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2020/5695/P	A Straker	06/02/2021 17:30:02	OBJ	The new side entrance at basement level creates separate self-contained accommodation and this is out of keeping with defining the character of the Holly Lodge Conservation Area.  The light wells proposed will look out of place, be visually obtrusive and are not part of the prevailing character of the area. The absence of light wells on the Holly Lodge Estate helps define and reinforce the prevailing character of the neighbourhood.  This development will harm the appearance of the established character of the Holly Lodge Estate  Conservation area and will have an adverse effect on its architectural quality and heritage significance. This Conservation Area requires protection to ensure that the special values it brings to the London Borough of Camden, and Highgate in particular, are not harmed or lost.  There is need for a practical balance between the legitimate desire of the owner to improve his property and the equally legitimate desire of neighbouring residents to enjoy peaceful occupation of their homes. With an excavation on this massive scale, disruption and disturbance goes well beyond that involved with classic renovation works.  The upper slopes of Highgate have high groundwater saturation and an exceptional geological structure.  The proposed deep excavations on this steep hill will disturb the underground streams and water courses, including tributaries of the Fleet river, and this will lead to adverse effects on neighbouring properties and those down the hill.

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2020/5695/P	James & Deborah	05/02/2021 17:14:43	OBJ
	Crowley		

### OBJECTION TO MASSIVE UNDERGROUND BASEMENT at 58 HILLWAY

We would like to register our objection in the strongest possible terms to this high-risk application. This would be an unreasonable, damaging and disruptive development. It would cause inestimable subsidence risks to neighbouring properties, disruption of natural underground streams as well as enormous disruption and safety risk during excavation & construction. Should it proceed, it would set a hugely dangerous precedent - multiplying these risks for the future, in this historical conservation area, next door to the older part of the historical Highgate Cemetery.

Also below, we have added a few comments to some of the obvious inaccuracies of the so-called 'Impact Assessment'. This report has many obvious errors even to an untrained eye - clearly the intention is to use a known brand (Arup), with a generic, voluminous, cut-and-paste document to steamroll over the substantial risks and local concerns.

Expanding briefly on each of our four concerns.

SUBSIDENCE RISK: This excavation would create an enormous risk of subsidence in nearby properties, both during and post construction. The existing natural water table (which is very close to surface) ... will drop 4m+ causing a huge risk of compaction in the Claygate Soil and subsidence in neighbouring properties. As a civil/structural engineer, I believe this is likely lead to serious compaction, downhill and uphill - for many properties on this very steep road (gradient approx 12.5 degrees).

At this location, we know from our own bitter experience that the ground water table is within 0.5 to 1m from the surface. In the excavation of foundations for a rear conservatory at our property at No 60 (one door uphill from no 58) between May to June 2019 - we were forced to halt construction as the foundation trench filled continuously with water .. Thames were called out at the time, since we suspected it must have been the result of be a leak. However, after a series of thorough investigations, they confirmed that the trench was merely filling with normal ground water from local area. Thames Water Case Reference - Case 31301301 (Leigh)

REROUTING of UNDERGROUND STREAMS/FLOWS: The excavation and construction of this monstrous basement will cause unknown and inestimable effects on the water table and underground water streams in this historic area, which has a well known network of underground water systems connecting to the Fleet River. These streams link directly with the historic Highgate Cemetery - West, which is less than 50m from the proposed excavation. This is a precious historical and natural habitat, whose trees and shrubs may be severely affected by this change to ground water flows - also potentially impacting the stability of the beautiful and historic tombs and monuments in the cemetery.

ENORMOUS DISRUPTION: This large scale construction - which will involve the removal in excess of 500+ cubic metres of underground soil. With with a bulking factor for clay of 25%+, this will equate to hundreds of skips will cause unacceptable disruption in this area for over a year. In addition, the side road where Oakshott connects to Hillway, is already very congested as it provides access to all of the flats on Oakshott, and also to the busy Holly Lodge Nursery, which is directly opposite No 58 on the Oakshott side. This will cause widespread inconvenience and unreasonable disruption. The stream of trucks will be a major safety hazard to young children coming and going every day to this busy nursery.

PRECEDENT: Last but not least, this, we believe this application is a hugely dangerous precedent for the

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				fabric of this community - as, we believe, being the first application of a full underground basement in the estate. If it goes ahead it will inevitably lead to a wave of others similar projects. This will ruin the atmost of this community estate - turning the estate into a permanent building site for the next 20+ years.  This risk, would be fly in the face of the policy of the the local organisation - The Highgate Society - who (quote) "Highgate occupies an area of high groundwater saturation, compounded by the presence many underground streams and tributaries to the Fleet River. The Society is anxious to control the spreamega-basements throughout the Conservation Area, particularly given the documented impacts such prohave on neighbouring properties and gardens, as well as forward planting schemes".	sphere state of ad of
				The Basement Impact Assessment	
				Also, we had a look at the basement Impact Assessment and noted several inaccuracies. Very happy to discuss or host a visit of the planning team as useful.	
				PHOTO at No 60 - Directly uphill of No 58.	
				Photo of builders trying to remove water from foundation at No 60, in June 2019. Work suspended for 6 weeks so Thames Water could confirm that it was indeed normal Ground water. Note the building ove wall in photo is the site of the proposed development at No 58. Thames Water Case Reference: 31301 (Leigh)	r the

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2020/5695/P	Mr. Vivek Rattan	08/02/2021 10:27:48	OBJ	08/02/2021 Objection by Mr. Vivek Rattan (No.56 Hillway) to Planning Application 2020/5695/P for the Proposed Construction of a Basement Dwelling under No.58 Hillway.
				1.0 Summary of Objection by Mr Vivek Rattan (No.56 Hillway) to Planning Application 1.0.1 My name is Vivek Rattan and I own No.56 Hillway (No.56) which is the neighbouring plot to No.58 Hillway (No.58 / The Applicant).
				1.0.2 No.58's proposed basement will be 3.5m deep extending below my foundations and very close at 1.2m for from my property along the length of our boundary.
				1.0.3 The planning matter was initially brought to my attention whilst I was overseas, by my neighbours at Nos. 54 and 63 Hillway. I subsequently received a text message from the Applicant stating that an application had been made, followed by an email leading me to the link on London Borough of Camden's website. No prior consultation whatsoever, had taken place, as required by LB of Camden guidelines.
				1.0.4 I have sought advice from a Civil Engineer who specialises in subterranean structures to provide me with independent assessment on this highly technical and complex matter. The Engineer's detailed assessment, which includes potential damage to my property both during construction and thereafter (section 2) and a review of the construction impacts (section 3), follows.
				1.0.5 I have no axe to grind with the Applicant at No.58 and we have always maintained an excellent relationship as neighbours. I do however have concerns on how MY property and utilities along the boundary will be affected physically and I financially. For these reasons alone, having taken independent advice, I am compelled to OBJECT to this planning application.
				1.0.6 I also have concerns that by adding an external entrance to the proposed basement No.58 are potentially creating an independent tenement, with an entrance absolutely adjacent to my party wall. In addition, to potentially breaching a covenant in the plot holders agreement for Holly Lodge Estate (HLE), this will also have severe implications on my privacy and noise nuisance level for years to come.
				1.0.7 As the Applicant is aware, I rent my property on a time to time basis. The last rental was over a two month period ending recently on 15 January 2021. Monies earned through rental income finances my mortgage. The construction work is most likely to render my house incapable of being rented for several months for which I would need to seek compensation from the Applicant.
				1.0.8 Provisions for compensation for potential damage and maintenance to my property during the works and in the long term will need to be made. This would be in the form of financial bonds funded by the Applicant and included in undertakings on No.58 for any future owners.

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2.0 Summary Comments of the Building Damage Assessment Impact on No.56

2.0.1 The basement proposals by the Applicant at No.58 are currently conceptual. The corresponding Building Impact Assessment (BIA) has adopted an "optimistic" approach to assessing the damage to my property No.56 (please note, BIA part 2 is incomplete). We disagree with the conclusion made in pp.43 of the

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BIA that the analysis is Conservative.

2.0.2 This BIA is highly dependent on the works not causing more than 0.5mm settlement to my property. The assumptions and qualifications in the BIA do not adequately demonstrate this level of control is achievable. Therefore, the predicted risk of damage to my property (No.56) of category 1 is not justified.

- 2.0.3 A sensitivity analysis undertaken independently by my Civil Engineering Consultant, indicates that my property (No.56) will be in a higher damage risk category of 2 or even 3 during construction. I therefore disagree with the conclusions presented in the BIA. It is too optimistic and not compatible with the current level of design uncertainties and assumptions.
- 2.0.4 The BIA appears only to considers the risk of damage to my property during the basement construction phase. The Applicant confirmed at our meeting on the 03/02/21 that movement monitoring of my property would only be undertaken during the basement construction phase. The BIA is therefore incomplete and underestimates the risk of damage to my property.
- 2.0.5 The BIA and Applicant have not considered nor discussed protection provisions against long term damage to my property that will arise from changes to the permanent ground loads and groundwater. This will further add to and increase the risk of damage to my property, leaving me with long term maintenance liabilities.
- 2.0.6 The statement on pp39 BIA should be very clear that Camden's Local Plan (2017) requirements for basement construction set out in Policy A5, requires the Applicant to limit damage to neighbouring properties to damage risk Category1 and not Category2 as implied.
- 2.1 Review of Ground Movement and Damage Assessment:
- 2.1.1 Comparison of the BIA ground movement predictions during construction (table 10.2), against CIRICA C760 (Fig6.15) shows the current analysis is predicting a very "stiff" response for the excavation. This cannot be justified against a basement design and construction methodology that are currently conceptual at best.
- 2.1.2 The restricted access requires "underpinning" of No.58 followed by a very complex "hit and miss" tunnel excavation method. The underpinning columns are required to support No.58 vertically and my property (No.56) laterally at the same time. Control of ground movements is highly dependent on the Contractor's workmanship (as qualified numerously throughout the BIA). The risk of damage to my property associated with design assumptions and workmanship errors (a real possibility) are not considered by any form of sensitivity analysis.
- 2.1.3 The vertical settlement of 0.5mm reported on my property in Table 10.2 is the key parameter that limits the predicted damage of my property to Category 1. A calibration of the BIA results against CIRICA C760 (Fig6.15) shows that the BIA analysis is "stiff" with regards to the lateral deflections, but "very stiff" (ie. above the stiff response line) in its vertical settlement response. We estimate that the corresponding settlement should be more like 3.5mm. The BIA analysis is potentially inconsistent underpredicting the vertical settlement. The "underpinning" form of construction and local ground conditions cannot be considered as "stiff" compared with CIRIA C760 where the types of walls considered are stiffer piled retaining structures.

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2.1.4 The proposed excavation runs along the complete boundary between Nos.56 and 58. The proposed basement is 3.5m deep and will be very close to my property at 1.2m from my foundations. Our calculations show that the predict range of settlement is between 5mm and 10mm. The maximum settlement under my property is not reported in the BIA. The horizontal strain and deflection ratio (CIRIA SP2000) were also recalculated using the actual width of my house (1.2m + 8.5m). It shows that my property would be in damage risk category 2 as a minimum or 3 in a low stiffness response.

- 2.1.5 The BIA and our meeting with the Applicant on 03/02/21 noted that no damage assessment has been undertaken for my utilities that may run along the boundary next to the excavation. Any damage to these services would render me liable for their repair, plus could present a significant safety risk if undetected (eg. gas leaks). Protection of my utilities has not addressed in the BIA.
- 2.1.6 The BIA concludes in pp.42 that the predicted ground movements should be treated as "construction limits". Construction limits cannot be set without a commensurate design that demonstrates these limits can be achieved. With the level of assumptions, qualifications and reliance on workmanship to limit ground movements, this BIA does not provide me with the evidence that the proposed works can be controlled to a level that would limit damage to my property to within risk category 1.
- 2.1.7 Damage impact assessment of my property due to long term changes in ground stresses and groundwater (porewater pressure) are not considered. Section 9.2.1 and 9.2.2 reports heave movements along my boundary that could be up to 7.5mm. It was not clear why the damage impact of my property from these long term movements are not considered, but at our meeting with the Applicant on 03/02/21, it emerged that their representative Contractor (Mr London Basement Company), only considers having responsibility for ground movement control during the basement construction phase. This indicates that the Applicant is unaware of their continued responsibilities to resolve long term damage to my property that could manifest themselves gradually over a very long period (circa 50 years). This will present me with long term maintenance liabilities. The BIA is therefore incomplete.
- 2.1.8 The Applicant has not discussed with me provisions to protect my property against damage in both the short and long term.
- 2.2 Wider Impacts and Long Term Liabilities
- 2.2.1 The Potential use of dewatering during construction is identified. Dewatering in Clays results in a very wide draw down of water table, beyond the 15m impact zone currently identified in the BIA. Conversely, if the water table drawn down is localised because of local geological conditions, this can amplify the differential movement on my property leading to greater risk of damage.
- 2.2.2 The long term waterproofing design of the No.58's basement is not discussed. My property is "downstream" of the basement. Changes caused by its construction to the water table and groundwater regime will result in long term damage and maintenance liabilities to my property. Camden's own Geological, Hydrogeological and Hydrological study Guidance for subterranean development report (Nov 2010) recognises these phenomena. This has not been addressed in the BIA.
- 2.2.3 Impacts from the wider global effects such as slope stability, are also not reported.
- 2.3 Proposed foundations and basement structure
- 2.3.1 The control of ground movements during construction will rely on lateral support provided by a retaining wall structure between my property No.56 and No.58. Currently there are no design drawings describing the

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proposed retaining structure. Only concepts are discussed in the BIA and at our meeting with the Applicant (03/02/21) a gravity wall structure was described which may not provide the assumed stiffness required to limit ground movements. This "underpinning wall" will be a complex composite structure that will require structural and geotechnical engineering input.

- 2.3.2 The impact of different foundation types of either deep strip footings or ground support basement slab are also not fully considered. It is currently assumed that strip footings are used at depth, which has the neutralising effect of reducing heave along my boundary. If the assumed foundation stresses are over estimated, this can result in different ground movements potentially changing the risk of damage to my property. No evidence of sensitivity analysis has been provided.
- 2.3.3 It is unclear what assessment or considerations have been incorporated into this basement proposal to address Camden's and hence the UK Government sustainability policies.
- 3.0 Summary Comment on the Draft Construction Management Plan Impacts on No56 and HLE
- 3.0.1 This Draft Construction Management Plan (CMP) has been submitted without prior engagement with No.56, nor establishment of a working group with other affected parties in the Holly Lodge Estate (HLE). It is therefore NOT COMPLIANT with Camden's planning Policy A5 and guidelines.
- 3.0.2 Reference to a "Contiguous Piling" construction method in this draft CMP is WRONG. The BIA and Applicant's representing Contractor (Mr London Basement Company) confirmed at our meeting on the 03/02/21 that "underpinning" construction method is proposed.
- 3.0.3 The review of this draft CMP identifies potentially UNSAFE proposals with the operation of the 26T Grab lorry on the slope (Hillway) and management of the public footway outside the site.
- 3.0.4 The draft CMP underestimates the environmental impacts the works will have on No.56, other HLE residents and Camden. The excavation alone is estimated to generate about 570m3 or 46skip loads of soil. 3.0.5 It is noted that a safety undertaking will be required by the Applicant in their capacity as the "Client" in section 17 making them responsible for compliance with the CLOCS standard. The issues highlighted by this review and inconsistencies found in this draft CMP suggest the Applicant is not fully aware of the proposal and the complexities associated with such a major undertaking. The Applicant should be made aware of their legal duties as the "Client", under the Construction, Design and Management Regulations (2015) Health & Safety Act.

### 3.1 SITE

- 3.1.1 Section 7 states a "Piling" form of construction using contiguous micro pile is proposed. This is WRONG. An underpinning construction method is proposed due to the lack of space between No.56 and No.58. This is noted in the BIA and confirmed by the Applicant at our meeting on the 03/02/2021.
- 3.1.2 The 39 week project programme reported in section 8 is inconsistent with the 43 weeks used to in the construction logistic planning (Appendix 6). Irrespective, the total programme is long and potential delays could impact No.56 over 2 consecutive summers.

#### 3.2 COMMUNITY LIAISON

3.2.1 The preparation on this Draft CMP is NOT COMPLIANT with Camden's planning process as set out in the CPM guidance and Camden's Basement Planning Guidance cl5.3. NO consultation with No.56 or other affected parties has been undertaken by the Applicant prior to the submission of this planning application. Section 11 provides no evidence of meetings being held with affect parties prior submission of this draft CMP. The Applicant notes that consultation will be undertaken AFTER the submission of the draft CMP. Highly

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technical documents offered to affected parties via the planning portal, without prior consultation, demonstrates that the Applicant does NOT appreciate the impact and magnitude of this undertaking.

Nevertheless I, No.56 (affected party) have now engaged with the Applicant, other neighbours and the HLE. I have also sought advice from a specialist Civil Engineer (Tunnels and Sub-Structure) on the submitted documents.

3.2.2 Section 12 again does not recognise the impact the proposed works will have on No.56 and others. The BIA notes that No.56 will be at risk of damage from ground movements, therefore structural condition surveys and structural monitoring of No.56 will be required. No.56s meeting with the Applicant on the 03/02/2 revealed that only short term monitoring during the basement construction is being considered, albeit this is not noted in the Draft CMP. Furthermore, the Applicant was not aware of provisions that may be required for risks during construction, such as damaging utilities (not identified in section 27, therefore no provision in draft CMP) or excavation collapse. The BIA notes that there are long term ground movements and therefore risk of damage to No.56. The applicant has provided no indication of provisions that will be made to protect No.56 and others during the works and from long term impacts. These provisions may require a separate S106 agreement or similar. Camden's Planning Policy A5 recognises the complexity of basement developments and encourages security of expenses to adjoining neighbours.

### 3.3 TRANSPORT

- 3.3.1 The estimated excavation programme is 12 weeks; which by our estimate approximates to a 1.2m advance rate of the tunnel excavation followed by the casting of a 1m wide reinforced concrete propped supporting pillar. This underpinning "hit and miss" propped construction method is required to protect No.56 from ground movement damage. Based on this, the Applicant's estimate of 5 Grab lorry visiting each week (1 lorry per day) is underestimated. Looking at both excavated tonnage and volume, with a bulking factor of 1.35 to represent Clay / Gravel, we estimate that 7 visits of the Grab lorry per week would be required during the basement excavation period. This means that 2 days during the week, there will be 2 visits by the Grab lorry rather than the 1 visit throughout the week reported in this draft CMP.
- 3.3.2 Using the information provided in the draft CMP section 19, the peak vehicles no of 40/month that is used in the Construction Logistics Planning Tool (Appendix 5) appears to be significantly underestimated. As noted previously there is no provision for General Waste Skips or Contractor's vehicles. We estimate peak vehicle load to be about 101No/month allowing for 1 general waste skip/month and 2No. Contractors vehicles/day (The Contractor, London Basement Company is not based in Camden). At the peak of excavation, one would see 10 extra vehicle / lorry movements each day along Hillway and through pinch-points such as Swains Lane where there are cafes and shops.
- 3.3.4 It is proposed that 1No. static 16 yard skip (Appendix 8 and meeting 03/02/21) is provided and emptied daily by a 26T Grab lorry. The footprint provided for the Skip outside No.58 is 10m long by 2m wide (Section 19d). The proposal appears to be based on the skip being picked up and replaced rather than emptied by the Grab lorry as confirmed by the Applicant. Use of a Grab lorry would require it to park along side of the skip then use its grab to empty the skip. Furthermore, the working space in front of the muck skip is likely to be occupied by an additional general waste skip that currently is NOT allowed for. The total width occupied of Hillway when the Grab lorry is operating, will be about 6.2m, requiring additional parking outside No. 61 and 63 to be suspended. This is not identified in section 19c.

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3.3.5 The skip is located on Hillway which is on a steep slope. At No.58 and 56 the gradient of this slope is about 15%. In section 21, there is NO consideration of the HEALTH & SAFETY risk with positioning a skip on a steep slope. If the skip location remains on this slope, a flat platform is needed to ensure the skips are stable. NO consideration has been given to the SAFETY of operating a 26T Grab lorry on a 15% slope.

- 3.3.6 In section 19c, the conveyor for moving the excavation muck into the skip, crosses the public footway outside No.58. It is described as being "retractable allowing the footway to be unobstructed when not in use". At our meeting with the Applicant on the 03/02/21, a different system was described that encloses the conveyor in a bridge spanning over the footway (no mention in section 26a either). This would not require the closure of the footway. The solution to this critical element is unclear and not considered adequately in relation to safety and gaining permission from HLE to cross the public footway. If safe routing for the conveyor cannot be established, it could extend the construction duration (double handling) or even render the scheme un-constructible.
- 3.3.7 There is insufficient consideration in section 19e about the additional working and storage spaces required. The current proposal from our meeting on the 03/02/21 is that the front garden will be used, whilst retaining the main entrance to No.58. The shaft providing access into the basement construction and the conveyor route are also located in the front garden. It has already been noted that a general waste skip will be required. During the "hit and miss" basement construction, small volumes of concrete will need to be batched on site. There is no indication on the plans of the additional construction access points, where construction materials are being stored, concrete batched, rebar assembled, site welfare and offices. It is therefore likely the No.58's garden and footway facing Hillway will be in heavy use throughout the day, directly impacting No.56 entrance.

### 3.4 ENVIRONMENT

- 3.4.1 HLE will is be very sensitive to any environmental changes because the ambient baseline condition is very quiet and clean. The responses in the draft CPM to noise levels, vibrations, dust, etc. totally under estimates the environmental impact these works would cause to No56 and others in the HLE. It once again reflects the Applicant's poor understanding of the magnitude of this undertaking.
- 3.4.2 It is unreasonable in section 30 to say the anticipated construction noise will not exceed that of a vacuum cleaner at 75dB and vibration is not anticipated to be an issue when major underpinning works below the foundation level will be undertaken. Note, this draft CMP incorrectly states the use of piling but still does not acknowledge noise and vibration from this activity. It is also noted that the Applicant's Construction Advisor, has had a Noise Control Notice raised against them by the Royal Borough of Kensington and Chelsea in March 2019 (SRCON/19/233827) and should therefore be fully aware of noise and vibrations caused by basement works.
- 3.4.3 A statement in section 34 of "no significant" dirt will be spread on the highway is unreasonable. The skips will be emptied daily by a Grab lorry where spillages are inevitable. This will be exacerbated by the site being at the top of a slope where material will naturally wash down to No.56 and others below on the HLE.
- 3.4.4 The statements of "no significant / low impact" of dust in sections 36 and 38 are again unreasonable given there will be approximately 46No. skips (16 yards) of Clay to be excavated and removed, potentially during the summer when the Clay will dry out.

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