damage to the water Environment. The assessment of impact on the water environment covers two key concerns: impact on surface flow and risk of flooding and impact on groundwater flow.

6.34 CPG4 sets out a list of the relevant streets at risk of flooding, as 'primary areas' (those that have been affected by both major floods in 1975 and 2002) and 'secondary areas' (those that have been affected by one of the major floods). In assessing the impact on surface water flow the applicant has addressed the surface flow and flooding screening flowchart in CPG4.

6.35 Appendix E of the CMS report acknowledges that the principal issue concerning ground water is ensuring that the drainage is carefully designed to ensure that adjacent properties are not affected. DP27 supporting text states that *"For basements that consume more than 50% of the garden space, and are considered otherwise to be acceptable, the use of SUDS will be required to mitigate any harm to the water environment."*

Impact on water environment: technical objections

6.36 Summary of technical points raised by Eldred

- Matter of surface water disposal not properly considered
- Difficult to see where SUDs can be incorporated on site
- Need to address potential for discharge to other properties and loss of large volume of groundwater storage

Impact on water environment (Arup assessment) :

6.38 Issues relating to the water environment are considered in the CPG4 screening flowcharts on surface flow & flooding and groundwater flow. The former identifies 5 tests and the latter 6 tests, relevant to the site and development context. Arup assessed the submission's response to the tests. Their conclusions and recommendations are set out in tables 3-4 below.

Surface flow and flooding flowchart tests (numbered s1-5)	Arup conclusion	Arup further comment	Applicant comment/follow-up
s1	Not relevant		
s2 (change to surface water flows)	Requires SUDs	To be confirmed at detailed design. No reason why surface water flows would be changed	Foul water will be stored on site as necessary in order to achieve matching discharge rate to existing
s3 (change in proportion of hard surfaced areas)	Impact of reduction of 165m2 of catchment area to be assessed	It is not clear whether rainwater form the new hard surfaced area will be discharged to a soakaway.	Reduced soakaway will be offset by incorporating soakaways in form of holding tanks and drainage mats. Perimeter land drains will also ensure final drainage does not exceed existing runoff.
s4 (impact of surface water on downstream properties)	Impact to be assessed	It is not clear whether rainwater form the new hard surfaced area will be discharged to a soakaway. Not likely to be a problem if drainage properly designed.	The soakaway design will ensure surface water flow to down stream water courses or neighbouring houses will not be materially changed.
s5 (change in quality of surface water downstream)	To be assessed. Preliminary risk assessment is low	Not likely to be a problem if drainage properly designed.	As per S3/S4 above.

Table 3: Surface water flow test summary

Groundwater flow flowchart tests (numbered G1-6)	Arup conclusion	Arup further comment	Applicant comment/follow-up
G1a & b	No report of significant groundwater on site. Drainage detail is proposed		Site is clay with c.600mm topsoil. Drainage design will collect water flow and allow it to discharge
G2	Impact to be assessed. Probably not significant and able to be resolved by drainage design.	Surface water concerns arising from proximity of Westbourne brook can be solved by drainage design. Surface drainage along the west wall of the basement would intercept surface flow.	See G1.
G3	Not relevant		
G4	Reduction in catchment area is to be mitigated by SUDs.		
G5	Impact to be assessed	Concentration of water soakaway in reduced area and impact on properties to the south to be addressed. Extent to which drainage arrangements may result in changes to volume of infiltration to the subsurface is not clearly acknowledged. Satisfactory solutions should be achievable providing issue is recognised.	Reduced soakaway will be offset by incorporating soakaways in form of holding tanks and drainage mats. Perimeter land drains will also ensure final drainage does not exceed existing runoff.
G6	Not relevant	6.	7.

Table 4: Ground water flow test summary

Impact on water environment: conclusion

6.38 Subsequent to the ARUP report the applicant submitted further drainage details which identify water catchment containers and the extent of the surface water holding capacity of the drainage mats which would cover the basement roof. The design allows for 3.63m3 of water retention in holding tanks on site, which is 180% more than required as per the calculations. The area calculated is based on the difference between the existing paved areas and the new ones.

6.39 Although Kidderpore Avenue is not identified in the CPG map as a street of historic flood risk nor is it identified as being in a flood risk area it is evident from local history, the site investigation survey and anecdotal evidence that there are water environment issues in the general area. The proposals acknowledge the potential local water issues and seek to minimise the impact on the water environment by implementing a drainage and SUDs scheme which would provide an improvement

over the existing rates of surface and foul water discharge to the sewer network. Furthermore they propose a drainage scheme which would direct groundwater from the north side of the basement to the south in order to minimise the impact on groundwater flow.

6.40 A condition would be added to secure the implementation of the proposed drainage and SUDs plans for the site as minimum measures, to include any additional drainage requirements identified during the detailed design phase. The condition would include a requirement for confirmation that the surface water runoff rate from the final detailed design would be less than the existing rate. Overall it is considered that the proposals include sufficient measures to mitigate any impact on the lower water conditions and address the terms of policy DP27(b).

Basement Impact: Cumulative effect

6.41 Policy DP27 (c) requires developers to demonstrate by methodologies appropriate to the site that their scheme avoids cumulative impacts upon structural stability or the water environment in the local area.

6.42 The area immediately in the vicinity of 3 Kidderpore Avenue is not known to be densely populated with basements and therefore the cumulative impact is not considered to be significant in this case. The basement at Westfield is cited as a local precedent of detrimental impact, however it is at least 90m to the North West and the basement at the application site is not considered to add to the cumulative impact on the hydrogeology in the immediate area in ways that would not be dealt with by the current proposals.

6.43 There is no suggestion that the structural stability of neighbouring houses has been effected by other basements in the vicinity. It is considered that the impact of this basement on the structural stability of dwellings in the immediate area would be addressed by the proposals.

Basement Impact: amenity of neighbours

6.44 DP27 (d) states that the council will consider whether basement proposals will harm the amenity of neighbours. Supporting text amplifies this by stating *“Many potential impacts to the amenity of adjoining neighbours are limited by underground development. However, the demolition and construction phases of a development can have an impact on amenity and this is a particular issue for basements. The Council will seek to minimise the disruption caused by basement development and may require Construction Management Plans to be submitted with applications. “*

6.45 The removal of the existing swimming pool structure in the rear garden has been approved at appeal and therefore the proposals would involve no significant above ground structures. Consequently the proposal will not have a detrimental impact on the current levels of daylight, sunlight and outlook of the adjoining properties. In addition, the proposals will not result in any loss of privacy to these neighbouring properties.

6.46 The basement itself would be visually low-key, with rear skylights (approx total c.10m2) in the middle of the lawn and a lightwell in the remote corner of the rear garden. There would be limited lightspill from the skylights. The original submission

included clerestory windows on the side elevations of the basement, set close to and well below the boundary fences, but these have now been omitted.

6.47 A noise survey was undertaken which established a lowest background noise level of 30dBa at the nearest noise sensitive premises. The Council's Environmental Health Team has assessed the methodology used for determining the lowest background noise levels and is satisfied that this is accurate. There would be a need for plant equipment to accompany the swimming pool and the applicant has clarified that the plant would be located under the front forecourt of the site, two storeys down and well away from the nearest sensitive windows. As the plant equipment has not yet been identified a condition would be added to secure details of any future noise generating plant which feature external breakouts, along with any necessary acoustic mitigation measures required to maintain the background noise level of 30dBa which has been established. The standard noise condition setting out the requirement to meet the Council's noise standards would also be added to any permission.

6.48 The operation of the car lift has been raised by a number of objectors. The applicant has stated that the car lift would be hydraulically operated and therefore very low acoustic impact. It would only be in use on occasion for short intervals and it is considered that it would not have a significant impact on the amenity of neighbours. In any event the noise implications of any plant used to operate it would be covered by the standard noise condition set out above.

6.49 As discussed below in the transport section of the report, it is recommended that a Construction Management Plan (CMP) is required as a head of term to the S.106. This will ensure that adequate control is imposed to ensure that the development would be carried out in a manner that minimises the impact on neighbouring properties and the public highway.

6.50 Overall it is considered that the impact on the amenity of neighbours resulting from the completed development is likely to be very low. The impact during construction would be mitigated by the CMP, secured by s106.

Basement Impact : Open space and trees

6.51 DP27 (e) states that the council will consider whether basement proposals will lead to the loss of open space or trees of townscape or amenity value. The submitted Arboricultural report indicates that the root protection zones for the nearest trees within and without the site have been taken into account.

6.52 An Ash at the front is the subject of a TPO. The basement would not encroach within the root protection area in order to allow for its retention. Within the rear of number 5 there are two Cypresses and a Hornbeam in close proximity to the boundary. The tree report states that they are approximately 2m from the existing swimming pool wall which drops to at least 3m below ground level. Therefore root development in that part of the site will have been prevented. The position of the swimming pool wall would be retained by the development ensuring no further impact on the tree roots. Furthermore the submitted proposals to include basement clerestory windows with a sloping soil profile towards the boundary have now been omitted and therefore it is considered that there would be sufficient soil present to

maintain the health of neighbouring trees. On the south boundary the omission of these windows would further ensure that future planting in the rear garden of 1a would not be detrimentally affected by the proposals.

6.53 In dismissing the appeal the Inspector did comment on the impact of the proposals in terms of existing and future trees the inspector concluded *"no technical information has been submitted to persuade me that the proposal would be unduly harmful in such terms"* A condition would be added securing a method statement for protecting the health of trees during construction.

Basement Impact: Landscaping

6.54 DP27 (f) states that the council will consider whether basement proposals will provide satisfactory landscaping and adequate soil depth (*'a minimum of 0.5 metres'* para 27.9) to enable garden planting.

6.55 The existing rear garden of the property is largely taken up by the pool house as well as hard landscaping (patios, steps etc.). The proposed development will significantly increase the amount of soft landscaping in the rear garden and therefore the biodiversity of the site. Officers are satisfied that the proposed soft landscaping to be constructed over the basement is viable, subject to a condition on the submission and approval of hard and soft landscape detail. The applicant has clarified that 500mm of soil depth would be provided above the basement.

6.56 The basement would retain margins along the boundaries, in particular an area of 4m depth from the rear boundary wall, 1m from the east boundary and 2m from the West. Overall the areas of retained soil depth are considered to provide sufficient space to allow future planting and trees of a scale which would complement the conservation area. A condition would be added to secure the planting of a tree in this location which would grow to a mature height of 10-15m. To the front the existing area of hardstanding would be reduced and an area of soft landscaping would encircle the new front lightwell.

6.57 Neither DP27 nor CPG4 are prescriptive in setting out maxima for basement development although DP27 acknowledges (para 27.9) that a single storey basement under the footprint of the retained building "*is often the most appropriate way to extend a building below ground*". Policy DP27 and CPG4 set out a series of criteria for establishing whether basements are appropriately scaled. Para 2.63 of the CPG states that *"Proposals for basement development that take up the whole front and / or rear garden of a property are very unlikely to be acceptable*.". This discussion of scale is expanded in the supporting text in the context of the need to provide *"Sufficient margins … between the site boundaries and any basement construction to enable natural processes to occur and for vegetation to grow naturally. These margins should be wide enough to sustain the growth and mature development of the characteristic tree species and vegetation of the area. The Council will seek to ensure that gardens maintain their biodiversity function for flora and fauna and that they are capable of continuing to contribute to the landscape character of an area*". The existing front and rear gardens are extensively hard landscaped. The proposals would result in the openness of the rear garden begin reinstated with the removal of the swimming pool. The front area would also see an introduction of soft landscaping currently not present.

6.58 In the context of the above CPG details it is considered that the depth of the side and end of garden margins which would retain sufficient growing medium to support growth of vegetation and trees. It would be sufficient to ensure that the basement does not preclude garden development which is typical of the area. The overall impact on the landscaping, front and rear, would be an improvement. It is considered therefore that the proposals do not constitute overdevelopment of the site in terms of the site capacity to support landscaping and tree growth.

Basement Impact: Appearance of the property or area

6.59 DP27 (g) states that the council will consider whether basement proposals will harm the setting of the host building or the area generally. Furthermore (i) (j) and (k) consider the impact of the proposed lightwells.

6.60 The outward appearance of the rear basement roof would be of outdoor garden space with a surface layer of grass. Manifestations such as skylights and lightwell have been limited and are generally located in inconspicuous locations around the perimeter of the garden at the rear where their impact will be limited. As such there is no objection to this element of the scheme in principle. To the front a small grille is proposed but this is not considered harmful to the appearance of the building. A car lift is also proposed on the front drive. When retracted this would have no visual impact, it is only the impact of it when it is up which is of concern. A condition would be added to require the lift be kept in its lowered position when not in use.

6.61 It is considered that the proposals would preserve the character and appearance of the conservation area.

Basement Impact: Archaeological remains

6.62 DP27 (h) expects basement development to take account of archaeological remains. The site is not in an area of archaeological importance and therefore this consideration is not relevant.

Basement impact: habitable rooms

6.63 DP27 states that "*The Council will not permit basement schemes which include habitable rooms and other sensitive uses in areas prone to flooding*" Although Kidderpore Avenue is not included in the CPG list of streets at risk of surface water flooding the nearby Kidderpore Gardens *is* included as being at risk. A number of local residents have also commented on local surface water flooding. The submitted application included two rooms identified as staff accommodation within the upper level of the two storey basement, however the function of these rooms has now been amended to general storage and staff changing area. A guest room at the front would be retained at the upper basement level, but this would be only a secondary habitable space and is not considered to be contrary to the policy aims of protecting the welfare of basement residents. It is considered that it would be unreasonable to refuse the application on the basis of this provision.

Basement impact: Conclusions

6.64 The basement proposals have evolved in both design (including omission of staff accommodation, removal of side clerestory windows, clarification of soil depth) and

have also been supported by greatly increased technical details. The proposals have evidence of and acknowledge the local hydrology and hydrogeological conditions and have sought to mitigate the impact through SUDs and drainage schemes. This report has not sought to provide a response to every technical objection raised by neighbours' experts however the design has progressed sufficiently far to enable the likely impact to be categorised both in quantitive and qualitive terms and for third party experts to comment on and assess the proposals against the DP27 requirements.

6.65 In allowing the appeal of the double basement case at 9 Downshire Hill, the inspector commented that in seeking to reconcile opposing professional views on matters such as relating to structural stability "*It is not proposed to determine absolutely who is right and who is wrong, but there is a need to conclude on the probability of the outcome*".

6.66 In summarising their findings in Arup have stated that "*the design presented is not a complete design. However, the work done demonstrates that a basement construction is possible and that the impact on adjacent structures is such that it should be possible to limit damage to repairable damage (maximum slight damage). The parameters used are not, in our view, a cautious estimate, they are closer to best estimate and as such the possibility for larger ground movements than currently predicted is possible. However, whilst not carrying out calculations to verify this with a parametric study, we would expect that a developed design should be able to accommodate a cautious estimate of ground parameters with modifications to construction sequence and size of wall elements to limit movements to similar values as currently shown."*

6.67 They conclude by stating "*Our recommendation is that an acceptable level of retaining wall movement and implied damage to adjacent properties be taken from the planning submission and that this be used post planning award as the basis against which an independent engineer will assess the developed scheme. We would also recommend that the development of the final scheme be carried out in a step by step process of agreement of parameters between designer and the independent engineer and then assessment of wall final design."*

6.68 The applicants have responded to any shortcomings that have been identified by Arup, as set out in the tables above. Arup have also made recommendations in respect of some of those concerns. Of some importance is the condition survey which was carried out on neighbouring dwellings. Although it was not an invasive survey, it did not identify any structural issues which would give rise to particular concern. Planning policy has no powers to require further off-site investigation and those matters would be dealt with as part of the Party Wall Act.

6.69 It is therefore considered that the applicant has met the terms of policy DP27 to an extent that is reasonable and sufficient to allow a determination of the application. Although some elements of the design remain to be completed, as is reasonable to expect of any planning application, these issues would not preclude the final design and construction of the basement as set out in the submitted documents and drawings. Arup's recommendations in respect of the process for completion of design, checking and iterative assessment by a third party would be secured by

S106. Overall it is considered that these measures would ensure that the development proceeds without undue risk to local or host building stability, water conditions or other considerations of DP27.

Lifetime Homes

6.70 The applicants have carried out a Lifetime Homes assessment on the proposed basement levels. The proposal includes lift access to all the proposed levels including level access from the car parking at basement level. The accommodation has been designed to provide sufficient space for adaption for wheelchair users. The proposals are therefore acceptable.

Transport: parking

6.71 The site is located on Kidderpore Avenue, north of West Hampstead town-centre. There is an existing crossover to the site with hardstanding to the front of the house to provide car parking. Access to public transport is poor (PTAL 2). The existing front area of the house provides car parking for a significant number of cars. In addition there are 2 garage spaces on site. The proposed development involves the creation of at least 2 parking spaces at basement level which will be accessed via a lift. The installation of the lift at ground floor level will remove one parking space from the existing front area; this will be replaced in the basement. The two existing parking spaces in the garage are being lost, as that area of the house will be used as a dining room. To ensure that the overall number of car parking spaces on the site is not increased an area of soft landscaping would be provided in the front garden. In addition, the proposal includes a grille which will be surrounded by soft landscaping. These elements of the proposed scheme will ensure that the capacity for parking to the front of the property is reduced and the overall capacity on site is not increased, it is therefore considered to be in compliance with the Council's parking standards.

Transport: Construction Management Plan (CMP)

6.72 The proposal involves the construction of a large double basement and the demolition of the existing pool house building. Given the scale of construction works and the large amount of earth excavation material to be removed from the site, there will be a significant impact on the local transport network so a Construction Management Plan is required.

6.73 The applicant has submitted a Construction Traffic Management Plan (CMP) which sets out details of site logistics, neighbour liaison and traffic management. The site would generate considerable truck movements, in particular during phase three of works which includes spoil removal. It is anticipated that the activity is likely to peak at 10 trucks per day. Under the terms of the CMP the contractor would be required to appoint a dedicated neighbourhood liaison officer and to register for the 'Code of Considerate Practice'. The space available on the site forecourt constrains the number of truck movements which will be possible on any given day. A traffic marshall would be available at all times to oversee and manage vehicle safety. There would likely be some impact, at least during early phases, on local on-street parking. This would be dealt with in the normal manner by the Council's street management service.

6.74 It is considered that the details to be secured by S106 legal agreement in respect of the CMP will be sufficient to ensure that the impact of the development is mitigated and managed to an acceptable degree.

Transport: Highways Works Immediately Surrounding the Site

6.75 In order to tie the development into the surrounding urban environment, a financial contribution would be required to repave the footway adjacent to the site and the existing vehicular crossovers. This work and any other work that needs to be undertaken within the highway reservation would need to be secured through the S.106. The Council will undertake all works within the highway reservation, at the cost to the developer. An added benefit of the highways works is that damage caused to the highway in the area of the proposed highways works during construction can be repaired.

6.76 A clause would be added to this head of term requiring plans demonstrating interface levels between development thresholds and the Public Highway to be submitted to and approved by the Highway Authority prior to implementation.

Sustainability

6.77 Policy DP22 (d) expects "developments (except new build) of 500 sq m of residential floorspace or above or 5 or more dwellings to achieve "very good" in EcoHomes assessments prior to 2013". The applicant has submitted an EcoHomes pre-assessment which sets out that this would be achieved. This would be secured by S106.

6.78 **Other issues raised by objectors**

- Due to the size and nature of the proposals, an EIA is not required by legislation.
- There have been works to trees including the removal of some trees on site since 2006; however as detailed in the history section, these works have benefited from consent. The Council has no record of unauthorised tree works being carried out on site.
- As detailed above in the transport section of the report, the Council's transport planners are satisfied that the impact of the construction can be dealt with under a construction management plan and do not consider that a traffic impact assessment is required.
- Utilities such as gas, electricity and water will be provided by the relevant companies; there is no evidence that a development of this size will result in a detrimental impact on the current supply.
- In commenting on the relevance of PPG 14 to the Downshire Hill appeal the inspector noted *"The land in the vicinity of the appeal site is not inherently unstable in the way that the guidance views former mining areas and the like, and almost any land can be made unstable, for example, by poorly supported excavations. Paragraph A52 accepts that movement needs to be taken into account in any development, but goes on to list possible causes of instability that do not appear to apply here. Hence it is reasonable to view the guidance as being of limited relevance to this appeal, subject to the advice in paragraph 42 regarding the adequacy of information*." It is considered that this view is directly applicable to this application.

7. CONCLUSION

7.1 When first submitted, the application was accompanied by no new technical evidence to support the refused proposals. The Inspector commented on this and found the content of the original submission to be deficient. Subsequently the applicant has provided considerably more technical evidence which set out quantitative and qualitative assessment of the likely impact of the proposals. These have been tested against the requirements of DP27 by Arup acting as third party assessors. The findings of the proposals are that at most 'Very slight' damage may occur to neighbouring properties. This is less than the damage predicted to neighbouring Listed Buildings at 9 Downshire Hill (being 'slight'). In allowing the appeal at the Downshire Hill Inquiry the inspector noted "*It is often the nature of adjoining development that the benefits are to the owner of the site while the adjoining owner experiences the effects with little or no benefit, and as a result, there may be cases where these effects are seen as harm by the adjoining owner. The Party Wall etc Act 1996 (and its forerunner in London over a lengthy period) exists separately from the planning system, to reconcile differences that adjoining development might cause. With this Act certain to be brought into play in the case of the appeal development, there is a need to determine the extent, if any, to which the effects are harmful".*

7.2 It is considered that the combination of

- safeguards to ensure iterative checking of final design details by a third party
- engagement of suitably qualified engineer to take responsibility for construction and
- the design proposals themselves

will ensure that the impact of the proposals are limited to an acceptable degree and that the concerns of the Inspector who dismissed that appeal for this site have been met.

7.3 Planning Permission is recommended for approval subject to a S.106 Legal Agreement with the following heads of terms:

- Construction Management Plan;
- Highways Contribution:
- Sustainability plan to include EcoHomes 'Very Good';
- Engagement of suitably qualified engineer to inspect approve and monitor all works
- Engagement of suitably qualified third party to independently check and advise on final design content
- Recovery of costs of Arup Independent assessment;

8. LEGAL COMMENTS

8.1 Members are referred to the note from the Legal Division at the start of the Agenda.

Appendix A: Chronology of events leading to this report.

No.	Date	Event
1	11th June 2009	Application to demolish the whole building and replace it with a double basement and 3-storey dwelling house was withdrawn by the applicant following concerns expressed by council officers (2009/0685/P and 2009/0686/C).
2	18th Sept 2009	Original applications (2009/4524/P & 2009/5076/C) received by Council.
3	20th April 2010	Applications refused by committee on grounds of insufficient information
4	29th June 2010	Application 2010/3432/p received by Council
5	1st July 2010	Application made for appeal of 2009/0685/P and 2009/0686/C (PINS ref **APP/X5210/A/10/2131296)**
6	26th August 2010	First detailed technical objection to current application received from Eldred Geotechnics and First Steps Ltd
7	13th October 2010	**Appeal decision issued**: CAC allowed subject to condition, PP dismissed.
8	18th November 2010	Camden publish ARUP guidance on basement development (second version published
9	13th January 2011	**9 Downshire Hill appeal decision issued by planning inspectorate**
10	20th January 2011	Applicant advised of further Basement Impact Assessment documentation required
11	20th February 2011	**Further documentation supplied** : Construction Method Statement and Consideration of Structural Stability Relating to Basement Construction in Conjunction with GCG Reports (by TWS)
12	23rd Feb – 16th March 2011	Re-consultation of additional information. Scheme. All previous respondees were notified by letter.
13	29th March 2011	Further documentation supplied in respect of SUDs
14	31st March 2011	Second detailed technical objection to current application received from Eldred Geotechnics dated
15	6th April 2011	**CPG4 on basements adopted**
16	3rd June 2011	Further supporting document received
17	12th May 2011	Arup engaged to assess submission against the requirements of CPG4 and DP27.
18	6th June 2011	Arup independent assessment of BIA received.
19	20th, 30th June, 8th August 2011	Further information received in respect of : SUDs (drainage and surface water flow) Drawing revisions to basement section, rooflights, staff accommodation Summary of condition survey of neighbours properties