

Address:	The Water House Millfield Lane London N6 6HQ		2
Application Number:	2011/4390/P	Officer: Charles Thuaire	
Ward:	Highgate		
Date Received:	22/08/2011		
Proposal: Erection of a new 2 storey plus basement dwellinghouse (Class C3) with garage, including associated green roofs and landscaping works, following the demolition of the existing dwellinghouse.			
Background Papers, Supporting Documents and Drawing Numbers			
<p>633(PL)- 000F, 001G, 003F, 004K, 005D, 010C, 011C, 013D, 014D, 015D, 020G, 021K, 022H, 023H, 201H, 202H, 301G, 302G, 303E, 900D, 901D, 902C, 903D, 904D; rear view bird's eye montage; rear view eye level montage; Design and Access Statement Revision D July 2013 by shh architects; 901/SK/019 P3, 020 P11, 021 P8, 022 P6, 023 P1; topographical survey 14624-01-P dated 8.8.14; drainage plans 2391-SKPH01A, 02D, 03B, 04F; mechanical service plans 2391-SK02A, 03A, 04A, 05A; Planning Statement dated August 2011 by dp9; Statement of Community Involvement dated August 2011 by dp9; Lifetime homes assessment report by shh; Code for Sustainable Homes Pre-Assessment dated 26.10.11 by Price and Myers; Energy Statement dated August 2011 by swp; Environmental Noise Assessment rev A dated 18.11.15 by Paragon; Arboricultural Impact Assessment Report and Outline Method Statement rev 02f dated 15.12.15 by Landmark Trees; Preliminary Ecology Assessment dated 3.2.15 by MKA Ecology Ltd, Bat inspection report dated 20.8.15 by MKA, Nocturnal bat survey report dated 21.8.15 by MKA; Construction Method Statement Revision L dated December 2015 by Motion; CBR readings ref GE15068- plan and tables dated 30.11.15, letter on CBR test results dated 1.12.15 from Motion; Comment and observations on hydrological impacts of development - updated June 2011 by Haycocks; letters dated 25.7.11 and 15.2.13 from HRW, letter dated 15.2.13 from Haycocks, letters dated 21.5.14 and 13.10.14 from RSK; Geotechnical, Hydrogeological and Geo-environmental Site Investigation Report ref 241830-01(00) dated February 2011 by RSK; Basement Impact Assessment ref 26128-01(00) dated January 2013 by RSK; responses to CGL review of BIA dated 19.5.14 and 22.7.14 by HRW; surface water drainage note 14.5.14 by swp and attached microdrainage calculations; CGL independent reviews of BIA ref CG/08726 dated 7.2.14, 22.7.14, 10.6.15; emails from Richard Ball of CGL dated 16.6.15, 2.10.15, 25.2.16; emails from Tom Horne dated 6.12.15 and 8.2.16 plus swp annotated plan ref 633(SK)001A (regarding drainage); statutory declaration by Simon Moore dated 21.1.11 (regarding access rights).</p>			
RECOMMENDATION SUMMARY: Refuse planning permission			
Related Application Date of Application:	22/08/2011		
Application Number:	2011/4392/C		3
Proposal: Demolition of the existing dwellinghouse.			

Background Papers, Supporting Documents and Drawing Numbers

633(PL)- 000F, 001G, 003F, 004K, 005D, 010C, 011C, 013D, 014D, 015D, 020G, 021K, 022H, 023H, 201H, 202H, 301G, 302G, 303E, 900D, 901D, 902C, 903D, 904D; rear view bird's eye montage; rear view eye level montage; Design and Access Statement Revision D July 2013 by shh architects;

RECOMMENDATION SUMMARY: Refuse conservation area consent**Applicant:**

Mr Munford
C/O Agent

Agent:

DP9
100 Pall Mall
London
SW1Y 5NQ

ANALYSIS INFORMATION**Land Use Details:**

	Use Class	Use Description	Floorspace
Existing	<i>C3 Dwelling House</i>		<i>490m²</i>
Proposed	<i>C3 Dwelling House</i>		<i>1025m²</i>

Residential Use Details:

	Residential Type	No. of Bedrooms per Unit								
		1	2	3	4	5	6	7	8	9+
Existing	<i>House</i>				1					
Proposed	<i>House</i>				1					

Parking Details:

	Parking Spaces (General)	Parking Spaces (Disabled)
Existing	<i>At least 2</i>	<i>0</i>
Proposed	<i>2</i>	<i>0</i>

OFFICERS' REPORT

Reason for Referral to Committee:

This application is being reported to the Committee as it entails demolition of a building in a conservation area (Clause 3v) and due to it being a very sensitive case with much local interest which warrants consideration by the Committee (Clause 4).

1. SITE

- 1.1 The property is L-shaped comprising a 2 storey house with pitched roof and substantially glazed southern facade plus a long single storey flat roofed front wing accommodating a swimming pool. It was built in the 1960's and later remodelled in the 1990's. It has extensive grounds including various trees, lawns, ornamental pond, timber shed and a separate studio building on the northern side near Fitzroy Park. It is surrounded by high timber fences and is not readily visible from adjoining roads, with only the top of the gable and roof ridge visible above the fence on Millfield Lane. The site is approx. 0.21ha in size and has a sloping topography in both NE-SW and NW-SE sections but notably the former as Fitzroy Park is higher than Millfield Lane.
- 1.2 The site lies between Millfield Lane and Fitzroy Park, both private roads; its access is unusual in that it is the only site in this area which has its vehicular access solely from Millfield Lane but also has pedestrian access from Fitzroy Park via a narrow footpath between nos. 51 and 53. Millfield Lane is a narrow rough surfaced trackway which is jointly owned by the City Corporation and residential frontagers. Opposite the site's vehicular entrance here is the entrance to the Kenwood Ladies Pond. The Lane and the Pond are surrounded by significant woodland and tree cover.
- 1.3 Neighbouring properties along this Lane include- Wallace House to the west, with a similar style, shape and size to Water House; 55 Fitzroy Park to the east, a 1970's house set within very large grounds and with a very large pond immediately adjoining Water House; Fitzroy Farm at the western end of the Lane, a contemporary designed substantial 3 storey house recently built following permission in 2010.
- 1.4 The area between Fitzroy Park and Millfield Lane is characterised by a variety of houses in different styles, forms and sizes in a variety of irregular sized and shaped plots. All the houses here are post-war and uniquely designed. To the north along Fitzroy Park are 'Dormers', a large 2 storey house with significant pitched roof and side wings; no.51, a modern 2-3 storey house with glazed southern façade, recently built following permission in 2009 and which has won architectural awards; no.53, recently demolished and awaiting redevelopment following permission for a new larger 3 storey house in 2012; there is also a current undetermined application for an alternative larger design here (ref 2015/0441/P). The sites have large gardens and significant tree cover. Water House is not visible from the Heath due to extensive tree cover, although some of the neighbouring properties, notably those on the north side of Fitzroy Park and others scattered around the fringes of the Heath, can just be seen.
- 1.5 The property is located in the Highgate conservation area, is not listed nor a positive contributor to this area. The site, along with all the others between Fitzroy

Park and Millfield Lane (except Dormers and Fitzroy Lodge), are designated Private Open Space (POS). Hampstead Heath lies on other side of the Lane and is also POS as well as Metropolitan Open Land (MOL). Adjoining Millfield Lane on the Heath are the series of five Highgate Ponds.

2. THE PROPOSAL

Original (November 2011)

- 2.1 Erection of a new 2 storey plus basement dwellinghouse (Class C3) with garage, including associated green roofs and landscaping works, following the demolition of an existing house.

Revision 1 (July 2013)

- 2.2 Revised plans and Design&Access Statement (rev D July 13) to omit basement spur section and update plot ratio analysis; revised arboricultural report (June 13), Construction Management Plan (CMP) (rev h Mar 13), Basement Impact Assessment (BIA) (Jan 13)

Revision 2 (June 2014)

- 2.3 Revised BIA (May 14)

Revision 3 (April 2015)

- 2.4 Revised BIA (Oct 14), CMP (rev i Nov 14), arbo report (Dec 14), ecology report (Feb 15); revised plans for car turntable

Revision 4 (December 2015)

- 2.5 Revised arbo report (Dec 15), bat reports, CMP (rev l Dec 15), new 'CBR' data for Lane, revised drainage plan; revised plans and montages showing extended driveway, omission of roof overhangs, relocated plant enclosure; revised acoustic report

3. RELEVANT HISTORY

- 3.1 26.7.90- pp granted for erection of a two storey detached dwelling house, garage and new access (at Fitzroy Farm Cottage).
- 3.2 21.7.94- pp granted for remodelling of the front and rear elevations plus erection of a one-storey extension at ground floor level to provide a swimming pool (at Fitzroy Farm Cottage)(designed by Paxton architect).
- 3.3 23.5.08- planning and CA consent applications submitted - (2008/1303/P, 1396/C) for Demolition of existing 2 storey dwelling and single storey swimming pool building, and replacement with new dwelling with accommodation over basement, ground and first floor levels with single room located within roof space at second floor level. (house designed by Adam architects). Withdrawn 13.9.09

4. CONSULTATIONS

Note- for Revisions 2, 3 & 4- emails were only sent to 12 interested parties (including immediate neighbours at Apex Lodge, Wallace House, 49 & 55 Fitzroy Park, plus FPRA, Ladies Pond Assoc, Highgate Society, City of London)

Statutory Consultees

- 4.1 English Heritage- do not wish to make representations regarding demolition in conservation area.

Conservation Area Advisory Committee

- 4.2 Highgate CAAC- object-

Original:

CMP based on wrong assumption that spoil from basement excavation will be used on heath dam works which is no longer the case; various other 'serious reservations' (not clarified).

Revision 1:

Fringes of Heath very sensitive and liable to damage from inappropriate development, house by acclaimed architect in a group by same architect causes damage to conservation area, excessive size increase by 34%; cumulative impact with proposed basements at nos 51 and 53 Fitzroy Park, impact on water draining into heath ponds not dealt with; impact on veteran trees' crowns and roots; CMP harms conservation area by tree pruning, cut back vegetation, damage to trees on heath, will not get consent from landowners, danger to pedestrians on Lane, difficult manoeuvring at Merton Lane junction, Lane is too narrow.

Revision 2: no consults

Revision 3:

no improvement from previous versions, comments on CMP- Lane too narrow for construction traffic, inadequate safety measures for pedestrians, appeal Inspector concluded on Fitzroy Farm decision is still relevant, no agreement reached with City, more CBR readings needed near veteran oak trees, alternative access to heath not possible as Lane provides only access to Ladies Pond, disturbance to public highways of Millfield and Merton Lanes.

Revision 4:

- demolition of the Water House and its replacement by the new dwelling proposed will neither preserve nor enhance the Conservation Area;
- increase in floor area and decrease in open space is unacceptable, no matter how the figures are manipulated;
- damage to Metropolitan Open Land from the building operations and from the runoff of ground water cannot be countenanced;
- damage to trees including valuable veterans cannot be sufficiently mitigated;
- Health and Safety concerns created by the use of lane by heavy construction traffic can only be avoided by a much smaller and more modest scheme.

Local Groups

- 4.3 Heath and Hampstead Society object-

Original- no response

Revision 1:

Use of Lane by construction vehicles, widening it and improving surface destroys rural informal character, harm Fringes of Heath, damages trees, danger to pedestrians and cyclists; completely unacceptable, sets nasty precedent for other fringe area developments.

Rev 2: no consults

Rev 3: no consults

Revision 4:

CMP: harmful impact on users of country lane and wildlife by HGV's; no swept path analysis given for HGV's- new City evidence shows HGV's cannot reverse into site without widening lane onto City's land or removing trees; measures to prune vegetation cannot be done without frontagers' consent; permission should not be granted due to flawed CMP; restricting public access to lane and heath for 2 years is unacceptable.

BIA: proposed drainage into non-existent drain will cause flooding of lane and pollution of Bird Pond.

Trees: conflicting CBR data from City, impact on trees' crowns and roots along lane from HGV's.

Plot ratio: omission of gym under bund is misleading in footprint ratio analysis, real figure is double that of local average.

4.4 Highgate Society- object-

Original:

Excessive size for area, premature to demolish house and build on 'generous garden' that both contribute to Conservation Area character;

Hydrology issues- diversion of watercourse by basement, underground spring under house feeds nearby ponds, criticism of drainage strategy, fin drains ineffective, risk of pollution, cumulative impact of other basements in area;

CMP and access issues- unjustified estimates of traffic, pollution to water and air quality, risk to pedestrian safety on narrow lane, significant delays to construction programme due to vehicle stoppages to allow pedestrians to pass, damage to road surface, detailed criticisms of CMP, unreasonable scale of development on private lane partly owned by others;

Impact on trees, no ecological impact assessment;

Statement of Community Involvement unresolved- unreasonable that interest of individual developer can override public interest on POS, MOL and Heath in terms of level of disruption.

Revision 1:

Unsuitable overdevelopment on extremely sensitive site; impact of basements on hydrology and ecology as site is above underground watercourse feeding no.55's pond and Bird Sanctuary Pond, BIA inadequate with complexity of geology and uncertain effects; construction will damage roots, surface of Lane and pollute ponds by leaching of oil; video shows that HGV has difficulties in access and hinders public access to heath and ponds; doubling of footprint to 34% is overdevelopment on private open space and next to MOL, damaging precedent for Fringes of Heath sites and conservation area.

Rev 2: no response

Rev 3: no response

Rev 4: no response.

4.5 Fitzroy Park Residents Association- object-

Original:

Demolition of house contributing to CA; overdevelopment of POS and next to MOL, scale affects construction access and implications for CMP;

CMP has sole access on Lane, volume of traffic and danger to Lane users, underestimation of HGV/LGV's, no agreement with Lane owners;

Hydrology- threat to flow of groundwater to ponds, flooding risk and water contamination, issues raised by Haycock unresolved.

Revision 1:

Demolition of house unjustified as it is sympathetic to area, proposed house scale excessive (2-3 times more than existing) and conflicts with open space policy; significant flaws in CMP (volume of excavation, traffic volumes, traffic management, damage to properties, public safety, parking, inadequate mitigation measures), scale of house needs reducing to make CMP workable, width of Lane too narrow (see video), safety issues at junction, note previous appeal decision; very damaging effect on groundwater and stability, BIA inadequate on slope stability, groundwater flows and cumulative impact with other basements, site is on a watercourse; extensive damage to environment, mature trees and Lane; ineffective consultation contrary to claims.

Rev 2: no response

Rev 3: no response

Rev 4: no response.

4.6 Kenwood Ladies Pond Association- object-

Original:

Safety hazard to users of Lane and entrance to Ladies Pond; underestimation of lorry movements; impact on rural quality of Lane; noise, dust and flooding; circumstances unchanged since last Inspector decision on Fitzroy Farm appeal.

Revision 1:

CMP issues: no longer peaceful lane, not wide enough for lorries and people, peace and tranquillity destroyed by noise, previous Fitzroy Farm appeal scheme which also proposed use of Lane was rejected, dangerous to mix vehicles and pedestrians, numerous lorry movements making it busy thoroughfare, hazard by vehicles turning at entrance to Pond, no need for surface improvements and vegetation clearance to Lane, dust and water contamination to Pond, noise and intrusion to Pond users.

Rev 2: no response

Revision 3:

objections as before, plus- inadequate and misleading CMP, emergency procedures unworkable.

Revision 4:

objections as before- unauthorised vegetation clearance has now happened to detriment of lane, conflicts between construction traffic and pedestrians, compaction of road surface and roots, turning area at entrance is unacceptable and dangerous, Fitzroy Farm appeal decision still relevant here.

4.7 Highgate Mens Pond Association- object-

Revision 1:

Unsuitable use of Lane by HGV's, safety issues, video shows difficulties of HGV accessing lane, removal of vegetation hams rural character, impacts on water quality of ponds, construction nuisance and noise to heath and pond users.

4.8 Hampstead Heath Winter Swimming Club- object-

Revision 1:

Unpredicted effect of 2 basements on hydrology and ponds; use of lane by HGV's obstructs use of Lane by pedestrians, scale of development out of proportion.

Other bodies

4.9 City of London- object

Original: *object with video of test drive down Lane by HGV-*

House contributes to character of conservation area and demolition will harm this; replacement house also harms area by excessive scale and bulk with increased site coverage from 15.6% to 25.5%, unacceptable on POS and adjoining MOL.

Detailed criticisms of arbo report, including its inadequate reference to veteran oak tree which needs special protection and its lack of reference to neighbouring hornbeam.

Detailed criticisms of CMP by Baxter consultants- underestimates proposed vehicle movements and existing pedestrian movements along Lane; overestimates width of Lane, insufficient load bearing capacity of Lane, scale of impact of construction traffic, damage to trees and surface of Lane, no rights by applicant to use parts of Lane or damage its surface, video commissioned by City shows problems of access along Lane by a HGV; errors on consultation with locals; safety risk to pedestrians on Lane by heavy use by construction vehicles; insufficient width of Lane for access and manoeuvring; numerous detailed queries and criticisms regarding demolition and construction programme, drainage proposals, estimation of all vehicle (including LGV) movements, contractor parking, cumulative impact with other construction sites, dust/noise/water control, pollution, travel plan, mitigation measures, proposed changes to surface and vegetation of Lane. Detailed criticisms of BIA by Haycock consultants- 3 key issues need to be resolved: potential interruption of ground water flows downhill and across site and risk of flooding to neighbouring properties; contamination risks especially to pond at no.55 and bird sanctuary pond downstream, given previous history of impacts here; slope stability issues with 2 neighbouring houses.

Revision 1: *object with consultant reports on trees and BIA-*

Still have serious concerns at inadequacies and discrepancies in documents provided; gross overdevelopment of site, fails to address adequately access, hydrology and environmental issues including relationship with Heath, Ladies Pond and Lane. Previous objections still stand.

Plot ratio- comparison study misleading, proposed house above average for area; new house harms conservation area by its scale and bulk.

Trees- survey provided of veteran trees in area which need protection and considered vulnerable to damage by root compaction and pruning, oak tree should be protected by TPO, concern at proposed works to specific trees (oak, hornbeam, beech, apple);

impact of pollution on ecology of heath and bird sanctuary pond.

CMP- has serious errors and flaws, topographical survey provided of Lane which shows that it cannot accommodate lorry and pedestrian movements, CMP underestimates volume of excavation material and overestimates capacity for onsite storage.

BIA- reviewed by Baxter engineers (Oct 2013) has number of detailed concerns still not adequately addressed- temporary kingpost retaining wall on boundary with 49 Fitzroy Park unacceptable, fin drainage system unacceptable, misleading drainage plans, surface water disposal system increases water into sewer and reduces groundwater supply to ponds, possible flooding in ponds during construction, excess groundwater diverted to sewer unacceptable and affects balance of groundwater in area, does not properly address cumulative effects, contrary to policy DP27.

Recommends refusal on grounds of- dominant bulk and design harmful to open space and conservation area, lack of sustainability measures, lack of robust CMP, lack of adequate provision for pedestrian safety.

Revision 2: object with revised consultant report on BIA-

Many of previous objections remain unresolved, still serious concerns at impact of construction vehicle use of Lane and impact of development on conservation area, previous 2 reports by City not addressed by Council (regarding impacts on open space, conservation area, trees, ecology, access and ped safety, hydrology and geology). See below for details of BIA review by Baxter.

Revision 3: object, with consultant reports on CMP, BIA, ecology, trees-BIA (revised critique by Baxter, April 15) – detailed criticisms of updated information regarding boundary structures and ground movement analysis including conservative predictions of movement arising from new boundary construction- concern that there remains a significant risk of movement of retained boundary and damage to 49 Fitzroy Park; proposal to drain groundwater into soakaway will be ineffective as it is in London Clay, thus will discharge flow into gravel trench under lane and onto adjoining Heath (which needs City consent) and will result in overland flooding to Bird Sanctuary pond and associated pollution risks; impact on flows to pond at no.55 which could dry up; no meaningful consideration of cumulative impacts of all existing/proposed basements. City confirms that no agreement to discharge water onto heath and ponds will be possible.

CMP (critiques, Feb and April 15) - CMP needs revising to provide further details on following issues- implications of vehicle access for soil compaction and surface structure and for water contamination, level of all construction vehicle movements, level of materials stored on and removed from site, safe access to site by full range of construction vehicles, review of access taking account of widths and safety of other users of Lane, access by vehicles and manoeuvring on site with no reversing along lane.

Ecology- ecological report is flawed as done in winter, fails to address wider impacts on heath, such as contamination of ponds, severance of drainage lines, pollution and vibration by construction vehicles.

Trees- compaction damage of tree roots under Lane, failure to recognise veteran and significant trees (oak and hornbeam) and their roots in report, no recognition of ecological benefits of trees; impact on landscape character of Lane and Heath.

Revision 4: object as before, with consultant reports on CMP & BIA-

BIA (critique by Baxter, Jan 16) - proposed groundwater drainage into a soakaway would be ineffective (being in London Clay) thus will discharge flows onto the adjoining Heath and result in overland flooding to the Bird Sanctuary pond. City has never agreed originally proposed gravel trench under Lane nor will it give consent for any such discharge onto their land. New alternative with no trench is still unacceptable and scheme's drainage strategy does still need an overflow pipe to ensure it drains into the Bird Sanctuary pond; will result in overflow across the Lane and cause flooding onto heath or no.55. Disputes conclusions of supplementary documents, states there is no drainage ditch and the other built soakaway does not work properly leading to groundwater flows across the Lane. Disputes the effectiveness of onsite attenuation systems, which are also unacceptable due to being within RPA of oak tree. Maintains objections to proposed kingpost retaining wall.

CMP (critique, Jan 16) - still unresolved issues arising from previous objections, continuing health & safety risks to users of heath; omissions in CMP fail to consider cumulative impacts of soil and root compaction, hydrology and water contamination; more detail needed on LGV movements, on safe access by full range of all vehicles, and on turning manoeuvres. New California Bearing Ratio (CBR) tests done along Lane which demonstrate that the levels of construction traffic proposed is highly likely to result in degradation of Lane's surface and lead to

damage and compaction of subsurface, potentially impacting on root zones- of 9 CBR test results, 7 give low figures which suggest that mitigation measures are needed to strengthen road surface and protect tree roots.

Trees- despite welcome changes to arbo report which now recognises T5 oak as a veteran tree, this is not reflected throughout report in terms of required levels of protection; risk and stress to veteran trees by heavy traffic along poorly surfaced lane; need to protect wider landscaped character of lane.

Adjoining Occupiers

	Original	R1	R2	R3	R4
<i>Number of Letters Sent</i>	16	29	12	12	12
<i>Number of responses Received</i>	41	187	2	29	20
<i>Number in Support</i>	0	1	1	0	0
<i>Number of Objections</i>	41	186	1	29	20

Plus site notices/press adverts for original, R1, R3, R4 dated 4.11.11, 5.9.13, 17.4.15 and 6.1.16.

Original:

- 4.1 8 neighbours (Wallace House, Sunbury, Apex Lodge, 49 & 55 Fitzroy Park) object- disproportionate size, existing house adequate for family; previous rebuild of Water House led to damage of pond, trees and ecology at no.55, damage to property walls and Lane by traffic; risk to hydrology by basements, past flooding experience and flows of water to heath and ponds; potential pressure for future Lane improvements with tarmac and lighting, impact on Heath visual amenity, no consent given by frontagers to proposed improvement works to Lane, safety risks, views of residents ignored despite claims by CMP, query on how CMP will be enforced, cumulative impact with construction of other houses nearby, unacceptable damage, risks and disruption by construction vehicles using Lane daily for 2 years.

Detailed criticisms by Wallace House and consultant- size and scale still excessive despite pre-app revisions, overdevelopment leads to other issues; discrepancies on footprint areas submitted, garage only 1.5m away from boundary and below ground levels unresolved and unacceptable, tree impacts on boundary unresolved, risk of manoeuvring vehicles outside their entrance.

Detailed criticisms by 49 Fitzroy Park and consultant-
 -numerous inadequacies and discrepancies in documents, no cross-refs between them; significant unresolved hydrological and CMP issues, application is premature and cannot be agreed with conditions, fails numerous policies; criticisms of pre-app consultations by applicants, no full engagement by neighbours;
 -unacceptable loss of house by eminent architect, no justification for demolition; house similar in scale to Fitzroy Farm yet on plot 3 times smaller, 30% site coverage gross overdevelopment; harms POS, MOL & CA; more dominant and imposing house, sets precedent for area; unclear impact of plant on appearance; sustainable homes level 3 inadequate;
 -proposed house will create a dam across whole site interrupting groundwater flows; endorses concerns raised by Haycock on BIA (interruption of groundwater flows, contamination risks, slope stability issues); criticisms of drainage strategy with holding tank for excess groundwater flows, impact on neighbouring houses

and ponds, risk of perpetual damage to them, fin drains impracticable and unreliable; slope stability issues; considers that geology of site is actually on Claygate Beds (clay with silts, sands and gravels) rather than London Clay, that the border between both is on site not uphill as assumed by official maps and BIA, and that these beds have unpredictable permeable layers and groundwater;
-no consent given by owners of Lane (Apex Lodge, Fitzroy Lodge, no.55 and City) to any enabling works proposed by CMP; clarity of spoil calculations needed; criticism of CMP figures (lane width, vehicle movements etc), vehicle movements unsafe and unworkable, risk to users of lane;
-loss of trees, significant crown works harm amenity value of trees and neighbour amenities; no assessment of impact on retained trees on and off site (eg. neighbours' beech and mulberry) by regrading and construction works, no assessment of impact on veteran trees along lane.

4.2 32 residents/Heath/pond users (including 20+ Ladies Pond swimmers)- visual and noise intrusion, impact on users of Lane, safety risks; impact on rural atmosphere, noise, pollution, traffic; impact on trees and ecology; impact on Pond water quality and levels.

4.3 Maya deSouza (Ward Cllr in 2011) – demolition unsustainable and environmentally damaging, affects water flows into Ladies Pond, CMP issues of traffic movements and pollution, size unacceptable on MOL.

Revision 1-

4.4 186 object (including 8 immediate neighbours at Sunbury, Kenbrook, Apex Lodge, Fitzroy Lodge, Wallace House, 49 & 55 Fitzroy Park; 37+ users/members of Kenwood Ladies Pond):

Bulk/design- no reason to replace adequate and sound dwelling which is unobtrusive and architect-designed, bulk out of character, overdevelopment bordering sensitive open space, double of size in sensitive area, increased footprint, change in ambience to a densely built up area, disproportionate scale with basement excavations which lead to other problems, proliferation of unsympathetic developments in area, impact on trees, architecture unsuitable for area, occupants likely to be absent most of year thus no benefit to area, 'if owners want more space, they can move elsewhere'.

BIA- problems already experienced with Witanhurst uphill leading to subsidence and flooding, very sensitive geology thus no 'acceptable level of risk' is possible here, groundwater flows affected with flooding and damage to properties, 2 basements catastrophic on hydrology and ecosystem, water contamination, hydro report notes that water was found in boreholes and needs more investigation, cumulative impact of basements needs assessing; erroneous reports should not be used, proposed rear embankment regrading may impact on land slippage and drainage into pond at no.55, many unanswered questions on hydrology.

CMP- revised CMP essentially same as before, lack of proper consultation since original submission despite claims by applicants, analysis of traffic movements is wrong, access along Millfield Lane is underestimated, Lane too narrow, excessive number of frequency of lorry movements, impact of HGV's on cyclists, Lane heavily used by Heath and Pond users (pedestrians, baby buggies, joggers, dog-walkers, cyclists), no room to pass construction lorries 2.5m wide (only 1.25m left to squeeze past), dangerous mix of pedestrians and lorries, serious health and safety issues, City video shows difficulties of HGV fitting into this lane with no room for

people to pass ('seriously get a grip!!'), regular users of Ladies Pond affected, dangerous turning movements at entrance to Pond, blocking of emergency access to Pond, construction noise and works to Fitzroy Farm scheme were intrusive to Ladies Pond, caused disruption to Lane and used up all free parking spaces; past subsidence at Apex Lodge required underpinning thus use of Lane will damage foundations further, damage to foundations of neighbours and sewers, vibration to boundary walls of Fitzroy Lodge, Apex Lodge and no.55, harm to tree roots and lane surface, removal of trees, impact on drainage and waste into ponds; pruning and resurfacing will require consent from City, no consent given from frontagers to clear vegetation and verges to ease access by vehicles, 'improvements' to Lane and traffic will destroy its quiet rural ambience and surface, natural beauty and environment at risk, pollution to ponds' water quality and noise and dust, 'public should not suffer at expense of one greedy developer', Council should not allow such profiteering on site, Lane is haven of peace, rural charm and wildlife that will be destroyed, risk of ruining environment forever, noise, fumes, obstructive parking, impact on water table and water flows into ponds, damage to vegetation and wildlife; why not use existing access from Fitzroy Park? Previous scheme for Fitzroy Farm involving use of Lane was rejected by appeal inspector, existing Water House was constructed via Fitzroy Park and Bowling Club carpark, support City objections, need bond with Council to secure compensation for damage.

Maya deSouza (Ward Cllr in 2013)- demolition of good house, overdevelopment by increased size to double of average in area; basements affect sensitive hydrology, creating dam and diverting groundwater and leading to flooding; CMP does not demonstrate safe way to access site, Lane is not wide enough, danger to peds, Fitzroy Farm appeal rejected due to impacts on Lane; risks to neighbouring walls; loss of biodiversity, harm to tree roots.

More detailed reports from 2 adjoining neighbours:

Wallace House- query footprint in DAS, plot ratio calculations misleading and estimated to be greater at 34% of site thus overdevelopment, disingenuous not to include gym under bunker in measurements; insufficient screening between both houses with new house only 1.5m from boundary; excavations will undermine fence and vegetation thus submerged garden is unresolved and unacceptable; arbo report inaccurate and inadequate, no assessment of boundary trees; CMP means parking and manoeuvring outside garage entrance thus blocking access here, swept path analysis inadequate thus risk to people and vehicles.

49 Fitzroy Park- little change since original submission despite claims by applicant; numerous detailed criticisms including the following issues-

- a) excessive quantum of building for site- doubling existing footprint and plot ratio for site and double of average ratio figure (17%) for locality (cf. recently approved Fitzroy Farm is similar size but much larger plot), under-estimation of plot ratio by omitting gym/spa area;
- b) no justification for demolition- house has individual and group value and has important relationship as part of trio of houses built by Paxton;
- c) cumulative impact on trees- harmful impact on trees along Lane including proposed pruning and root compaction by HGV's, change in rural character of Lane; does not address cumulative impact on trees on site especially veteran oak at front;
- d) BIA inadequate, incomplete and flawed- does not consider risks of slope stability along neighbour boundaries, drainage design flawed and will result in flooding, no cumulative impact study to address other nearby basements; Baxter report

disagrees with BIA conclusions that no harm will be caused;
e) CMP deficient and unworkable involving access along Lane- video by City shows that swept path studies are impossible to achieve, survey shows that most of Lane is not able to provide minimum 1.2m safety zone for pedestrians alongside HGV's, no safe physical separation of vehicles from pedestrians, use of Lane by Fitzroy Farm development refused by appeal Inspector for same reasons of risks; construction phasing unworkable, no analysis of where spoil will be stored, no quantification of LGV's or consideration of proposed parking by contractors; crucial questions remain unanswered, flawed information by applicants (eg. HGV numbers and pedestrian counts on Lane; over-estimation of Lane width and true ped refuges).

BIA critique by Baxter (Oct 13) submitted from City and 2 neighbours (see City objection above for summary of concerns).

4.5 51 Fitzroy Park- *supports* scheme

Revision 2-

4.6 Cllr Sian Berry- supports all other views, notably- excessive size and bulk of new house; BIA defective as reviewed by Baxter; arbo report defective; no assessment of cumulative impact; contrary to numerous LDF policies; serious concerns at CMP inadequacy, HGV movements too high and underestimated, Lane too narrow, damage to road surface and tree roots; Members of DCC need to do site visit to see Lane and setting.

4.7 Neighbours at Wallace House and 49 Fitzroy Park- criticisms of BIA and arbo reports, as noted in submitted critiques below; comments on inaccurate surveys in BIA of neighbouring properties; requests ecology study and CBR tests along Lane.

BIA revised review by Baxter (June 14) - detailed criticisms need resolving: runoff rate into combined sewer excessive for new developments, discharge of groundwater to heath via gravel trench under Lane may impact on sanctuary pond and will need consent from City, surveys of boundary incomplete and inaccurate, damage to 49 Fitzroy Park not adequately considered and will cause damage higher than estimated to boundary and possibly pool plant room, impact on swimming pool underestimated and could be unacceptable category 2, no consideration of other boundary structures, kingpost retaining wall inappropriate, unknown impact of fin drain, possible contamination from surcharging sewer.

Arboricultural report review by MacQueen (July 14) – flaws with arbo report, BIA and CMP, eg. not including offsite trees and underestimating their RPA's; construction harmful to trees on boundaries screening site, such as veteran oak trees along lane, urbanisation of rural character of lane; unacceptable impact on beech at 49 Fitzroy Park and mulberry at Wallace House due to soil disturbance, root severance and root loss; deep excavations will destabilise beech, vehicle movements will compact roots in RPA of mulberry; no ecological surveys to ensure biodiversity is conserved.

4.8 53 Fitzroy Park- *supports* scheme.

Revision 3-

4.9 29 neighbours and users of Ladies Pond or Lane object- same issues as before- Lane totally unsuitable for construction traffic, blocks

emergency access to Ladies Pond, CMP unworkable and hazardous, construction disruption, loss of vegetation, disproportionate harm by one new resident.

Arboricultural report revised critique by MacQueen (May 15) submitted from 2 neighbours- previous criticisms repeated and new ones raised- ecological report incomplete as it should address wider area and lane and admits that additional survey work is needed; CMP still has no detail on vehicle sizes; revised survey of trees in arbo report still incomplete and inaccurate thus continued harm to beech and mulberry; single CBR test inadequate to measure impact on tree roots along whole lane, new drainage system and storage will harm oak tree roots, unacceptable removal of hornbeam, poor assumptions made about vehicular impacts; unacceptable adverse impacts on safe tree retention on and off site but Council continues to not listen to weight of public comment opposed to current development.

Revision 4-

4.10 20 neighbours and users of Ladies Pond or Lane object- same issues as before.

More detailed objections from 2 adjoining neighbours:

Wallace House-

BIA: lack of gravel drain will allow flooding of groundwater across lane and into pond, no drainage ditch exists alongside lane.

CMP- HGV's cannot reverse into site without widening lane onto City's land.

Plot ratio- scheme with gym results in double of average for area.

Trees- new CBR data by City shows significant impacts on tree roots.

49 Fitzroy Park ('on behalf of Friends of Millfield Lane')-

BIA- disputes CGL conclusions on ground movements; cannot discharge groundwater onto adjoining heath land and will not get consent from City; drainage comments relating to omission of drainage trench (see Baxter report, Jan 2016), which needs to be reviewed again by Council's consultants (CGL).

CMP- numerous flaws with CMP's figures and assumptions, criticises officers' acceptance of it; precedent for refusal set by Fitzroy Farm appeal decision; lorry movements into site are impossible without encroaching onto Ladies Pond entrance and Heath land and will require removal of railings and trees (tracking diagram of HGV submitted); mitigation measures will harm character of Lane and will not be allowed by frontagers; CMP is thus unworkable.

Plot ratio- misleading information, should include gym bunker in calculations, total ratio of 34% is double the local area's average; raised bund over gym will create very prominent embankment and will require lifting of tree crowns; criticises officers' approach and assumptions on bulk/plot ratio analysis.

Trees- numerous detailed criticisms of incomplete and misleading arbo report and of officers' acceptance of it; new CBR data from City; criticisms of arbo report which does not measure neighbours' beech and mulberry trees and does not properly address harm to their RPA's.

5. POLICIES

Set out below are the LDF policies that the proposals have primarily been assessed against. However it should be noted that recommendations are based on assessment of the proposals against the development plan taken as a whole together with other material considerations.

5.1 LDF Core Strategy and Development Policies

CS5 - Managing the impact of growth and development
CS6 - Providing quality homes
CS11 - Promoting sustainable and efficient travel
CS13 - Tackling climate change
CS14 - Promoting high quality places and conserving our heritage
CS15 - Protecting and improving open spaces & biodiversity
CS18 - Dealing with waste
CS19 - Delivering and monitoring the Core Strategy

DP2 - Making full use of Camden's capacity for housing
DP6 - Lifetime homes and wheelchair homes
DP17 - Walking, cycling and public transport
DP18 - Parking standards and the availability of car parking
DP20 - Movement of goods and materials
DP21 - Development connecting to highway network
DP22 - Sustainable design and construction
DP23 - Water
DP24 - Securing high quality design
DP25 - Conserving Camden's heritage
DP26 - Managing impact of development on occupiers and neighbours
DP27 - Basements and lightwells
DP28 - Noise and vibration

Supplementary Planning Policies

- 5.2 Camden Planning Guidance
Highgate Conservation Area Appraisal and Management Statement (CAAMS)
4.10.07

Other policies

- 5.3 National Planning Policy Framework (27.3.12)
The London Plan (March 2015 consolidated with alterations since 2011)

6. ASSESSMENT

- 6.1 The principal considerations material to the determination of this application are summarised as follows: demolition of building in conservation area; size and design of new building; impact on conservation area, open space, Metropolitan Open Land (MOL) and Heath; impact on neighbour amenities; landscape and trees; impact of basement excavations on hydrology and land stability; construction vehicular access to site.

Background

- 6.2 The applicants conducted consultation with the neighbours, local groups and City of London, prior to submitting the application in late 2011, and accordingly the scheme was amended to reflect their comments, notably regarding size, layout and design of the building, landscaping and plant equipment. Also the applicants gained advice from the City's consultant engineers to inform the detailed development of their Basement Impact Assessment (BIA) as it affected the Heath.

- 6.3 The development has proved very contentious with neighbours and local groups as well as numerous users of the Lane and Ladies Pond and the City of London, as demonstrated by the consultation section above. The site is unusual in that not only it has a complex geology and hydrology with watercourses serving nearby ponds on the Heath but also its vehicular access is solely via a private trackway (Millfield Lane) owned jointly by 3 other neighbouring frontagers and the City of London. Accordingly a detailed Construction Management Plan (CMP) and Basement Impact Assessment (BIA) have been developed and revised several times following reviews by transport officers and the Council's engineering consultants as well as critiques by consultants acting for objectors and the City. Similarly the arboricultural report has been revised several times following local and officer concerns. Notably the scheme's technical documents were significantly revised in spring 2013, a year after the applicant was advised of objections and officer concerns. This explains the length of time taken in reviewing this application.
- 6.4 The 4 key issues that have been subject of much debate and technical analysis and numerous revisions and reviews are therefore-
- a) construction methodology and access along Millfield Lane (ie. CMP);
 - b) impact of excavations on neighbouring structures and hydrology of the area and heath (ie. BIA);
 - c) impact on trees on and adjacent to site including along the Lane;
 - d) built coverage of the plot within designated private open space and conservation area.

Proposal

- 6.5 The scheme involves demolition of the existing house and studio and their replacement by a new part 1 part 2 storey family sized house in a cross-shaped form, plus a new studio of the same size and location as the existing one. The house, as revised, includes- 2 basement elements under the NE and SE wings, comprising plant rooms and cinema; large ground floor comprising reception rooms, gym, pool and garage (in NW wing); 1st floor across the NW-SE wings comprising 4 bedrooms. The studio will comprise a separate guest room, which as revised no longer has roof overhangs and is now connected to the main house by an open pathway. The buildings will all have flat roofs, with the garage, SW and NE wings and studio all having 'green' roofs. The ground floor gym complex will be hidden under a landscaped 'bund' that appears as a grassed embankment flowing over this element up to the house's 1st floor level while the rest of the site slopes downhill from east to west. The remodelling of the site's levels takes account of the existing sloping topography and the new embankment reuses the spoil from the basement excavation to help reduce lorry movements.
- 6.6 The garage will be connected to Millfield Lane by a long driveway; the existing footpath to Fitzroy Park will remain. The southern side of the new house will have an external terrace and outdoor pool; the NW side of the house will have a small external courtyard enclosed by the gym complex. The perimeter fences will remain and nearly all trees will be retained.
- 6.7 The house has a very contemporary design, with extensive glazing and timber cladding on the southern facades, timber louvres on the northern 1st floor façade glazing, and mixture of white render, slate cladding and 'living green walls' on the side walls.
- 6.8 The basement areas range in size and depth- the SE wing wet plant room is 32.5sqm and 2.2m high, adjoining indoor pool is 25.5sqm and 1.5m high; the NE

wing containing plant rooms and cinema is 100.5sqm and 2.6m high. Additionally the garage, NW staff wing and gym will be slightly set into the existing sloping garden. Conversely the SW wing will be raised slightly higher with the existing pool infilled.

Landuse

- 6.9 The new house, with 4 ensuite bedrooms, 2 staff rooms and a guest bedroom, provides spaciously sized accommodation that meets all residential and lifetime home standards.
- 6.10 Energy and sustainability reports submitted state that the house aims to achieve Code for Sustainable Homes 'Level 4' and will reduce predicted CO2 emissions by approx. 25.8% compared to a building regulation compliant scheme. This is welcomed and meets CPG3 targets of 20% reduction through onsite renewable technologies. It will include solar water heaters (contributing 4.9% to this saving), ground source heat pumps (20.9%) and biodiverse green roofs. The solar heaters will be on the main spine roof while the heat pumps will be in a separate screened enclosure in the rear garden. They will have no harmful impact on the appearance of the house or character of the area.
- 6.11 The Code for Sustainable Homes as a measurement tool has now been withdrawn in favour of enhanced Building Regulations as a result of Government policy earlier this year. Thus a condition, rather than S106 clause, will now be attached to the decision to ensure that the development meets sustainability principles and the proposed measures and technologies in the submitted reports are secured and implemented.

Design and heritage issues

Demolition

- 6.12 It appears that the site was originally known as Fitzroy Farm Cottage. OS maps show a building on the site by 1914, in the former grounds of Fitzroy Park Farm. The existing building dates from around the 1960's and was substantially altered in recent years and a single storey swimming pool addition built (see history section above).
- 6.13 Highgate CAAMS describes the site as follows- 'The Water House, to the south of the Wallace House, is set in generous grounds and has its main entrance in the northern stretch of Millfield Lane (there is a small pedestrian entrance between Nos 51 and 53 Fitzroy Park). The property was originally built in the 1950s, but was remodelled by the architect Richard Paxton. It is a two-storey house, with gables and a shallow pitched roof, an angled stone-clad feature chimney reminiscent of the post-war period, and large areas of glazing at ground-floor level. The landscaped grounds include a pond (giving the house its name). There is a separate studio building on the site.'
- 6.14 No objection is raised to the building's demolition. The existing building is unremarkable in its design, and subsequent alterations and extensions in the 1990's by Paxton seem to have diluted any architectural integrity. It is of little architectural merit and of no historic merit. It is barely visible from the public realm and it is not considered to contribute in a positive way to the character or appearance of this part of the conservation area.

Bulk/height/footprint

- 6.15 Fitzroy Park and the environs comprise individual houses of very varied architectural style and scale, set within their own grounds into the topography of the area. It is very verdant and has a secluded, rural feel. Many of the more recent houses, built in the 1960s, were architect-designed, and this variety of materials, forms and styles in relation to the rural nature of the area gives it a unique character.
- 6.16 One of the primary considerations in redevelopment is the effect upon the largely undeveloped character of this area, and the effect on the setting of and views from the Heath. Thus the new building's height, massing, position on the plot, and position within the sloping topography must be carefully considered. The existing building has limited impact on the wider public realm as it is well screened behind the boundary wall. The roof can be seen from limited positions along Millfield Lane, but not from further away.
- 6.17 The proposed new building will be positioned in broadly the same place within the plot and with the same basic orientation but the footprint is enlarged to give a cross-shape, with the central spine aligned with Wallace House next door and the SW wing facing Millfield Lane in the same position as the existing pool wing but with a thicker width. There will be reduction in the maximum height of the dwelling so that, although the main house's flat roof is higher than the existing eaves, it is lower by 1m than the existing ridge. However the single storey wings are lower than the existing eaves and the front wing is actually the same height as the existing pool wing. The house will now be about the same height as Wallace House next door and lower than nos. 51 and 49 Fitzroy Park behind. Its built form and shape with flat roofed wings reflects to some extent that of Wallace House next door.
- 6.18 The proposed increase in size is based upon the site and shape of the existing house and can be accommodated within the size of the plot and still retain landscaped edges to the boundaries, notably at the front and rear. Moreover the additional accommodation is located toward the centre of the plot, rather than the periphery, resulting in no undue increase in overall scale due to the sheltered nature of the site. Green roofs and landscaped embankments reduce the perceived bulk and scale of the building as viewed from neighbouring properties. This is demonstrated by the aerial view montages provided by the applicant which show a predominantly green appearance to the site surrounding the central spine wing's solid roof. The issue of built footprint in the context of its surroundings is discussed further below.
- 6.19 The mass of the house has been carefully articulated to ensure the building sits comfortably within the site and the surrounding landscape. The reduced height of the building compared to the existing one, combined with the proposed landscaping and green roofs, will ensure that the building will be barely, if at all, visible from the public realm outside the site such as along Millfield Lane.

Design

- 6.20 The proposed contemporary building design will be constructed from high quality materials. The south elevation facing the Heath will consist of glazing intermixed with stone and timber cladding and specialist render on the upper bedroom module. The eastern and northern elevations will layer the stone, timber louvres and render creating a high quality textured finish. The western elevation will be principally

covered in a biodiverse living wall with the specialist render on the flank of the upper bedroom module. The majority of the roof will support a layer of biodiverse green roof and will be edged in stone cladding to match the other areas of cladding.

- 6.21 The proposed contemporary design is simple and rational, relying on the high quality natural materials to help the development sit comfortably within its surroundings. Given the secluded and verdant nature of the site and existing modern dwellings surrounding it (including ones very recently built such as no.51), this approach is welcomed and respectful of the character and appearance of area.

Open space and Heath

- 6.22 Policy CS15 aims to protect designated open spaces, including Metropolitan Open Land (MOL), and the importance of Hampstead Heath. It states that development on open spaces should be 'limited development ancillary to a use taking place on the land and for which there is a demonstrable need', that extensions and alterations to existing buildings 'should be proportionate to the size and volume of the original building' and that development on sites adjacent to an open space should 'respect the size, form and use of that open space and not cause harm to its wholeness, appearance or setting, or harm public enjoyment of the space'. NPPF guidance requires development on MOL to satisfy certain criteria with the essential objective to preserve its openness.
- 6.23 This scheme is for redevelopment and not extension of an existing house. It retains an existing residential use here but is not 'limited' in size. It is acknowledged that the size of the new house is significantly larger than the existing house here with a doubling of both footprint (97%) and total floorspace (109%). The height of the new house is about the same as existing and about 10% of floorspace is at basement level. In this case it is considered that the key factor in assessing impact on open space is the visible above-ground volume and footprint. It is thus considered that this scheme in its mass, design and site coverage will accord with the basic policy objectives of open space protection and will not harm the character of this open space or the surrounding ones.
- 6.24 The essential aim is to preserve the sense of openness and greenery to designated private open spaces. This area of Fitzroy Park bordering the Heath is characterised by substantial houses mostly within very spacious grounds with numerous mature trees, which contribute to the rural and green character of this fringe area of the heath as well as creating a visual extension to the heath woodland as viewed from the west. Therefore all the gardens of the properties between Millfield Lane and Fitzroy Park, except those at no.49, Fitzroy Lodge and Apex Lodge, have been designated as Private Open Space. It is considered that the new development, both in its actual site coverage and its visible design, will not harm the open green character and setting of this open space, both on this plot and in conjunction with the other plots. The new house has been designed to minimise its visual impact on the area, with an overall height lower than existing, use of green roofs and embankments and a natural/neutral palette of materials. It is also surrounded by substantial garden space and retains all significant trees.
- 6.25 A site coverage comparison exercise has been undertaken and checked by officers. It shows that the existing house's footprint is being increased from 325sqm to 639.5sqm which is a significant increase of over 90%. However the plot size is also large so that this represents an increase of build/plot ratio from 15% to 29%, which is not considered excessive at a third of the plot being built upon. Moreover the design of the house means that the impression of built footprint is actually lower

than this. The gym will be hidden under a raised embankment which could appear as part of the sloping garden levels, so that the actual visible footprint will be lower at 575.5sqm, resulting in a build/plot ratio of 26.4%. The scheme has been revised to omit the originally proposed roof overhangs to the studio building and connecting footpath, as officers considered that these elements contributed to the visual impression of bulk and site coverage as viewed from above, even though they had no floorspace. It is acknowledged that the main house has a 1st floor overhanging the ground floor at its front thus giving a wider roof plate here. This results in a somewhat bigger roof/plot ratio at 27.7%. However it is considered that this is still acceptable in the context of the locality and site.

- 6.26 An analysis has also been undertaken of surrounding site coverages. It shows that the average for the 7 properties in designated open space is almost 18%, ranging from 8% to 32%. It should be noted that the latter figure of 32% is for no.51 which was recently approved in 2010 and resulted in almost doubling the previous house's footprint of 17% here. The adjoining property at no.53 has had its redevelopment very recently agreed at Committee (on 28.1.16) which also doubles the previously existing footprint of 9% to 20%. Furthermore it would be reasonable to include in this exercise the other neighbouring sites in Fitzroy Park, even though they are not designated as Open Spaces, as they equally contribute to the open and verdant character of both the immediate area and the views as seen from the Heath. In this case, the average of build/plot coverage rises to almost 21%, noting that no.49 has the highest ratio at 35%.
- 6.27 It is therefore concluded that the proposed house with a visible built site coverage of just over 26% (or roof coverage of over 27%) is not excessive in the light of the overall average for the area and the higher than average figures evident on two immediately adjacent plots of nos.49 and 51. Even if one assumes the larger figure of 29% as a true record of actual built coverage (as objectors would prefer), it is still considered that this is acceptable in the light of some adjoining properties. As already explained, the mitigating factors of design with green roofs and walls and remodelled topography help to further mitigate the impression of built form and visual perception of bulk and site coverage. Thus this overall size is considered on balance acceptable for the area and would not result in over-development.
- 6.28 The site is adjacent to the Heath which is both Open Space and MOL. The appearance of the proposed development in views from the Highgate Conservation Area and Hampstead Heath has been assessed in detail as part of the development of the final scheme. Computer Generated Visualisations (CGVs) have been created to test the effect of proposed massing and the extent to which the proposed house will appear in key views. The visualisations demonstrate that the proposed house will appear on or below the ridge height of the existing house in public views from the Millfield Lane. The proposed development will not be visible in longer views from the Conservation Area or the Heath due to the secluded nature of the site. In views from Hampstead Heath, both the existing and proposed house are screened by existing trees during summer and winter months so that the new house will not be visible. Consequently it will not harm the open character and setting of the adjacent Heath open space and it will preserve the openness of this MOL.

Conservation area

- 6.29 It is noted that the building is within a conservation area which is a heritage asset. Special attention has been paid to the desirability of preserving or enhancing the character or appearance of the conservation area, in accordance with s.72 of the

Planning (Listed Buildings and Conservation Areas) Act 1990 as amended by the Enterprise and Regulatory Reform Act 2013. It is concluded that no harm is caused to this heritage asset by the loss of the existing house or the development of the new larger house for reasons explained above, and that the scheme preserves the character and appearance of the conservation area.

- 6.30 In conclusion the demolition of the existing building is considered to be acceptable as it does not create a positive contribution to the character or appearance of the conservation area. The proposed replacement building is acceptable in terms of its scale, bulk and layout on the plot, and in its high quality detailed design. The character and appearance of this part of the Highgate Conservation Area will therefore not be detrimentally affected. The openness of the site and surrounding Private Open Space and of views from the adjacent Heath and MOL will not be detrimentally affected.

Trees

- 6.31 The site contains front and gardens with lawns and several trees of varying quality, but notably a mature hornbeam adjoining 49 Fitzroy Park and a very large veteran oak facing Millfield Lane. Also the site has 2 large trees overhanging from neighbouring gardens: a beech at no.49 and a mulberry at Wallace House. The Arboricultural report has gone through several revisions following queries from officers and objections by neighbours, concerning issues such as protection of offsite trees and the veteran oak, level changes, impacts of drainage/utilities, and impacts by construction processes and the new driveway. Notably it was significantly revised in December 2014 to give a corrected and extended survey, measurements of 2 neighbouring trees, assessment of impact on trees along Millfield Lane, protection of all root protection areas of retained trees, and details of service runs. Later revisions in autumn 2015 included revised drainage plans to lessen impact on the oak and hornbeam, more detail on protection to these trees, retention of the hornbeam and revised foundations of the adjoining outhouse, further monitoring of the ground conditions of Millfield Lane during construction, mitigation measures such as mulching around the oak and ground guards to protect roots along the lane, monitoring of the hornbeam's health, plus assessment of the impacts of the lowered driveway on the mulberry and of the relocated acoustic enclosure on the sycamore. Further revisions have also been required to ensure it dovetails with other updated technical documents, ie. the BIA and CMP.
- 6.32 The scheme originally involved felling 6 trees of low amenity value, which was later revised to 5. Some trees have been removed since the initial site survey, so that there are now only 4 trees on site (birch, apple, magnolia, willow) that are proposed for removal, with several further trees subject to varying levels of root protection area (RPA) encroachment.
- 6.33 No objections are raised to the removals of the small and/or unremarkable trees and their loss can be easily compensated. There is no objection to the minor RPA encroachments of T1, T11 and T13, nor to T15 (birch) where the new outhouse will use a piled foundation design which will limit root damage. The new acoustic enclosure under the sycamore T11 will not harm it. The T17 hornbeam at the rear will now be retained which is welcomed, despite its apparent presence of honey fungus- the RPA encroachment here is similar to T15 above and proposed mitigation measures should improve its root environment.
- 6.34 With regard to neighbouring trees, the beech T18 at rear is visually important and there will be little direct impact on this tree through construction and any indirect

impacts can be avoided through proper implementation of tree protection measures. The proposed crown lift/pruning works are also acceptable. The mulberry T30 at front would be minimally impacted by the lowered driveway with suitable protection measures in place. Trial pits within the proposed driveway have not revealed any significant roots.

- 6.35 The key remaining affected tree is the veteran oak T5 which is the most significant and important tree on site. With regard to such veteran trees, special consideration is needed: BS5837:2012 states "...particular care should be taken in the design to accommodate them in a setting that aids their long-term retention" and "...it is recommended that no construction, including the installation of new hard surfacing, occurs within the RPA." The scheme involves a wider south wing which will project further beyond the existing one by about 4m into this RPA and involves a new drainage trench across it.
- 6.36 There are various 'best practice' guides which differ from the above BS and give further advice on minimum root protection areas for veteran trees, such as 15 times the trunk diameter guide. The arboricultural report fails to directly address this veteran tree literature, and there is no consideration given either to the merits of the 15x multiplier or to the relevance to this site and tree. The report, despite acknowledging the emphasis given to veteran trees, claims it is 'less applicable' to this site due to the proximity of existing development. Also there is no direct reference to the BS recommendation to avoid any construction within the RPA of veteran trees, but it is assumed that this is also treated as 'less applicable' to this site. Officers contest these assertions and consider that, in the absence of adequate justification, there will be harm to this veteran tree which requires additional protection beyond that normally expected for other trees.
- 6.37 The proposed construction methods will minimise the severance of large roots and proposed mitigation measures have potential to be beneficial. The planned usage of the area surrounding the tree and the relationship between the proposed building and the tree (disregarding construction impact) is considered to be viable in the long term. Nevertheless, any construction impacts must be viewed as a significant negative in accordance with published guidance.
- 6.38 Drainage details have been amended to limit the impacts within the RPA's of retained trees, so that drainage now generally flows the route of the existing drainage in areas where there is potential for conflict. New harvester and attenuation tanks at the rear under T11 sycamore will be likely to have limited impact due to existing drainage infrastructure and installation under supervision. The other pair of tanks under the driveway are close to the RPA's of T5 and T30, but will have minimal impact due to the current use and lack of significant roots here. The new soakaway is within T5's RPA, but this is on the site of the existing pond so is feasible, although more assessment of the impacts is needed.
- 6.39 No details of site storage areas are included and soil contamination is potentially a serious issue. However, these details can be addressed by condition.
- 6.40 A walkover survey and trial vehicle runs of Millfield Lane have indicated that significant damage to trees bordering this lane is unlikely although some contact may occur. However it is considered that light pruning of branches where necessary to facilitate lorry movements would be preferable to minor damage caused by them and will not seriously harm the amenity value of the trees or the Lane.

- 6.41 The report is somewhat confused on the need for additional ground protection along the Lane in order to protect tree roots underneath from heavy construction traffic, based on new CBR data (discussed further below in the transport section) and this could be clarified; however it notes that this situation may be subject to change and that ground guards may be used to protect tree roots. It is considered that suitable temporary ground protection methods would enable construction access while reducing the impacts on trees to acceptable levels. Nevertheless there are numerous conflicts identified between the CMP and the Arboricultural report and they need to properly reflect each other before they can be finally approved.
- 6.42 In conclusion, it is considered that reasonable steps have been taken to minimise the impacts on the majority of retained trees on or directly adjacent to the site, and that the proposed removals are justified and acceptable, subject to suitable replacement planting. However officers are not satisfied on the basis of the current report that the oak tree T5 will suffer no significant harmful effects from the development - its status as a veteran has been noted but not given the full weight of consideration required. It is acknowledged that special attention has been paid to reduce the impacts to this tree, taking on board officers' comments. However, given that older trees are more vulnerable and taking into account the cumulative impacts of the scheme on this tree, it is felt that there is insufficient evidence in the finally revised report to categorically state that the tree will not suffer significantly and thus this forms a reason for refusal.

Ecology

- 6.43 An ecology report was belatedly produced in early 2015 as required by CPG guidance on account of the site's proximity of the site to the Heath. It showed that the scheme would not impact upon the neighbouring SNCI, the site did not contain any special habitats nor any evidence of reptiles or protected newts but it recommended that a bat survey be carried out as the building had potential for bat roosts. Subsequent bat surveys in June 2015 recorded no evidence of bats or roosts and proposed a mitigation and enhancement strategy (eg. lighting, batboxes etc.), which can be secured by condition.

Neighbour amenity

- 6.44 There will be no loss of amenity to neighbours. The ground floor is hidden behind high boundary fences and bushes and will be invisible to neighbours. The first floor will be 12m away from its closest neighbour at Wallace House and this western wing will have no windows to create any overlooking issues. The eastern wing will have 7 slot windows serving a bathroom/dressing room which will only overlook the large pond of no.55's garden as the house is well over 50m away. The northern facade is a minimum of 24m away from the pool wing of Dormers to the north and approximately the same distance as the existing house here; nevertheless it will have timber louvres across its entire glazed length which will reduce any perception of overlooking or light pollution.
- 6.45 The distances from neighbours mean that there will be no loss of daylight or sunlight and no increased sense of enclosure. Although a larger house here may result in a perception of loss of outlook to neighbours, notably Wallace House and Dormers who have been used to a secluded and spacious setting here, this is compensated by the use of green roofs and landscaped embankments to mask or soften the additional built mass.

- 6.46 Mechanical plant and condenser units will be now provided in an acoustically-screened enclosure in the rear garden under the sycamore, adjoining the boundary with no.55's pond- the originally submitted location in the front garden was considered inappropriate due to being within the root protection zone of a veteran tree. The new location and its foundation design will not harm the roots of the sycamore. A revised acoustic report shows that it will readily meet Council noise standards, to be secured by condition, and that no harm will be caused to neighbour amenity.

Basement Impact

- 6.47 There are 3 proposed basement areas - a SE wing with wet plant room and indoor pool, and a NE wing containing plant rooms and cinema- totalling approx. 158sqm and ranging from 1.5 to 2.6m deep. Additionally the garage, NW staff wing and gym will be slightly set into the existing sloping garden. The original scheme had a 'gun & boot room' spur off the NE wing, but this was later omitted to help ground water movement downhill under the house. The proposed construction involves piled foundations, concrete base and steel/timber frame over. A kingpost retaining wall is used for the basement to reduce ground disturbance and avoid cut-off of water movements at ground level.
- 6.48 The key issues identified by the first Basement Impact Assessment (BIA) are that the Fitzroy Park area is in the catchment area of a stream (Highgate Brook). The site sits on London Clay, a non-aquifer, but close to the permeable Claygate Beds boundary. However the site is in a hydrologically-sensitive area due to proximity to the Ponds and deterioration of water quality after heavy rainfall, thus any basement scheme needs to take account of this.
- 6.49 The original pre-app scheme, prior to the formal application submission, had its initial BIA reviewed by Haycocks who were acting as hydrology advisors to the City Corporation at that time. The BIA was accordingly revised to incorporate this advice.

Original BIA

- 6.50 The submitted BIA provided the following information via 8 borehole tests. The London Clay has perched water in made ground and minor groundwater flows traversing the site between these layers. Mitigation measures are thus needed to deal with subsurface flows. The strategy is to maintain groundwater flows across the site in both construction and permanent phases; to protect groundwater and ponds during construction; and to improve attenuation capacity of the site to improve storm water protection to the Lane and Ponds.
- 6.51 The original drainage proposal involved the following- remove existing foundations which currently create a continuous barrier; provide fin drains around the basement to provide attenuation and not impede groundwater flows across the site; provide land drains under front lawn plus a soakaway and rainwater harvester to collect surface water; drainage into a local combined sewer in Millfield Lane; provide a gravel pit and gravel-filled trench under the Lane to carry any water overflow into the opposite bank on the heath and to ensure water was not prevented in recharging the Ponds. It should be noted that this drainage strategy with outflow across the Lane, which has been subject to much criticism by locals and the City (see further discussion below), was initially recommended by Haycocks to effectively deal with surplus overflow groundwater- it is estimated that the onsite storage controls would reduce surface runoff outflow by 60% and thus greatly

reduce the risk of flooding in the Lane.

BIA revisions

- 6.52 The BIA was revised in 2013 following advice from Haycocks (the City of London's hydrology consultant) which recommended more investigations on 3 issues- cumulative impact on nos. 53 and 55 Fitzroy Park, drainage strategy, and land stability. In particular it showed that any risk to no.55 and its pond was low; the drainage strategy mitigated any risk from that approved for the redevelopment scheme at no.53; previous comments on drainage have been incorporated into the strategy; detailed studies showed no significant risks to neighbouring properties; conditions requiring monitoring of perched water and catch pits agreed. Accordingly the BIA contained a letter from Haycocks which stated that these 3 issues have 'now been quantified'. Finally 13 borehole tests were now undertaken and the BIA was reformatted with screening and scoping stages to reflect the procedural advice in CPG4. The BIA has much discussion on groundwater flows, watercourses, springs and ponds. Its screening stages concluded that further work was needed on drainage lines but no further action was required on surface water or slope stability categories.
- 6.53 The revised BIA and the critique by Baxter Associates (on behalf of 2 neighbours and the City) were reviewed in February 2014 by the Council's engineering consultants CGL with expert advice on drainage matters. They concluded that the BIA was comprehensively and adequately carried out by qualified engineers in line with CPG4 recommendations and that the scheme was unlikely to have any impact on groundwater levels (especially as such flows may have been affected by other basements upstream) or on ground movements to neighbouring properties (due to their distance from Water House). However 3 issues (on structural stability, drainage/runoff, and cumulative impacts) were raised that needed addressing and they agreed with some of the points raised by Baxter regarding drainage and boundary stability impacts- the effect of the basement on the neighbouring swimming pool at 49 Fitzroy Park should be considered; a more detailed assessment of cumulative impacts should be provided; the drainage strategy needs revising as the proposed fin drains and soakaway would be ineffective and it was unacceptable to discharge land drainage into a public sewer.
- 6.54 The BIA was revised again in 2014 to address these comments. It was further criticised by Baxter, notably regarding the surface drainage and impact on the boundary wall and pool structures at no.49. Both reports were reviewed again by CGL in July 2014. They considered that the additional analysis of the neighbouring structures and the impact of the proposed kingpost wall was still incomplete and needed further study. However they concurred with the commentary and general findings relating to cumulative impacts, and they agreed with the completely revised drainage strategy. This now shows water flows to the sewer maintained as existing and the land drainage separated from this and the soakaway. Some surface water would go into 2 rainwater harvesters and attenuator tanks with an overflow for excess water into the sewer. Fin drains around the building would drain groundwater into a large soakaway where water would soak into the made ground layer 1.5m deep in the front lawn; overflow storm water would continue to be conveyed under the Lane by a gravel trench. This strategy was considered acceptable by CGL subject to some minor comments suggesting their incorporation in the ultimate detailed design. It was considered that the criticisms by Baxter were unjustified now and that the scheme now proposed a reduction in existing surface water discharge from the site with the need for agreement with Thames Water on the details.

Final BIA version

- 6.55 Further survey information and studies for the boundary with no.49 were undertaken as part of a 3rd BIA revision in late 2014, commented on again by Baxter and finally reviewed by CGL in June 2015. They concluded that the neighbouring pool was outside the '45 degree zone of influence' and thus any impact would be minor. However they queried the BIA's optimistic conclusions on likely movements to the associated pump house and plunge pool at no.49 as a result of the proposed kingpost wall construction. The analysis predicts any damage to be in categories 1 or 2 which are acceptable in CPG4; if more conservative assumptions were used in the analysis, predicted damage could go into a higher category. Nevertheless, CGL conclude that this may be acceptable on the basis that this will only impact associated garden structures rather than the main home and because generally the assessment of building damage as a whole tends to be conservative when undertaken in this manner. Thus they consider that it would be reasonable to request detailed analysis/method statements for this area to be provided post-planning. They also recommend that the contractor should be made aware of the potential for movements in this area, and the construction methodology should be controlled and monitored appropriately.
- 6.56 In responding to the Baxter criticisms, CGL agreed with the points on ground movement analysis as discussed above; however it was noted that, although king post walls do have the potential to cause significant ground movements, equally they can be very effective and movements can be low if well-constructed and in the right ground conditions. This construction is entirely contractor dependent and therefore the onus would necessarily lie with the contractor to provide a comprehensive working methodology designed to ensure that movements are limited.

Drainage into Lane

- 6.57 With regard to drainage onto Millfield Lane, the City Corporation have continually objected to having a gravel trench under the Lane due to harm of uncontrolled groundwater flows onto their Heath. Equally the lack of an overflow drain would result in groundwater flowing overground to the Heath and Ponds. The applicants have maintained that this overflow trench was solely proposed in accordance with recommendations made by Haycocks who were advising the City in 2012 and who wished to maintain surface water flows in the catchment area for recharging the ponds. The City dispute that they ever agreed with this strategy and anyway Haycocks are no longer used by them. Nevertheless, the applicants have decided to omit the trench, as this element would be partly on their land thus requiring their consent and as it is not required as part of their drainage strategy. Instead any overflow would go into the existing drainage ditch alongside the Lane.
- 6.58 The City, with Baxter's advice, previously considered that groundwater drainage into a soakaway would be ineffective, being in London Clay, thus will discharge flows onto the adjoining Heath and result in overland flooding to the Bird Sanctuary pond. They now consider that this new alternative with no trench is still unacceptable and that the scheme's drainage strategy does still need an overflow pipe. It is required to cope with excess groundwater from the soakaway, which will fill up quickly in storm conditions, and to ensure it drains into the Bird Sanctuary pond and not result in overflow across the Lane and cause flooding.

- 6.59 In response, the applicants consider that the soakaway will easily infiltrate, as it is in a 1.5m deep permeable made-ground layer, and its design and situation is similar to one successfully built at Fitzroy Farm nearby with the City's agreement. They maintain that groundwater already seeps into the ditch alongside the Lane during waterlogged conditions and a new gravel pit overflow will continue this existing process with added attenuation. The ditch is an existing gravel-filled drainage channel along the Lane; as it was previously silted up, it was improved, relayed and levelled outside Water House by the applicants in 2011. They consider that the proposed drainage system will improve the existing situation and does not need a further revised BIA. However Baxter disputes these conclusions and states there is no drainage ditch and the other built soakaway does not work properly leading to groundwater flows across the Lane. He also disputes the effectiveness of onsite attenuation systems.
- 6.60 CGL have already agreed the principles of the drainage strategy (see para 6.54 above). They have since commented further on the latest revised drainage strategy and objections to it; they still consider this to be appropriate for the design and can see no mechanism that would cause groundwater to flow overland to the Heath and Ponds as suggested by the City or Baxter.
- 6.61 It is therefore concluded that the BIA as revised is adequate in demonstrating that the scheme will not harm local hydrology, geology and land stability conditions. It is proposed that any permission should have a Basement Construction Plan (BCP) secured by S106, which includes reference to the matters recommended by CGL regarding the need for submission and approval of studies on detailed drainage design and construction method statements for the boundary wall prior to works commencing on site, as summarised above.

Transport

- 6.62 The site has a vehicular access on Millfield Lane and a pedestrian-only access to the rear from Fitzroy Park. Both routes are privately maintained and are not part of the public highway network; the unmade section of Millfield Lane is jointly managed by the City of London Corporation and the residents who have a boundary adjacent to this unmade section to the centre line. As already noted above, this vehicular access is along a privately-owned trackway which has a largely unmade surface and is only wide enough for one vehicle. There are currently two car parking spaces on the site, and the site has a PTAL rating of 1a (poor). Waste collection is taken from Fitzroy Park.

Parking

- 6.63 The principle of a 2 car garage, although in excess of the Council's carparking standards, is considered acceptable given the existing parking arrangements which can already accommodate several vehicles, the site's location and the low level of accessibility by public transport. Revised plans show a turntable within the garage to ensure that cars can enter and exit in a forward-facing direction and also to ensure that any cars parked on the driveway can also do this by onsite manoeuvring. A condition should be attached requiring that vehicles access and egress from the site in a forward gear to maintain highway and pedestrian safety. Furthermore a S106 clause for car-capped housing preventing parking in the surrounding CPZ area should be secured to deter excessive private vehicle use in connection with this property.

- 6.64 Cycle parking is provided in the garage area with two Sheffield stands for 4 cycles. This is considered to meet both Camden's cycle parking standards and those of the London Plan.
- 6.65 Due to the restrictive and sensitive nature of the final section of Millfield Lane and the scale of the proposed development, a relatively detailed draft Construction Management Plan (CMP) has been provided as part of this planning application. It is noted that the draft CMP was revised following pre-application consultations with locals by the applicants. Subsequently, as with the above-mentioned BIA and arboricultural reports, this draft CMP has required several revisions following concerns by locals and officers.

CMP revisions

- 6.66 The original CMP in 2011 was revised to accord with feedback from locals. Total movements were reduced to a daily cap of 8 vehicles in total for 94 weeks of a 100 week construction period and 12 vehicles for intermittent peak periods over 6 weeks (i.e. during bulk excavation, piling and basement construction). Access would be from Highgate West Hill, Merton Lane and Millfield Lane. Hours would be 8am to 6pm weekdays only with about one HGV every 30 minutes, with this rising during the peak movement phase of 6 weeks in the winter period when pedestrian activity in the Lane was considered to be at its lowest. The CMP included mitigation measures covering issues of dust control, wheel wash, noise, community working party, travel plan and temporary drainage system. Data from surveys by the applicant showed that the Lane was well used by sustainable modes of travel, both by cyclists and pedestrians, with flows of 1000 movements being recorded between 8am to 6pm on weekdays and that mitigation would be included to minimise the impacts on these movements by concentrating them in the quieter period of 10-12am.
- 6.67 The applicants also initially proposed to create a temporary surface treatment for the final section of Millfield Lane. However, following requests by locals and the City at pre-application stage, the submitted draft CMP no longer proposed any temporary resurfacing of the Lane and instead proposed a minimal intervention option of pruning of trees where necessary, pruning vegetation and removing the ditch to create a level gravelled surface on the verge for pedestrians, and daily repairs and monitoring of the road surface when necessary.
- 6.68 In terms of managing the impact of vehicle movement, banksmen would walk in front of the lorries and at the junction of the Millfield and Merton Lanes to ensure pedestrian safety. A 'CBR' (Californian Bearing Ratio) measurement was taken from one location in the Lane outside the site to demonstrate that the lane had good resistance to rutting and good load-bearing qualities and thus the underlying sewer would not be damaged. This issue is discussed in more detail later below.
- 6.69 Following comments and concerns by residents and officers, the CMP was significantly revised further in 2013 and again in 2014 to address some of these concerns. Key changes were- Traffic movements are now 8am-2pm and 4pm-6pm with a 2 hour break to avoid peak pedestrian movements at 2-4pm along the Lane; HGV movements reduced to one per hour to ensure no more than one such vehicle in the local area; reference made to works agreed at nos.51 and 53 Fitzroy Park and the need for phasing to stagger vehicular movements in the area, notably at the common junction with Merton Lane; pruning vegetation and improving drainage along verges only at pedestrian passing points on Lane rather than create a level surface; more detail on banksmen strategy for lorries passing through narrower

sections of Lane and refined swept path analysis with reference to 1.2m wide 'pedestrian zones'; increased number of banksmen and speed reduced from 4 to 3mph; new Ladies Pond emergency access strategy; CBR data shown.

- 6.70 The CMP was finally revised in Dec 2015 in response to officer requests- the applicants agreed to reduce the traffic movements down to a total cap of 8 daily, ie. omitting the peak of 12 lorries, so that the overall duration is 104 weeks; more data was provided from 5 additional CBR readings along the whole Lane to demonstrate its structural condition; there is also now reference to a scheme for protecting trees, roots and the lane to be submitted later for approval, as well as clarification on the applicant's right of access to the site.
- 6.71 The CMP has been carefully reviewed by transport officers in line with the Council's old S106 checklist. It is noted that the newer CMP proforma has not been used at this stage. It is indicated that no further developer consultation has been undertaken with the City of London, the Fitzroy Park Residents Association (FRPA) and other residents and relevant parties in respect of the various CMP drafts, following the initial pre-application discussion held in 2011. However this approach has been queried, given the passage of time since this initial consultation, given the unique setting of this development adjoining the heath with sole access along an unfinished trackway partly owned by others, and given the ongoing concerns expressed by the City and other frontagers. It is thus questioned why more up-to-date communication with the local community has not taken place for the latest CMP version (Rev L). As noted in the CMP, a Construction Working Group will be formed of these parties and the Project Managers of other construction sites in the vicinity (such as 53 Fitzroy Park and Hampstead Heath Ponds) to keep everyone informed of progress and to deal with any issues as they arise. This is welcomed in principle.

Final CMP version

- 6.72 It can be considered that the draft CMP is a comprehensive document and provides a good deal of information about the development and how it will be constructed- indeed it is considerably more detailed and developed in certain areas than many other such documents for large schemes due to the sensitive context here. However it is highlighted that a contractor has not been appointed at this time and will not be until permission is granted, so a detailed works programme has yet to be developed to provide full confidence that the document is workable or that the restrictions on vehicle movements can be achieved. As such, it should be emphasised that the CMP is very much a working document which would need to be agreed, reviewed and updated on a regular basis with the relevant landowners of the Lane as the programme develops, and should be secured via the S106 process to ensure this is undertaken. The inclusion of a Travel Plan is welcomed as part of the draft CMP, given the local restrictions. The adopted Travel Plan will need to include travel arrangements and measures to mitigate the impact of traffic associated with the development other than construction vehicles.

Vehicular movements and access strategy

- 6.73 The latest revised draft CMP (Dec 2015 version) is considered to be as accurate as possible, in the absence of a contractor being appointed, in terms of the reduced numbers and timings of vehicle movements proposed. This includes the maximum of 8 vehicles per day (both HGV and LGV) at intervals of 1 hour (thus 16 two-way movements), and a restriction on vehicle movements between 2pm and 4pm (or an alternative time period subject to pedestrian movements), which is highlighted as

the peak pedestrian movement times from the survey. Without these restrictions in place, it is considered that pedestrian safety concerns have not been addressed adequately. It has been requested that a site management plan should be incorporated that details how these timings will be managed so as to avoid vehicles waiting on the public highway section of Millfield Lane. The duration of works for about 2 years and its lengthening by another 4 weeks, as a result of the reduced daily cap to 8 lorries, is acceptable. Locals consider that the CMP under-estimates the number of lorry movements required. However, officers note that there is a considerable over-estimation of vehicle movements included, as the number of vehicle movements connected with the excavation went up as the quantum of excavation proposed was reduced in later versions of the CMP. This suggests that there is room for further restrictions and shortening of the 104 week programme from that currently being indicated.

- 6.74 A significant amount of information has also been submitted that seeks to address the pedestrian safety concerns– banksmen will be used throughout the construction period to escort heavy vehicles up and down Millfield Lane at walking speed (less than 5mph), whilst vehicles will be forced to stop at certain locations in order for pedestrians and cyclists to safely pass. However this control mechanism is not clear in respect of the LGV vehicles- given the constraints of Millfield Lane, it is considered that all vehicles entering the site must be escorted at walking speed to maintain pedestrian safety. These measures are welcomed given the nature of Millfield Lane, in addition to the further self-enforcing restrictions detailed to minimise the impact. In respect of restricting the size of vehicles, the CMP states that there will be no 4 axle lorries used for access and it is expected that there will be no articulated lorries; however the final version will need to make this explicit as well as specifying a maximum weight of 24 tonnes along the Lane.
- 6.75 The Lane itself, ie. the actual trackway excluding the vegetated verges, is technically wide enough to accommodate HGV lorries which are assumed to be 2.5m wide. However it is acknowledged by the CMP plans that this lane is narrow and in some parts will require pedestrians to use the adjoining verge to safely pass such lorries; furthermore the lane has some localised restrictions by bushes, trees or other features where pedestrians will not be able to use the verge in this way. It is thus impossible to create a complete physical segregation of vehicles and pedestrians along the Lane to meet HSE recommendations. Accordingly the CMP has a detailed banksmen strategy at these pinch points to ensure protection of pedestrians from the vehicles. The applicant's CMP refers to the Lane ranging in width from 3.8 to 6.4m but this includes the full width including verges between boundaries. This is disputed as being an over-estimation; the City have carried out their own topographical survey and which shows the actual useable width to be 2.7 to 4m and thus they argue that only 21% of the lane at 3.7m wide would allow a clear 1.2m pedestrian refuge while 15% of the lane would have none, being less than 3m wide. Their tracking plots show that some lorries would also have to overrun the surface at corners and pinch points leading to potential damage to vegetated verges.
- 6.76 Furthermore the City has produced a video of a hired HGV to graphically demonstrate the restricted width of the lane and conflicts between lorries and pedestrians. The applicants have also produced their own video of a HGV to visualise how a vehicle would be controlled as it travelled along the Lane. Overall, the videos produced do highlight the unique setting of the Lane and its unmade nature in context of Hampstead Heath. The video made by the applicant also goes some way in explaining how the banksmen strategy would be employed in managing the impact of construction vehicle on vulnerable users of the Lane.

6.77 This strategy has been developed in considerable detail and is welcome as a mechanism for this unusual situation, but it is recognised also that this does rely on the cooperation of pedestrians when passing the vehicles and controlling or supervising their pets and children. It is also acknowledged that the intensity and duration of construction vehicular traffic along Millfield Lane will inevitably create disruption and nuisance to the substantial use of the lane by pedestrians and cyclists and will harm their quiet enjoyment of the lane as well as change its rural ambience. However, given the unique circumstances of this case whereby this site can only use this lane for all construction and vehicular access and given the revisions that have been made to the CMP to minimise its impact as much as reasonably possible, it is considered on balance that in general terms the access strategy along the Lane is broadly acceptable.

Mitigation works to Lane

6.78 As noted, Millfield Lane is a private unmade track partly managed and maintained by the City of London. The developer's original proposal to resurface the lane as a temporary measure during construction was rejected by the City of London and residents and thus a minimal intervention programme was detailed in the earlier submissions. The mitigation works section of the CMP has continued to be tweaked with various amendments, including general proposals for daily monitoring and repairs with granular material as and when necessary, pruning of verges and overhanging trees and tree root protection. Although all these measures would be considered acceptable in principle in a 'normal' public highway setting, in this case they would ultimately need approval from the landowners of the Lane and there remains uncertainty as to whether these measures would prevent any long term damage being caused.

6.79 The CMP does refer to physical works designed to be in keeping with the rural setting of the Lane. As detailed above, in principle this approach is welcomed and certainly the lack of any wholesale track resurfacing reflects the early pre-application discussions. However it remains unclear what this would mean in practical terms when connected to the pedestrian passing points – the CMP refers to 'dressing back' verges, pruning vegetation and improving drainage at pedestrian passing points, and its plans refer to a '1.2m wide pedestrian zone' along the lane, to ensure safe passage or refuge of pedestrians. It is not clear exactly what is intended here by these statements and whether this entails wholesale clearance to create a safe level verge for pedestrians to walk along the length of the lane or whether it only involves limited pruning of overhanging bushes at specific locations of 'pinch points'. It appears that the applicant is intending to carry out works along the Lane that are beyond his immediate control outside the site and which could be beyond a minimum level of intervention, contrary to the wishes and probable agreement of the other landowners.

6.80 Although the CMP as noted above is only a draft document, the implications are not clear and any significant removal of vegetation could lead to an erosion of the rural landscaped character of the Lane which would be unacceptable in environmental and visual amenity terms. However this has to be balanced against the temporary nature of the works for a 2 year period, the effect on only limited short sections of the lane and the fact that low bushes and grass can grow back easily. Nevertheless it is a concern that needs clarifying and addressing, with a more detailed feasibility study on the impact to the Lane and not just within the CMP, as it is not clear what extent of vegetation clearance is envisaged and its level of impact.

6.81 The applicants will need to enter into a bond with the landowners to ensure any necessary repairs and/or reconstruction of Millfield Lane is carried out at their expense, if an agreement with the landowners can be reached. Additionally a financial contribution to the Council will be required to repair and/or mitigate for construction impacts in connection to the public highway on Merton Lane and its junction with Millfield Lane, which should be secured by a Section 106 Agreement. It is estimated that £22,602 is needed to cover the cost of resurfacing, repaving and any appropriate works to the pedestrian safety measures at this junction.

CBR tests

6.82 Following requests made by locals and officers, the applicant has also recently undertaken more surveys of the physical strength of the Lane by carrying out California Bearing Ratio (CBR) readings along its whole length. In the earlier submission, the CBR was indicated as 30% outside the site itself which meant that the road surface was able to resist severe damage without rutting or harm to tree roots beneath. However the additional data now shows the Lane towards its entrance junction to have much lower figures, many being below the recommended minimum level of 15%. This indicates that parts of the unmade surface of the Lane are not sufficient to take the continued use as a heavy construction route. Three of the five sites tested have readings as low as 5%. All of these three sites would be subject to damage along the lane as it is unlikely to resist the weight and volume of construction movements proposed and furthermore subsurface tree roots would be damaged which would harm the longterm survival of mature trees alongside the lane. The applicants acknowledge this in their CBR report by stating that root protection measures will be needed in these locations. There is also a concern that the lane could collapse if this impacts on the structural stability of the sewer running along the length of the lane.

6.83 In support of the above consideration, the City have conducted their own CBR tests along Lane and conclude that the levels of construction traffic proposed are 'highly likely to result in degradation of Lane's surface and lead to damage and compaction of subsurface, potentially impacting on root zones'. Out of 9 CBR test results, 7 give low figures which suggest that mitigation measures are needed to strengthen road surface and protect tree roots

6.84 Accordingly the applicant has responded in part to these concerns, both within the CMP and Arboricultural report, to suggest that intervention will be required to facilitate construction access, both in terms of tree protection, pruning of trees/vegetation, and implementation of mitigation beyond the site boundary possibly in the form of laying of ground protection. The combined effect of these measures on the setting and character of the lane is not clear from the information submitted to date. The installation of large ground guards along the lane would be acceptable as a sufficient measure to protect tree roots and road surfaces in themselves. However it is very unlikely that these guards will be lifted and removed from the lane every evening after cessation of construction traffic. Their retention on a longterm basis during the construction period, depending on the location, nature and appearance of the guards, would be likely to harm the rural landscaped character of the lane and consequently the conservation area, as well as possibly creating a pedestrian safety hazard. In addition, as indicated above, significant pruning and clearance of vegetation could also be harmful to this landscaped character of the lane.

6.85 It is thus concluded that the proposed intensive use of the lane for construction traffic would cause physical damage to the lane itself and harm the longterm

survival of the adjoining trees. It is also considered that, in the absence of further information to demonstrate otherwise, necessary mitigation measures, such as ground guards and vegetation pruning, to prevent such damage would be likely to be harmful to the rural landscaped character and appearance of the lane and the wider conservation area. Moreover these measures may require approval from frontagers, such as the City who partly own the lane, which is currently not guaranteed and indeed probably very unlikely, given their objections so far, and thus the proposed CMP with its required mitigation is not workable.

Access into site

- 6.86 Finally there are further concerns regarding the detailed access arrangements to this property. The property only has rights of access along the Lane between the junction with Merton Lane and the northern boundary of the site. The CMP provides a swept path analysis plan showing that a construction vehicle needs to travel beyond this right of access in order to manoeuvre into the site safely and adequately. Not only is this not legally permissible for the owner, but also this operation at the entrance to the Ladies Pond is considered to disrupt the safe use of the Ladies Pond, particularly access for emergency vehicles, and thus brings into question the effectiveness of the management plan submitted. Another tracking diagram provided by a neighbour shows that HGV's manoeuvring in and out of the site's narrow entrance would have to overrun neighbouring land, both the Ladies Pond and the adjoining Heath, which would require removal of railings and possibly trees, depending on the precise movements involved. In contrast, the applicant's CMP does not show an HGV exiting the site. The neighbour's evidence appears to be reasonable and shows that, whatever manoeuvres are employed, trees on either heath land opposite or the site itself adjoining the entrance would be affected. Such encroachment and potential harm to trees would be unacceptable and again indicates that construction vehicles would require movements beyond the site and Lane, harming safety and amenity and making the CMP unworkable.

Appeal decision

- 6.87 Objectors have referred to an appeal decision on 12.5.09 (ref 2008/0696/P) for the redevelopment of Fitzroy Farm further north along this lane, which dismissed an appeal against refusal of details of a CMP. The CMP was originally refused by the Council as it was not considered to 'safeguard the safety and amenity of users of this area of the Heath'. The Inspector agreed and concluded that the 'approved development could not be constructed without causing considerable and prolonged risk to safety, and disturbance to residents and the many visitors to the locality'. The objectors argue that the appeal decision is evidence that construction access along this lane is considered to be unacceptable.
- 6.88 However there are a number of key differences between both sites. The scheme for a new house at Fitzroy Farm originally involved vehicular construction access along Millfield Lane. However this site has an alternative access from Fitzroy Park and thus, following this appeal decision, a new scheme was later developed and approved which avoided use of the Lane altogether. In the case of Water House, this site has its sole access from the Lane and so it is acknowledged by all parties that construction vehicles for any development or refurbishment here will have to use the lane and thus inevitably there will be some disruption and nuisance caused to users of the lane. Thus it is considered that a compromise has to be sought here due to the unique circumstances of the site.

- 6.89 Furthermore the latest CMP significantly reduces the size and number of movements of construction vehicles below the level proposed for Fitzroy Farm. The latter had about 15-20 vehicles per day over 22 tonnes using Millfield Lane with a greater frequency (possibly every 15 minutes), whereas the Water House CMP now only proposes a maximum of 8 vehicles daily and only one per hour with none over 25 tonnes. This cap on numbers applies to all vehicles, whereas with Fitzroy Farm it only applied to HGV lorries. Also the banksmen strategy was less sophisticated with lorries allowed to travel up to 10mph. Finally the scheme proposed a temporary new road surface along the whole Lane to accommodate the extra weight of lorry movements, which was a more significant physical intervention to that now proposed for the Water House.
- 6.90 Nevertheless, despite these differences, it is considered that the following quote from the appeal decision is useful in highlighting continuing concerns regarding the current proposed use of the Lane by heavy construction traffic and its harmful impact on the lane's character and users, given that the Lane is well used by pedestrians for leisure purposes and that it has a quiet rural ambience. The Inspector concluded that "*On Millfield Lane, I consider that the frequent incidence of heavy vehicle movements, and the noise and fumes they would cause over a prolonged period, would materially disturb the widely appreciated tranquillity of this enclosed semi-rural environment. Temporary works to protect the surface, if implemented, would further detract from the lane's appearance and character. Serious harm to people's enjoyment of the lane and its nearby attractions would result. I refer above to the risk that some may well be deterred from visiting the lane or, for example, the Ladies Pond, thereby restricting their normal leisure opportunities*".
- 6.91 In conclusion, having reviewed the latest revised CMP (Rev L) and the new information provided in connection to the impact on surface of Millfield Lane, it is considered that the redevelopment scheme and its associated construction requirements is unacceptable from a transport and amenity impact perspective. The vehicular movements would cause physical damage to the Lane and its trees; any mitigation measures to prevent this could also cause visual harm to the lane, detracting from the users' enjoyment of the lane in this sensitive setting; there is no guarantee that such measures will be implemented as they may require consent from other landowners, such as the City, who object to any changes to the Lane. Finally the access arrangements at the site's entrance would also cause harm to trees, amenity and safety here and are unworkable without adjoining landowners' agreement.

7. CONCLUSION

- 7.1 The demolition of the existing neutral building is acceptable. The replacement house is considered appropriate in terms of its scale, bulk and layout on the plot, and in its detailed design. The character and appearance of this part of the Highgate Conservation Area will therefore not be detrimentally affected. The openness of the site and surrounding Private Open Space and of views from the adjacent Heath and Metropolitan Open Land will not be detrimentally affected.
- 7.2 The new building will meet sustainable credentials and will not harm neighbour amenities or parking conditions, subject to a S106 requiring car-capped housing. However in the absence of an approved scheme, the lack of a S106 clause on this forms a reason for refusal.

- 7.3 It is considered that the impacts on the majority of retained trees on or adjacent to the site are minimised and that the proposed removals are justified. However it has not been demonstrated adequately to officers' satisfaction that the veteran oak tree will suffer no significant harmful effects from the development and it is felt that there is insufficient evidence in the final arboricultural report to categorically state that the tree will not suffer significantly. Consequently this forms a reason for refusal.
- 7.4 It is concluded, on the basis of advice from the Council's consultant engineers, that the final revised BIA is adequate in demonstrating that the scheme will not harm local hydrology, geology and land stability conditions, and that any drainage overflows will not harm the Lane and Heath. It is considered that a Basement Construction Plan (BCP) within a S106 will ensure that further studies are undertaken to the Council's satisfaction regarding detailed drainage design and construction method statements for the boundary wall, as recommended in the BIA review. However in the absence of this S106, it is likely that the scheme would harm local hydrology and land stability and this forms a reason for refusal.
- 7.5 It is acknowledged that the circumstances regarding this site and its construction access rights on Millfield Lane are unique and that a compromise will have to be made between allowing some development here and ensuring no serious harm from construction traffic to public safety and to the lane's character. The final revised CMP with its considerably detailed access strategy is an adequate attempt to minimise such risks and harm as far as possible. However the access arrangements at the site's entrance itself would cause harm to users of the Ladies Pond and could harm trees and character of the Lane; this forms a reason for refusal.
- 7.6 Moreover, on the basis of new information on CBR data regarding the surface of Millfield Lane, it is considered that the construction access would cause physical damage to the Lane's surface and harm the longterm survival of the adjoining trees. It is also considered that, in the absence of further information to demonstrate otherwise, the necessary mitigation measures to prevent such damage would also be likely to be harmful to the rural landscaped character and appearance of the lane. Consequently this forms a reason for refusal.
- 7.7 In the absence of an approved scheme with a S106 requiring financial contributions for improvement works to the public highway on Merton Lane, as well as requiring a financial bond with landowners for repairs to private Millfield Lane, this forms a reason for refusal.
- 7.8 Finally Conservation Area consent for demolition of the house would have to be refused in the absence of an approved scheme for its replacement, as demolition on its own would be likely to result in harm to the character and appearance of the Conservation Area.

7.9 LEGAL COMMENTS

- 7.10 Members are referred to the note from the Legal Division at the start of the Agenda

Reason(s) for Refusal: 2011/4390/P

- 1 It is considered that, on the basis of submitted CBR data taken from Millfield Lane, the proposed intensive use of the lane for construction traffic would cause physical damage to the Lane's surface and would harm the longterm survival of the adjoining

trees along the lane. It is also considered that, in the absence of further information to demonstrate otherwise, necessary mitigation measures to facilitate construction access, such as ground guards and vegetation pruning, would be likely to be harmful to the rural landscaped character and appearance of Millfield Lane and the wider conservation area. This is contrary to policies CS11 (Promoting sustainable and efficient travel), CS14 (Promoting high quality places and conserving our heritage) and CS15 (Protecting and improving our parks and open spaces and encouraging biodiversity) of the London Borough of Camden Local Development Framework Core Strategy and policies DP20 (Movement of goods and materials), DP21 (Development connecting to the highway network) and DP25 (Conserving Camden's heritage) of the London Borough of Camden Local Development Framework Development Policies.

- 2 It is considered that the proposed access by construction vehicles at the site's entrance, by reason of the associated vehicular movements within Millfield Lane, is likely to cause harm to users of the Lane and Ladies Pond and may cause harm to adjoining trees and thus the landscaped character and appearance of the lane and conservation area. This is contrary to policies CS5 (Managing the impact of growth and development), CS11 (Promoting sustainable and efficient travel) and CS15 (Protecting and improving our parks and open spaces and encouraging biodiversity) of the London Borough of Camden Local Development Framework Core Strategy and policies DP20 (Movement of goods and materials), DP21 (Development connecting to the highway network), DP25 (Conserving Camden's heritage) and DP26 (Managing the impact of development on occupiers and neighbours) of the London Borough of Camden Local Development Framework Development Policies.
- 3 In the absence of sufficient evidence in the arboricultural report to demonstrate adequately to the Council's satisfaction that the veteran oak tree (T5) on the site will not be significantly harmed, it is considered that the development and its construction would harm the longterm survival of the tree which has a high amenity value, which would be detrimental to the character and appearance of Millfield Lane and the wider conservation area. This is contrary to policy CS15 (Protecting and improving our parks and open spaces and encouraging biodiversity) of London Borough of Camden Local Development Framework Core Strategy and policy DP25 (Conserving Camden's heritage) of the London Borough of Camden Local Development Framework Development Policies.
- 4 The proposed development, in the absence of a legal agreement securing a Basement Construction Plan requiring appropriate detailed drainage design, construction method statements, and mitigation and monitoring measures, would be likely to harm local hydrology, geology and land stability conditions and would cause harm to the built and natural environment and local amenity. This is contrary to policies CS5 (Managing the impact of growth and development), CS14 (Promoting high quality places and conserving our heritage) and CS19 (Delivering and monitoring the Core Strategy) of the London Borough of Camden Local Development Framework Core Strategy and policy DP27 (Basements and lightwells) of the London Borough of Camden Local Development Framework Development Policies.
- 5 The proposed development, in the absence of a legal agreement securing car-capped housing, would be likely to contribute unacceptably to parking stress and congestion in the surrounding area and fail to promote more sustainable and efficient forms of transport. This is contrary to policies CS11 (Promoting sustainable and efficient travel) and CS19 (Delivering and monitoring the Core Strategy) of the

London Borough of Camden Local Development Framework Core Strategy and policies DP17 (Walking, cycling and public transport), DP18 (Parking standards and the availability of car parking) and DP19 (Managing the impact of parking) of the London Borough of Camden Local Development Framework Development Policies.

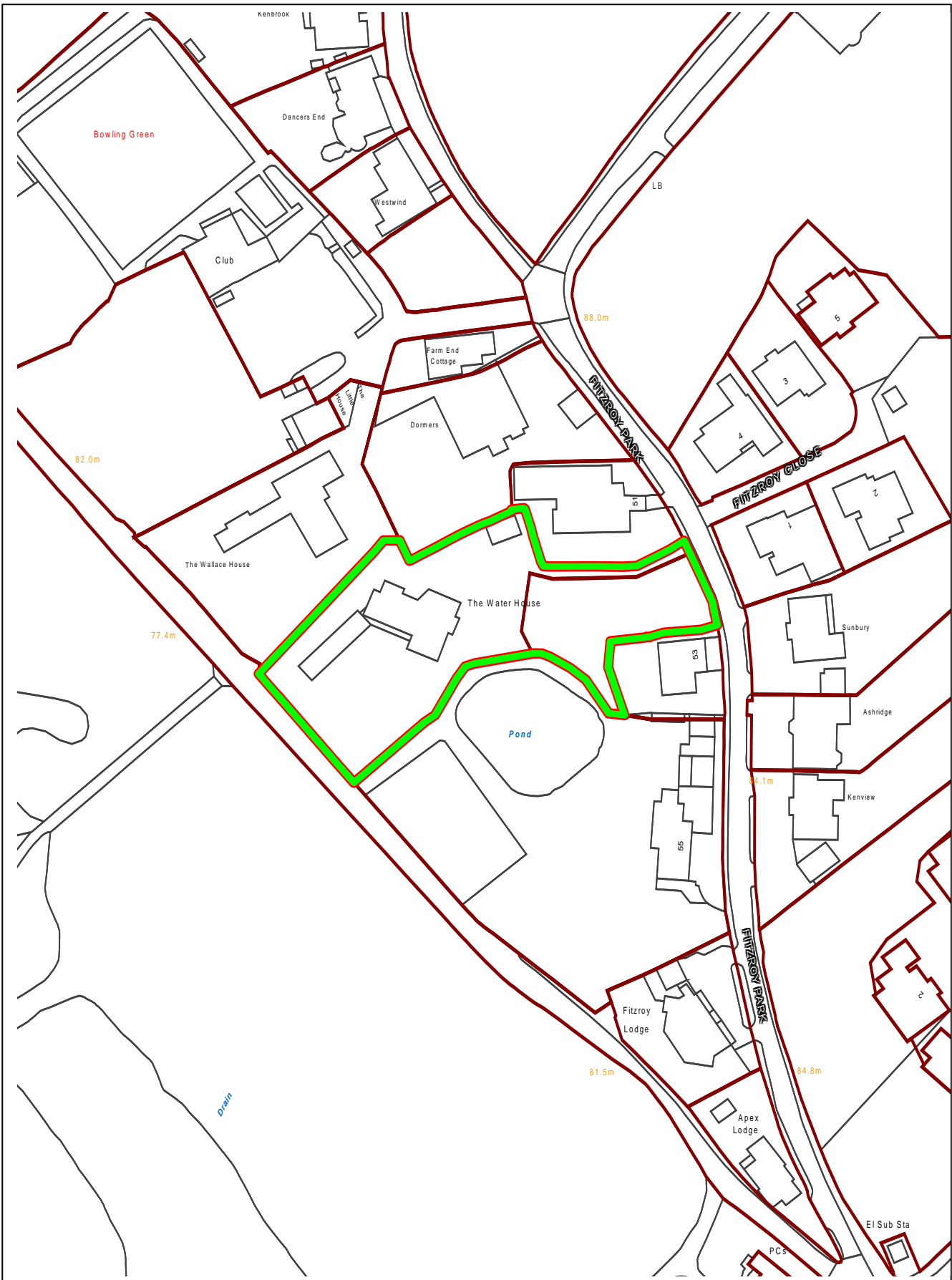
- 6 The proposed development, in the absence of a legal agreement securing necessary highway works of resurfacing and pedestrian safety measures to mitigate the impacts of construction traffic, both on Millfield Lane and Merton Lane, would fail to secure adequate provision for and safety of pedestrians, cyclists and vehicles. This is contrary to policies CS11 (Promoting sustainable and efficient travel) and CS19 (Delivering and monitoring the Core Strategy) of the London Borough of Camden Local Development Framework Core Strategy and policies DP17 (Walking, cycling and public transport) and DP21 (Development connecting to the highway network) of the London Borough of Camden Local Development Framework Development Policies.

Informative(s):

- 1 Without prejudice to any future application or appeal, the applicant is advised that reasons for refusal numbered 4-6 could be overcome by entering into a Section 106 Legal Agreement for a scheme that was in all other respects acceptable.

Reason(s) for Refusal: **2011/4392/C**

- 1 The demolition of this building in the absence of an approved scheme replacement would be likely to result in harm to the character and appearance surrounding Conservation Area, contrary to policy CS14 (Promoting high places and conserving our heritage) of the London Borough of Camden Development Framework Core Strategy and policy DP25 (Conserving Car heritage) of the London Borough of Camden Local Development Framework Development Policies.



Application No: 2011/4390/P

**The Water House
Millfield Lane
London
N6 6HQ**

**Scale:
1:1250
Date:
24-Mar-16**

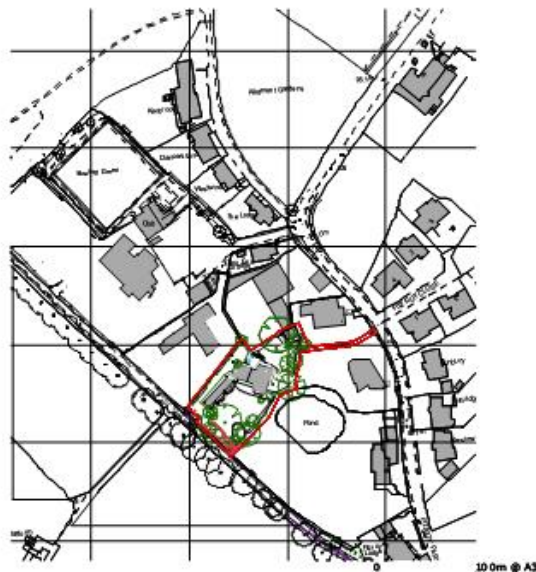


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Site location



AERIAL VIEW OF WATERHOUSE, MARKED LAND LAYOUTING.





Front elevation



Rear elevation



Rear garden outhouse ^

front garden oak tree >





Millfield Lane outside entrances
to site and Ladies Pond ^

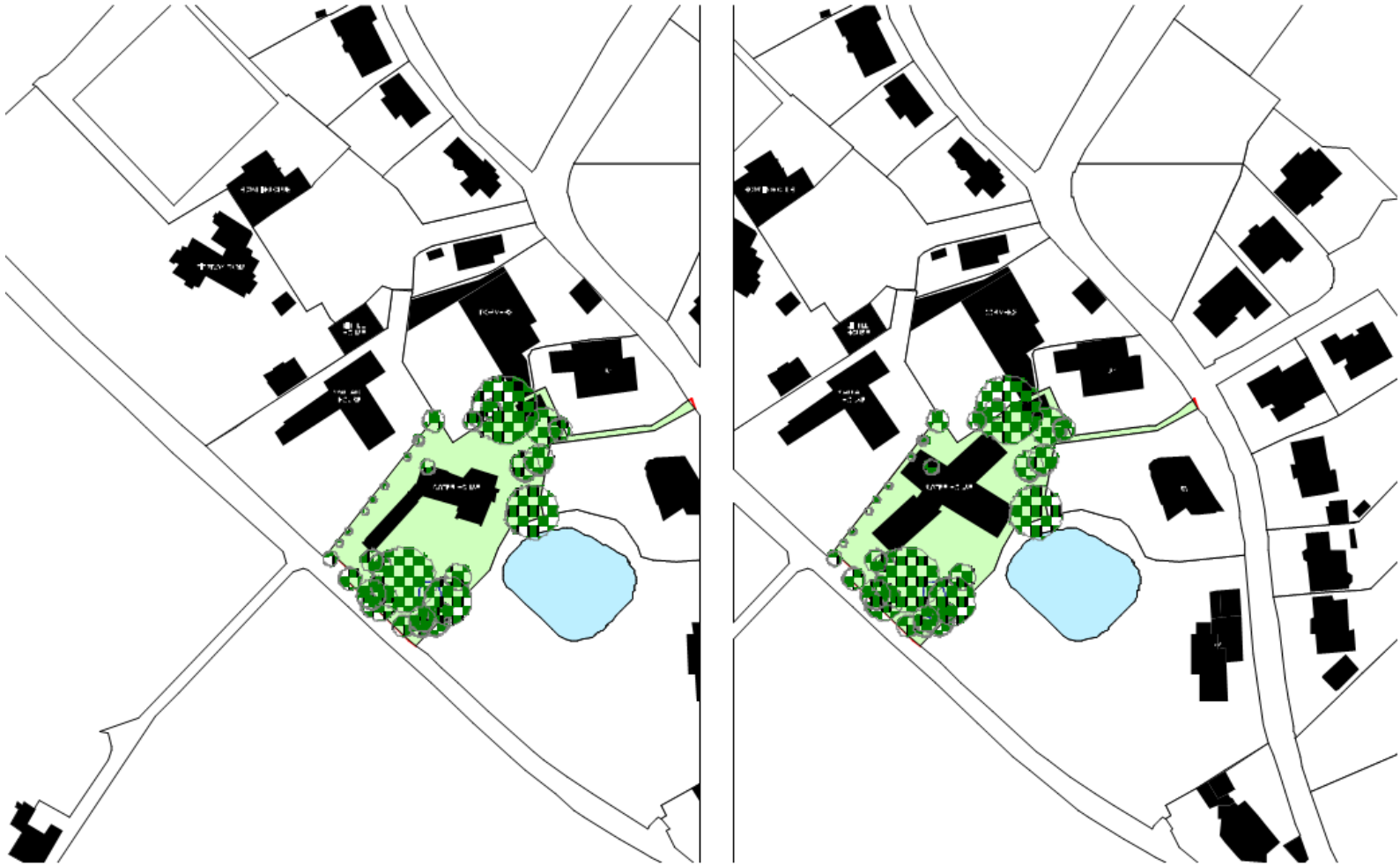
and further south >



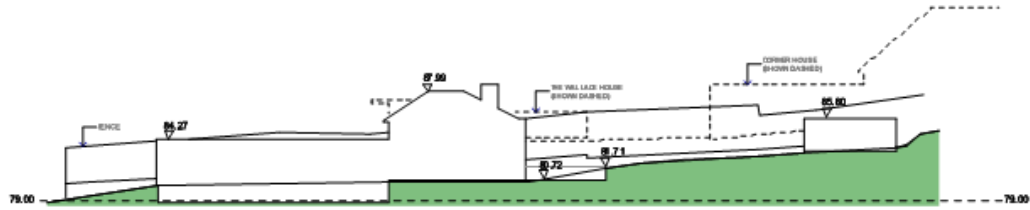


Millfield Lane near junction with
Fitzroy Park/Merton Lane
looking north ^ and south >





Existing and proposed site plans



SCALE 1/8"=1'-0"
EXISTING SITE SECTION A-A



SCALE 1/8"=1'-0"
EXISTING SITE PLAN

Existing site plan



THE WALLACE HOUSE

THE WATER HOUSE (PLANT)

THE WATER HOUSE (KITCHEN)

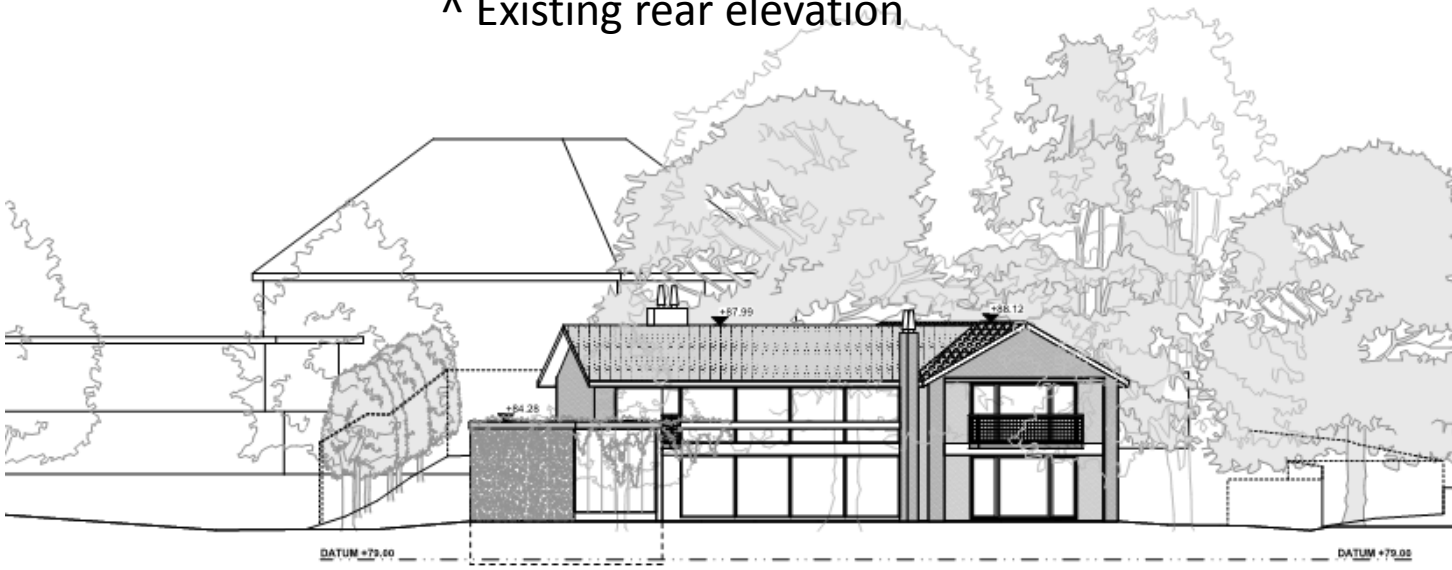
Existing ground floor plan

POND



8-01
TING NORTH ELEVATION

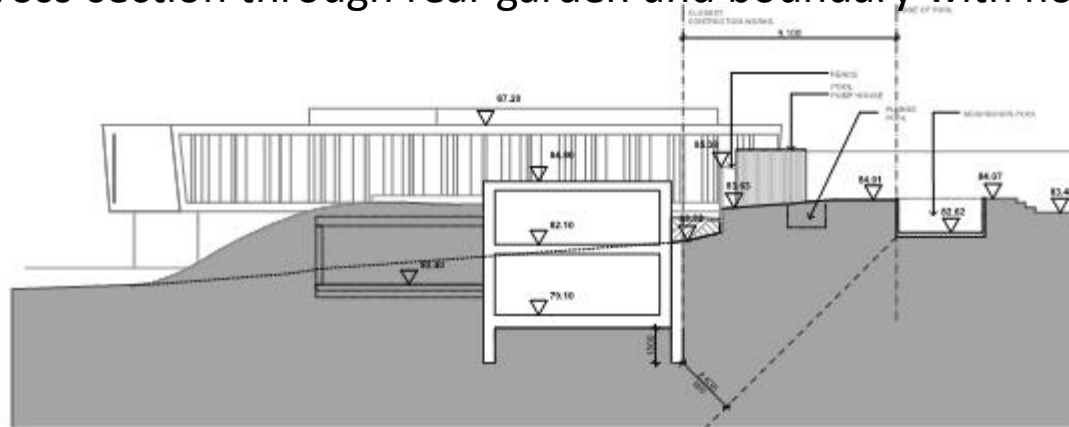
^ Existing rear elevation



8-01
TING SOUTH ELEVATION

^ Existing front elevation

Cross-section through rear garden and boundary with no.49



SECTION B1-B1

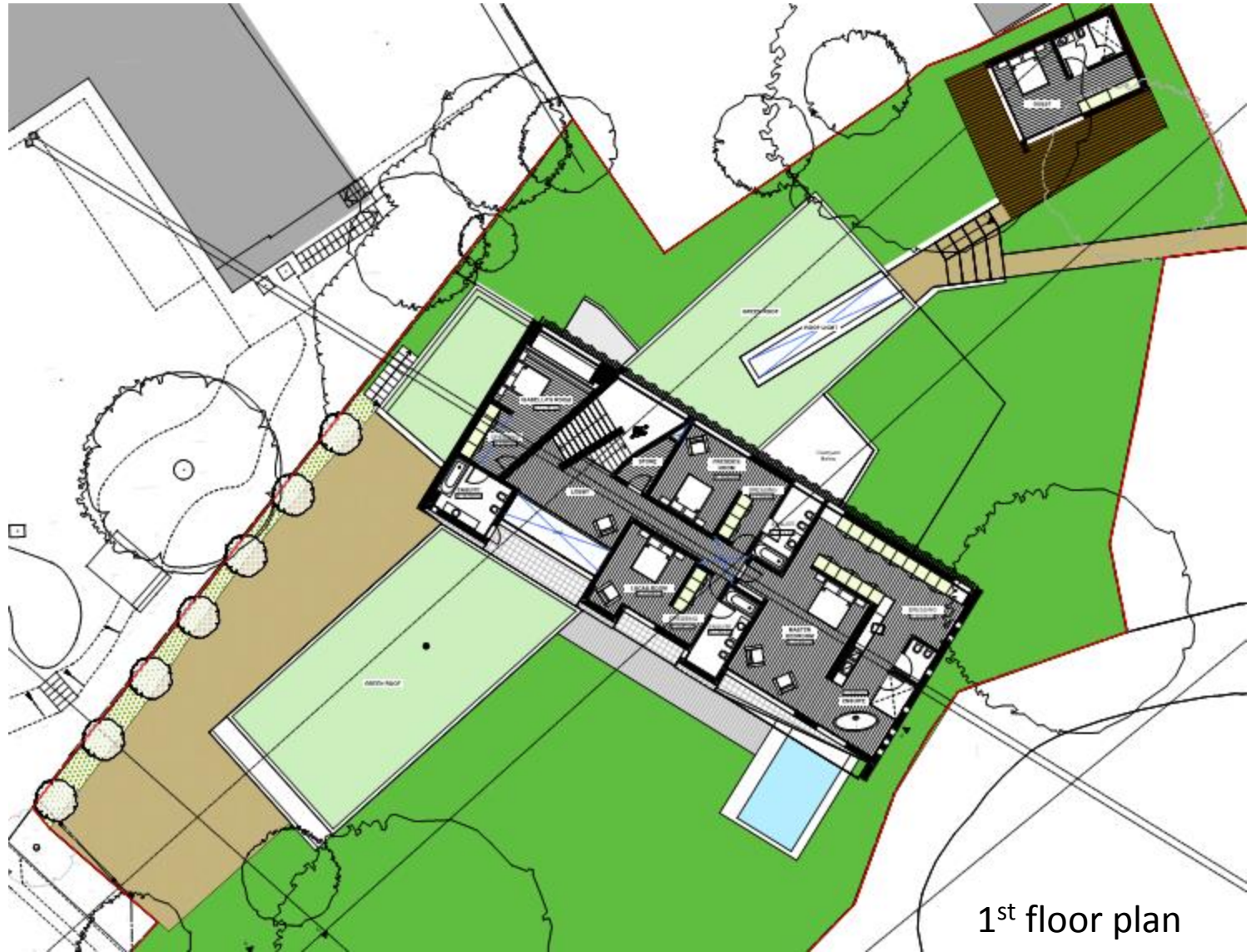


Basement floor plan

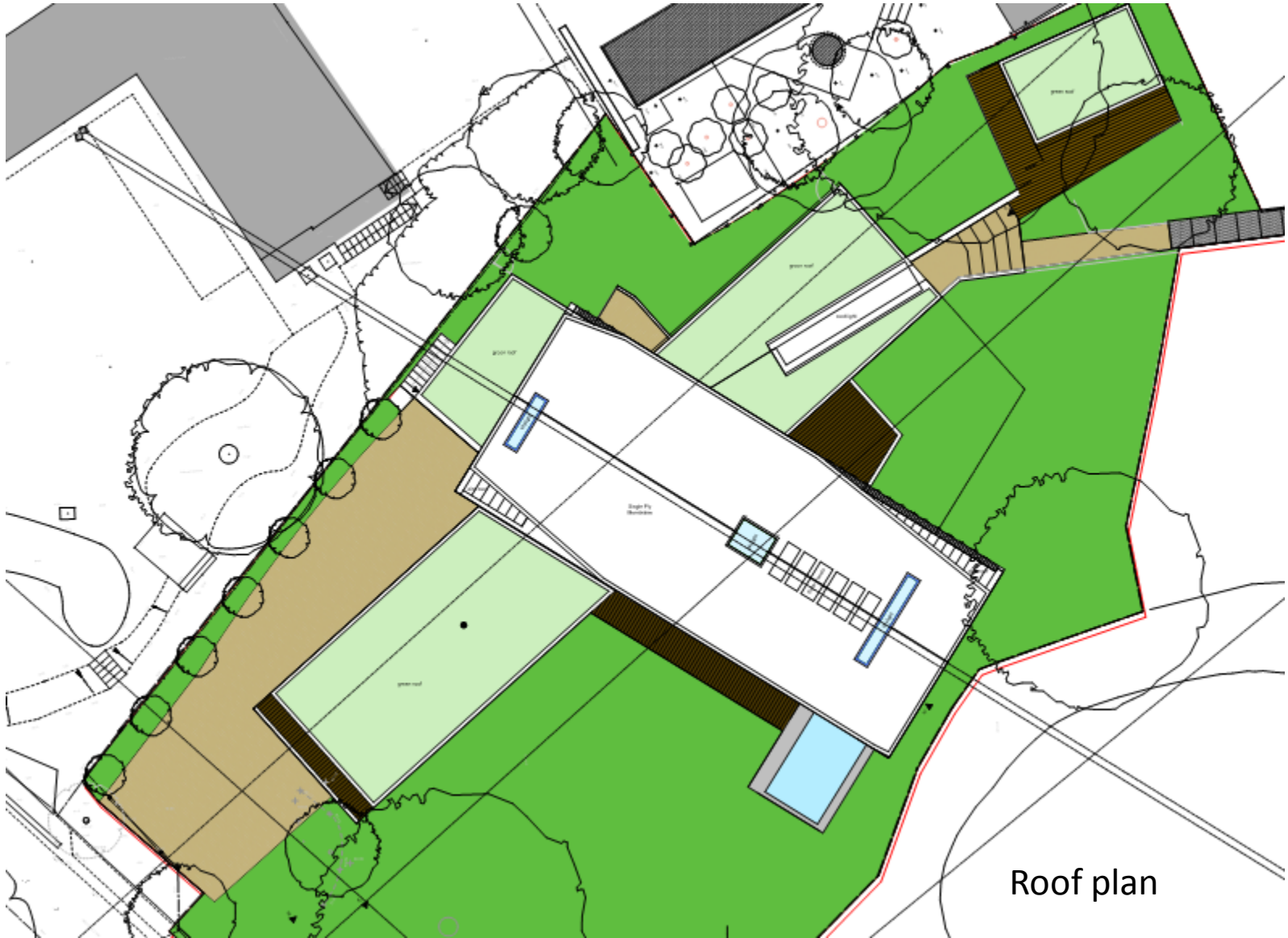




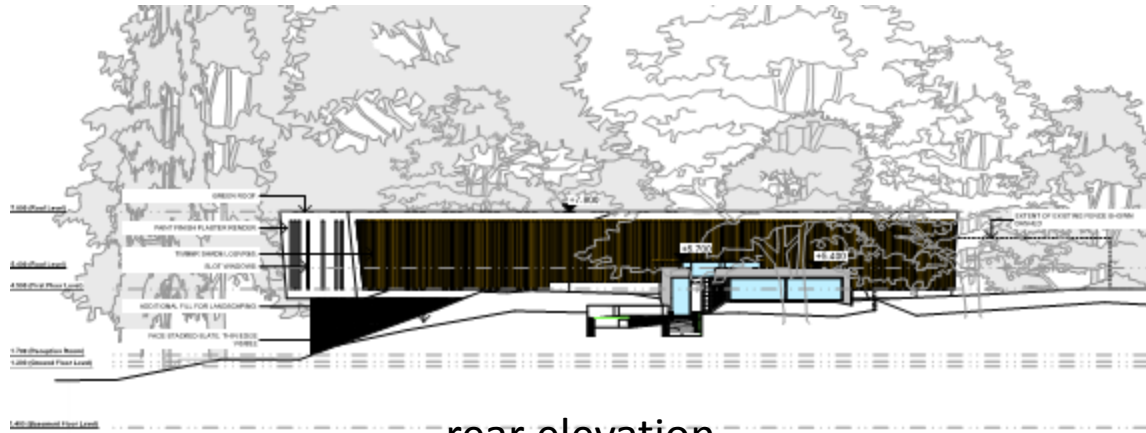
Ground floor plan



1st floor plan

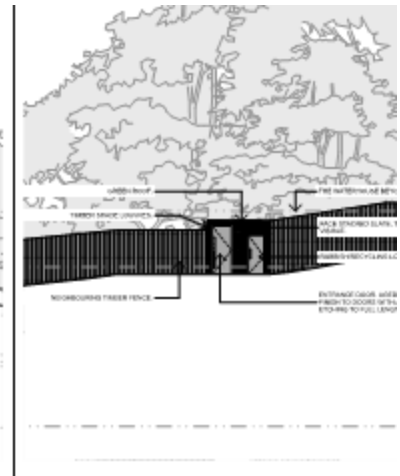


Roof plan



rear elevation

SCALE 1:100 @ A1
NORTH ELEVATION

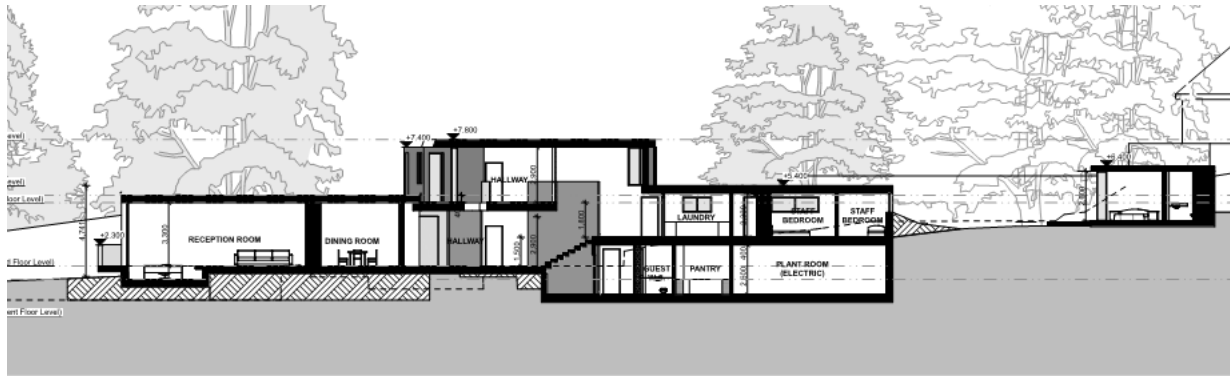


2 SCALE 1:100 @ A1
FITZROY PARK ELEVATION



Front elevation

SCALE 1:100 @ A1
SOUTH ELEVATION



ION CC

Long sections C & D



ION DD

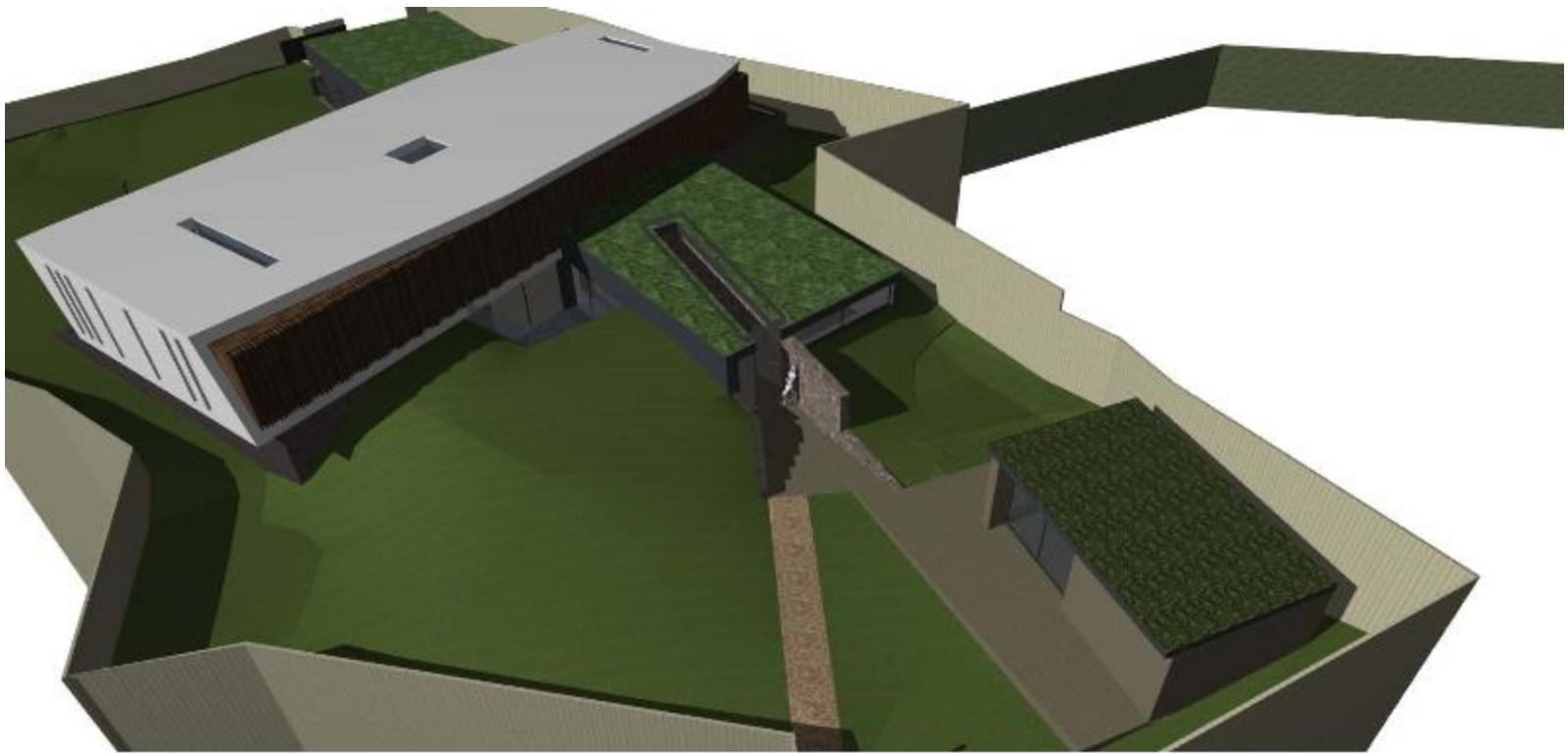


CROSS SECTION AA

Cross sections A & B



CROSS SECTION BB



Montage of rear garden and outhouse



Montage of front elevation



Aerial views of existing and proposed looking west



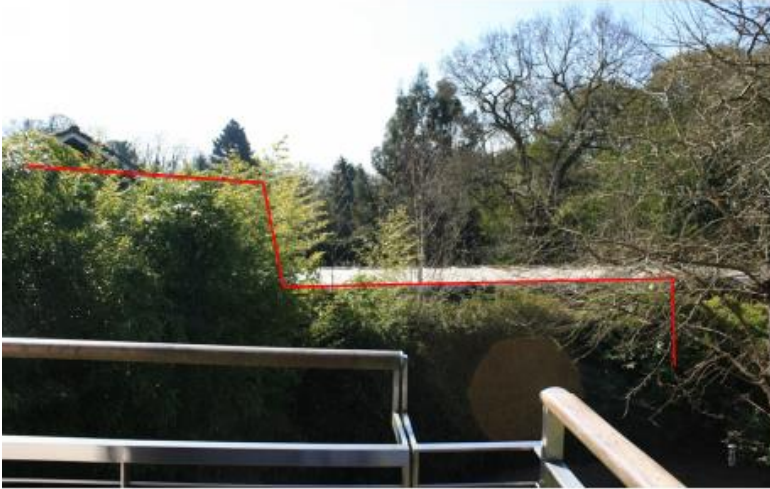
Aerial views of existing and proposed looking east



2.



Views from Heath



SGV 1. View from the upper terrace of Wallace House



SGV 2. View from the rear terrace of Dormers

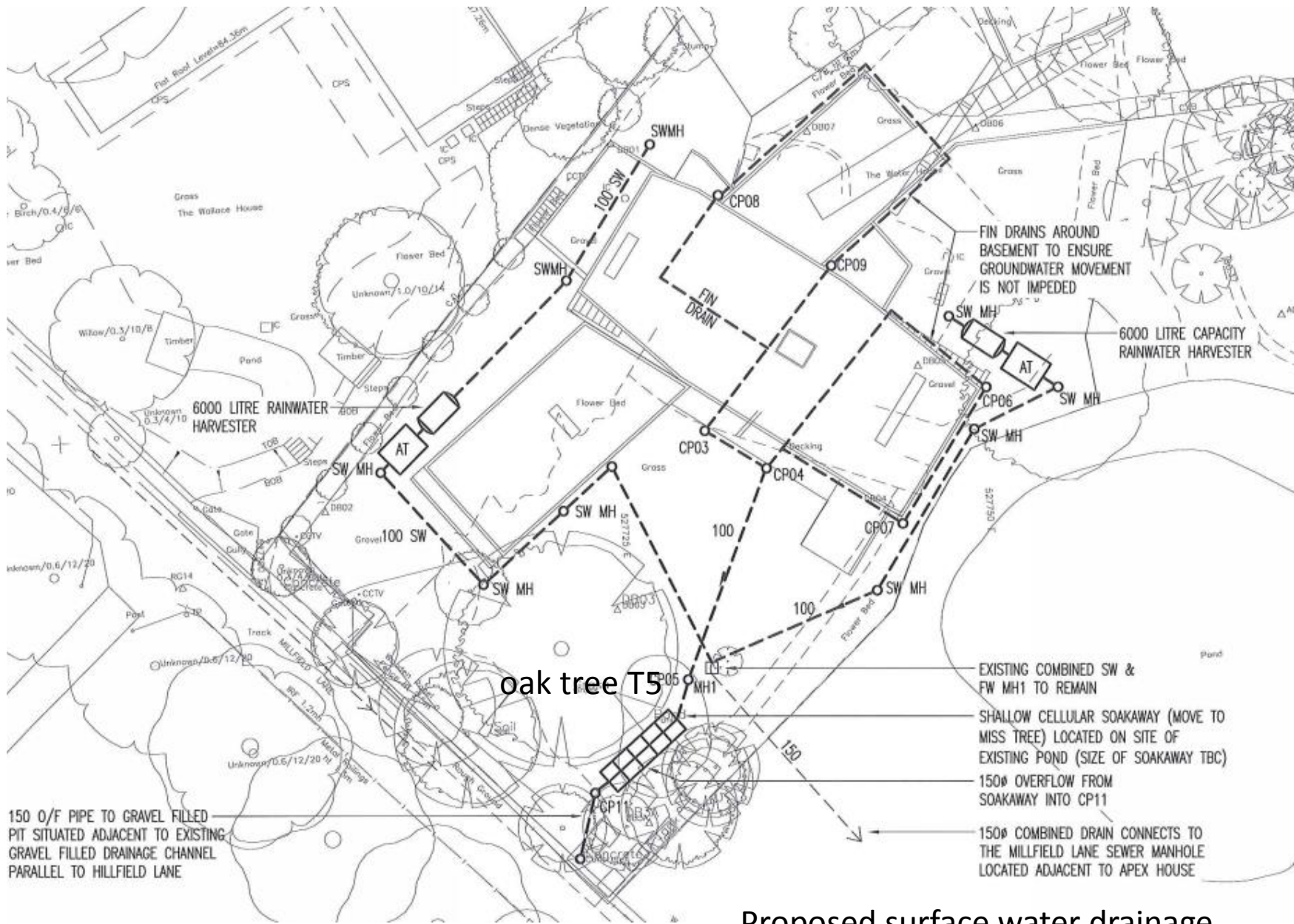


SGV 3. View from the entrance to the Ladies Pond



SGV 4. View from Millfield Lane

Views from neighbours and Millfield Lane- red line denotes proposed profile



FIN DRAINS AROUND BASEMENT TO ENSURE GROUNDWATER MOVEMENT IS NOT IMPEDED

6000 LITRE CAPACITY RAINWATER HARVESTER

6000 LITRE RAINWATER HARVESTER

oak tree T5

EXISTING COMBINED SW & FW MH1 TO REMAIN

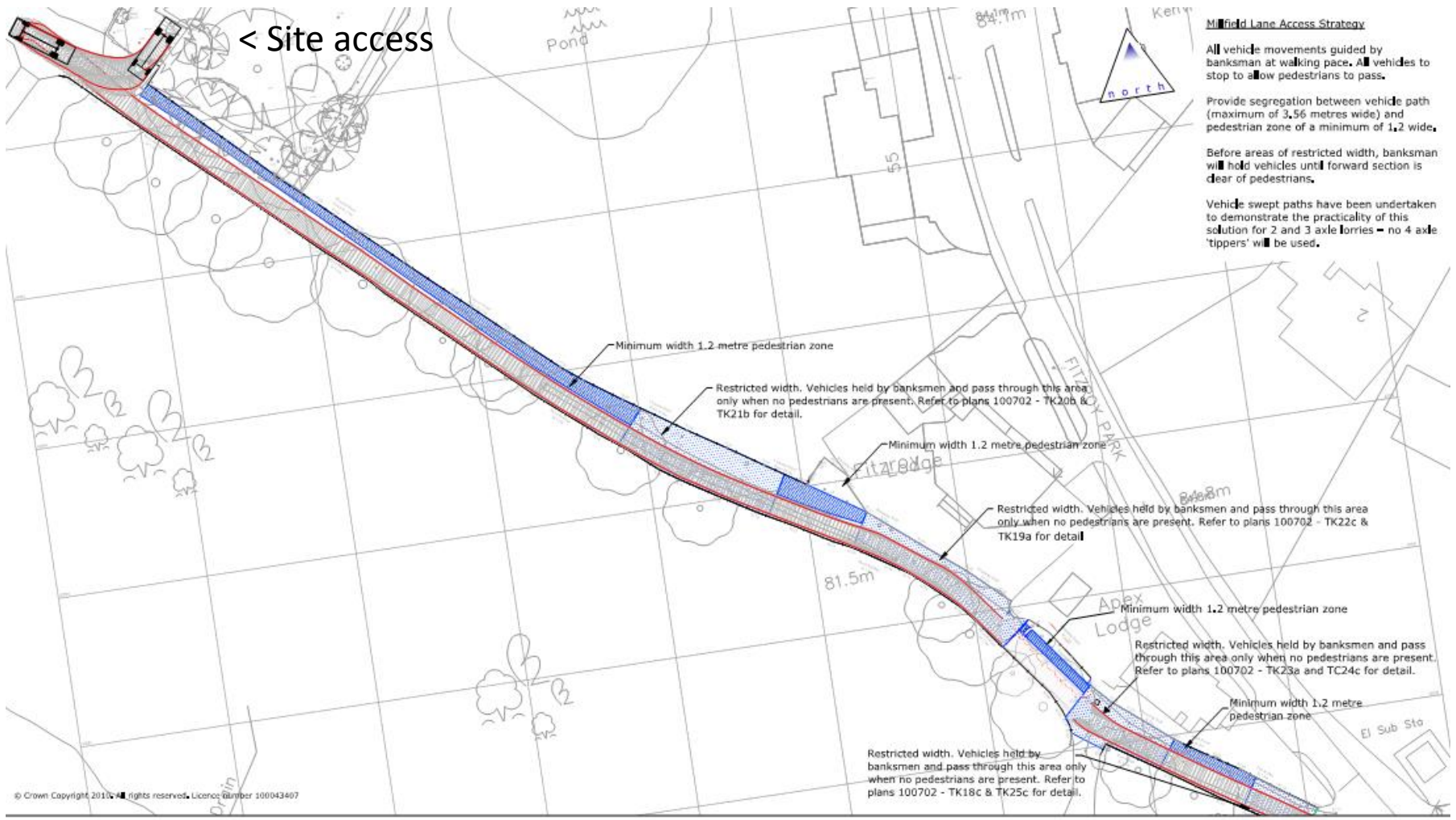
SHALLOW CELLULAR SOAKAWAY (MOVE TO MISS TREE) LOCATED ON SITE OF EXISTING POND (SIZE OF SOAKAWAY TBC)

150Ø OVERFLOW FROM SOAKAWAY INTO CP11

150Ø COMBINED DRAIN CONNECTS TO THE MILLFIELD LANE SEWER MANHOLE LOCATED ADJACENT TO APEX HOUSE

150 Ø/F PIPE TO GRAVEL FILLED PIT SITUATED ADJACENT TO EXISTING GRAVEL FILLED DRAINAGE CHANNEL PARALLEL TO HILLFIELD LANE

Proposed surface water drainage



Millfield Lane Access Strategy

All vehicle movements guided by banksmen at walking pace. All vehicles to stop to allow pedestrians to pass.

Provide segregation between vehicle path (maximum of 3.56 metres wide) and pedestrian zone of a minimum of 1.2 wide.

Before areas of restricted width, banksmen will hold vehicles until forward section is clear of pedestrians.

Vehicle swept paths have been undertaken to demonstrate the practicality of this solution for 2 and 3 axle lorries - no 4 axle 'tippers' will be used.

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Millfield Lane CMP access strategy

Legend

- Pedestrian zone
- Pedestrian pinch point

"The Water House", Millfield Lane Swept Path Analysis
8.7m Rigid Vehicle Accessing Site

Scale (@A3) 1:500
100702-TK15 Rev C