




Dear Sir,

I have received no reply to my email of 29th August about this application, nor seen my objection appear on the Planning Application Search website. I am therefore sending it to this email address to see if this is more effective.

Best wishes

Vicki Harding



Dear Sir,

I have attached my objection to this application and its latest changes and additions.


Best wishes

Vicki Harding

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Tree Officer Heath & Hampstead Society



2012/5825/P 8 Pilgrims Lane London NW3 1SL

I wish to submit an objection to this application and its latest changes under 4 headings:

1 Trees and Garden

From Design & Access Statement:

12.6 The proposal is in general accordance with the basement guidance and policy DP27 insofar as:

- It would be largely confined to the existing building footprint and would not result in loss of 50% of the front garden. A substantial rear garden would be retained.

Comment: The rear garden has already been essentially lost to terracing. Taking garden away from 3a Downshire Hill through purchase has meant some garden has been added to the site, but at the expense of the garden for 3a Downshire Hill. A paved terrace is not a building; this basement is not only under the footprint of the house. In no way is this garden retention; it is overall considerable loss for all parties and a large negative factor considering SUDS. All this for a 'Playroom' and garden storage.

I have concerns about the Arboricultural report.

From the 'Revised Arboricultural Report, April 2013'

05.09

SUPERVISION

Supervision by an arboriculturist is a desirable (but not always essential) element of site development where trees are present and to be retained. Good communication between site agent and arboriculturist can reduce the need for such a measure. I propose that this takes place at key points in the construction process, and additionally whenever required by the architect or LPA.

Such previous practice in Hampstead gave a very poor outcome. The arboriculturalist will know of the case of Sarum Chase West Heath Road development where 52 trees were felled >7 years ago, one without permission, and still awaiting re-planting. The one remaining tree of outstanding historic, amenity and biodiversity value was inadequately supervised. Materials were stored and heavy machinery parked over the entire Root Protection Zone (RPZ); layers of geotextile and protection over an extremely reduced RPZ were damaged by diggers; putting up standard RPZ boarding for this reduced RPZ had to be enforced, but were later removed and not replaced. It would appear the arboriculturalist and the developer did not communicate about the tree root's agreed aeration and watering. The result is the most magnificent canopy in Hampstead has since required much removal of dead wood, for 3 years now the tree has flushed very poorly each spring, and the canopy is visibly much sparser. I believe that history will repeat itself here; the application should be refused.

While B.S. 5837: 2012. Section 5.1.1 notes:

"Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification : attempts to retain **too many or unsuitable trees** on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal."

- this is hardly an appropriate phrase to reproduce in this application. An unestablished magnolia is not a substitute for an existing, established and very suitable and beautiful cherry.

The arboriculturalist's argument that the cherry tree is not of great visual amenity and deemed C2 is not appropriately supported by his photograph of the tree taken at an angle to reduce its view from the road and partly hidden by his car. This cherry tree is also visible from Downshire Hill. I understand another arboriculturalist has made an impartial evaluation of this tree and deemed it B2.

The purple plum is described as moribund when in fact the neighbours in 4 Downshire Hill have in the past suggested it be pruned as it is so vigorous and growing into the Thuja. It provides very important screening for houses in Pilgrims Lane and gardens in Downshire Hill, including the garden purchased by 8 Pilgrims Lane.

2 Flooding

I am also seriously concerned by this application's approach to flooding.

Application

Will the proposal increase the flood risk elsewhere? No

How will surface water be disposed of? Main Sewer

Run-off

Climate change is now producing much more unpredictable weather patterns as can be seen in the Hampstead rainfall figures for 2002-2011 (<http://www.weather-uk.com/page2.html>). Rainfall over the last 10 years has seen an annual average increase in Hampstead to 710.76mm and with much wider variation. Due to its topography the Hampstead Heath area can experience heavier bursts of rainfall and experiences significantly higher annual rainfall than say Heathrow. The local hydrogeology means these effects are more widely experienced. While Pilgrims Lane and Downshire Hill were both spared in the local flood-inducing storms of 1975 and 2002, their topography ensures that run-off from both streets travels east directly into the areas that did seriously flood: South End Green, East Heath Road, Fleet Road, Willow Road etc. This proposed development will increase this run-off.

For Home Check Professional[7] to conclude that "flood risk at the property is negligible" is only partly relevant. The flood risk for homes to which rainwater runs-off from the site is very relevant (see attached photograph from 2002). This application should be refused on the basis of this local risk alone, as proposed in Camden's (2003) Floods Scrutiny Panel 4.12 *Controlling basement conversions*, and enacted in its own DP23 and DP27.

Ground water issues

There are also concerns that during periods of heavier rainfall, the proposed granular drainage layer under the basement development will not be able to cope so that the basement provides a barrier to ground water flow, even if this is intermittent rather than continuous. This will cause drowning of the trees in the neighbouring gardens and washing out of neighbouring house and roadway foundations. Non-local engineers tend to suggest this constrained and diverted water is re-directed back into the sewer system to prevent this. However this means that additional groundwater would join the surface water in a system already unable to cope during heavy rainfall.

The application also gives no indication as to how siltation of the granular drainage layer would be prevented in the longer term. This is a particular concern for drainage within the Claygate Beds as there is a considerable quantity of silt within the clay: it is continually moved downhill by the action of ground water – as can be observed by the high incidence of large pot holes and collapsed roadways in the area. Silt can be washed out, but it can also be washed in.

Incidentally the site is right over the 'at risk' area on the GIS Map of Area of potential landslide vulnerability (attached). The calculations made in the Ground Movement Report presuppose the site is completely dry and all ground water disposed of. This is unlikely considering the underlying geology – and as occurred when digging under 22 Christchurch Hill. Here, water under pressure was encountered causing a lake below the development and the neighbouring building to subside considerably. It took 18 months for the incoming water and lake to be controlled, during which time water had to be continually pumped into the waste water system. Slip surfaces within this ground that was compressed and sheered by glaciers during the last ice age – one of the considerations of the GIS Map of Area of potential landslide vulnerability - are not even mentioned.

3 Inadequacy of BIA

In the BIA it is stated that

Owing to almost total urbanisation of the area over the past 100 years, very little natural (uncontrolled) drainage now remains (with the exception of the Heath itself) and almost all surface water drainage now takes place through the storm sewer system. The enclosure of streams and rivers within culverts eliminated those watercourses as features on the surface, drainage and runoff are still largely controlled by topography.

The 1920's Geological Map (Figure 5) shows a tributary of the Fleet passing approximately 200m north of the property ... It is not marked on the 'Lost Rivers of London' map or on the historical Ordnance Survey maps[4].'

I believe this indicates that the (anonymous) authors of this BIA are unfamiliar with the behaviour of subterranean water in this area as it flows down from the Bagshot sand areas of upper Hampstead, through the Claygate Beds and also through the band D layer of the London Clay Formations; they would not have been part of the Arup team who produced the Arup report 'Camden geological, hydrogeological and hydrological study: Guidance for subterranean development'.

Other basement developments in Hampstead have come across much ground water, some in sand partings under pressure and causing serious flooding of the site and subsidence damage to neighbouring properties. The roadways and services – particularly Thames Water - are frequently collapsing due to the action of groundwater washing out silt volume from below their foundations. This generally occurs in the areas above band D of the London Clay Formation – such as this development. In addition, this development is on the spring boundary line also shared by *Well Road* and *Well Walk*. Owners of many rear gardens of Pilgrims Lane south side report they are usually waterlogged in winter when the high water-use trees planted or retained to help reduce this spring water have lost their leaves.

The entry of a tributary of the eastern arm of the Fleet into the (no longer existing) lowest surface pond on the Hampstead chain - that now runs under Keats Grove - is marked on the 1866 Ordnance Survey map. (There are 2 further minor tributaries - running roughly west to east - north of this before the tributary mentioned in the BIA that follows the south side of Willow Road.) A related conduit was discovered during recent work on the garden of Keats House, and the back-projected course of this tributary according to the local topography passes east south east in this very region of Pilgrims Lane. The water strike in the window sampler at 1.15 metres is going to be draining into this. Five bore holes and 8 trial pits would be a reasonable test spread on other geology, but a 10-foot wide tributary running east south east between boreholes and trial pits could easily pass unseen here.

BIA: "A small number of groundwater levels recorded during site investigations have been used to calibrate the model."

Arup have already admitted that:

6.2.4 Although, three monitoring points are available they are unfortunately aligned, making determination of the direction of groundwater flow difficult.

In addition, the initial ground investigation by GEA was performed in November 2010 and 3 weeks later. Rainfall data for November and December 2010 can be seen in Table A.

A supplementary ground investigation was carried out 21st February 2012 by Listers with Groundwater monitoring on three occasions up to 10th April 2012. Rainfall data for this period can be seen in Table A.

Table A: Rainfall in Hampstead – monthly totals compared to monthly averages 1971-2000. <http://nw3weather.co.uk/wxhistday.php>

	Rainfall mm	1971-2000 monthly averages
November 2010	39.4	61.6%
December 2010	32.4	49.1%
February 2012	19.2	30.5%
March 2012	26.7	52.4%
up to 10.4.12	15.7	80.0% of part month av

The 2 monitoring visits 3-weeks apart in Nov/Dec 2010 and 3 visits 21st February-10th April 2012 were therefore performed during unseasonably dry periods. It is thus inappropriate to calibrate a model for the BIA on such data, and the application should be refused for this reason.

It is stated (BIA 7.2.2) that their calculations of what could happen if the basement were dug with no mitigation for ground water is a "worst" case. I disagree. It is based on borehole data obtained during unusually dry seasons, and with physical gaps between measuring points that could easily contain water under pressure: far from comprehensive, far from a worst case scenario which is essential for such an extremely risky situation for immediate neighbours. Based on experience of living in Hampstead where ground water flow and courses change from one year to another either side and over the Claygate Beds, I contend even one year of systematic and regular measurement in such a position on a spring line is insufficient to produce a model that sufficiently mitigates against risk.

4 SUDS

When the SUDS legislation is strengthened, terraces such as currently exist in the garden of 8 Pilgrims Lane - whose run-off drains to areas that significantly flood - will be required to be made permeable. This is particularly important here since the Claygate Beds soil make-up has much larger water-retaining properties than London Clay and contribute significantly to reducing run-off. Building outside the footprint of a house in this area takes out huge volumes of water-retaining soils, having a very negative effect on SUDS. This application also reduces the number of trees and tree canopy, reducing their current action to hold and slow site rainwater run-off to the sewer system.

From BIA 3.1. Screening Checklists:

It was acknowledged that the proposed site drainage of surface water flows could "potentially" be materially changed from the existing route (2); that the proposed basement will "potentially" result in changes to the profile of the inflows (instantaneous and long-term) of surface water being received by adjacent properties or downstream watercourses (4); *would* result in a change in the proportion of hard surface/paved external areas "to be addressed by a SUDS assessment" (3) and would "increase" ... the "Amount of hard standing at the rear of the property", and "the proposed design will incorporate an appropriate drainage design, including SUDS as necessary, to fully eliminate this risk"...

Also:

3.2.1 Surface flow and flooding

The additional impermeable ground and hard landscaping included in the development may result in changes to the quantity and timing of surface water runoff.

The impact on storm drainage systems and consideration of Sustainable Urban Drainage Systems (SUDS) to mitigate the impact of changes in runoff due to changes in the area of hard surfacing will be considered as part of the planning application, separate to the basement impact assessment.

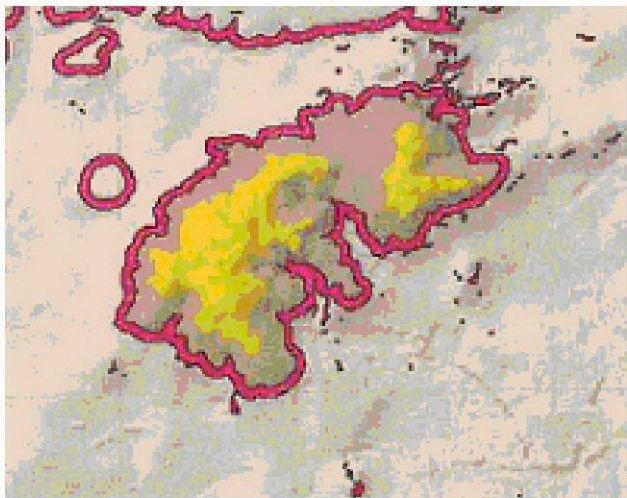
Despite these promises, no SUDS report has been presented in the planning application. One suspects because such an assessment would demonstrate that the proposed development goes against current government SUDS policy, and as such should be refused.

Conclusion

I propose that a position exactly over on a geological boundary line involving Claygate Beds and in a previously (18th century) marshy area with several tributaries of the river Fleet, that drains into an area with contemporary significant and repeat flooding, is not where a basement should be dug unless complete ground mapping of the whole site has been performed to prevent nasty surprises. It should also, with all this risk, only be built if absolutely essential and worth the risk to neighbours and householders 'down-river'. With the flying freehold there is no wiggle room for foundation movement, but the BIA and subsequent ground investigation reports have not taken ground water into account in their calculations - particularly not water under pressure if this is found - only the effect of building stresses during low rainfall periods.

This unsustainable, carbon expensive, flood promoting, property damaging, tree killing and street blocking work could be avoided by using a shed in the garden and getting the children to play outside in the garden rather than underground indoors.

Please refuse.



GIS Map of Area of potential landslide vulnerability, Based on causative landslide factors; geology, slope angle, hydrology and know landslide activity



St. Michael's Health