



The Heath & Hampstead Society

The Society examines all Notices of Intent for tree work relating to Hampstead and Hampstead Heath Fringes, and assesses them for their impact on the Conservation Areas, the local environment and building stability.

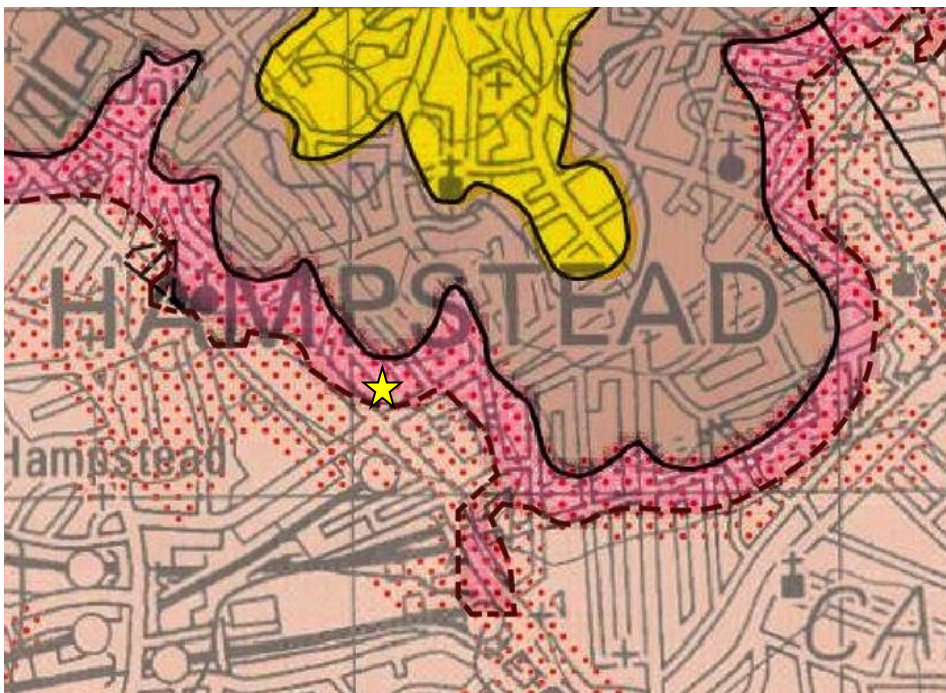
To London Borough of Camden, Tree Preservation Team

Planning Ref: 2020/5783/T
Address: Camden Arts Centre
Case Officer: Tree Allocation Team
Date: 5th February 2021

Despite evidence for other reasons for this serious cracking being given in my previous objection, this has been ignored and the previous mistakes repeated. I am not going to repeat all the points in my previous objection, merely summarise them and add further evidential factors that have emerged this last year.

Geological Factors

Since the last application and objection from the Heath & Hampstead Society (H&HS) we have had a map made combining the geological features of the British Geological Survey (BGS) map '1:50 000 series North London Sheet 256 Bedrock and Superficial Deposits' which include the Head Propensity (crimson stippling), an OS map and the BGS map of 'Areas of Greatest Potential for Slope Instability' (solid crimson area below the grey/brown Claygate Beds). This confirms that Camden Arts Centre on the NW corner of Arkwright Road and Finchley Road is right on this crimson area. The history of the effects of widening the Finchley Road in the 60's is in the previous H&HS objection.



★ Camden Arts Centre

Trial Pits 1 and 2 presented in the 'Factual Report' show that the foundations are not bedded into the stiff clay but at the base of the 'Head' solifluction, a layered and complex Quaternary deposit with brick rubble also within, described in the Factual Report as medium compact ground. Head is known to be highly unstable and in wet weather or during mains water bursts will soften as the pore pressures increase. The base of the foundations are also at the level of the aquifer at the base of the Head, fed by the spring line only

a very short way up the hill that will flow downhill along the top of the Unit D of the London Clay Formation lying beneath the Head. Thus, the building is founded on a potentially very unstable ground, on a steep slope far steeper than the angle at which clay slides, and with much silt within it that is erodible by the groundwater in the aquifer here.

Rainfall and the Movement Monitor Readings

This Notice of Intent provides a more extended period of movement monitoring, but rather than being automatically gathered and continuous, the data has continued to be obtained on merely occasional visits. Looking at the table provided it is clear that this is very puzzling. The effect of one reading in one place markedly skews the impression given by the table. Take out the green No. 3 site's reading on 27th November 2019 and the whole table is unremarkable, with minimal movement compared to the size of cracks present and still widening and increasing.



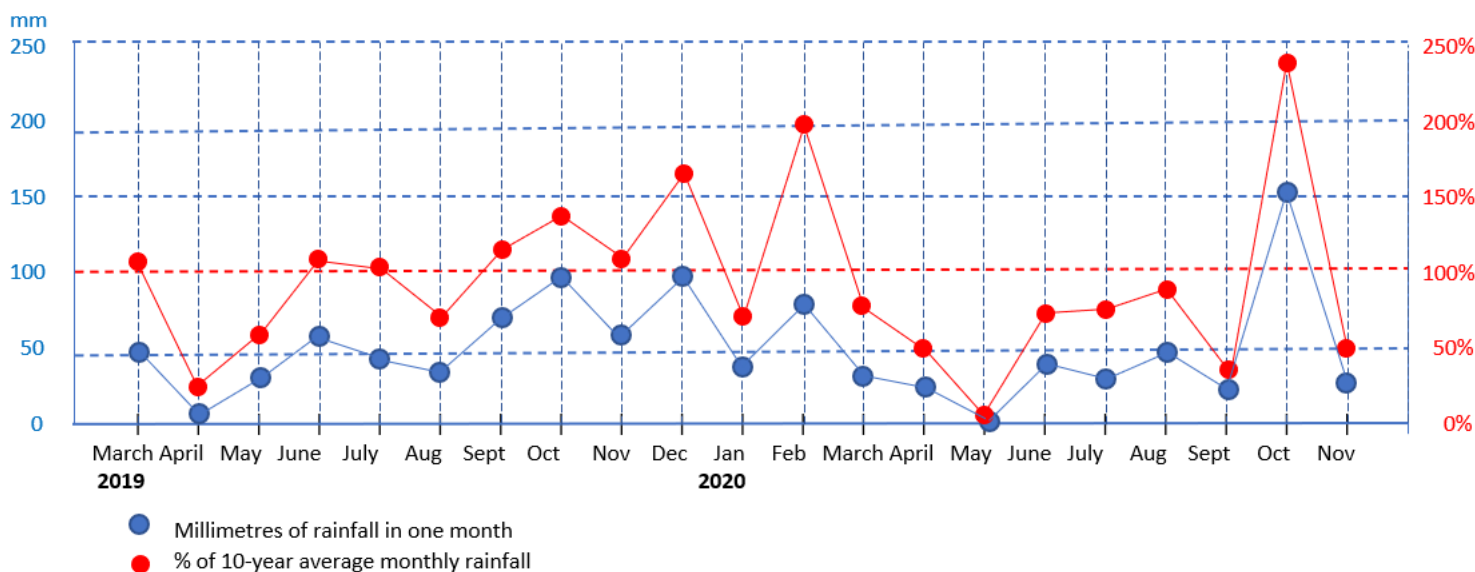
From: nw3weather.co.uk

Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
9.7	2.6	13.6	21.3	11.0	13.4	32.0	17.6	9.2	15.2	7.9	13.6	10.8	11.4	4.6	18.0	6.6	12.0	4.6	32.6	9.2
48.4	12.4	31.8	59.1	43.5	36.9	68.1	91.2	62.4	92.6	39.2	78.8	34.2	24.7	4.8	39.3	31.5	45.0	19.9	152.4	28.2
(110%)	(25%)	(62%)	(107%)	(104%)	(70%)	(119%)	(140%)	(111%)	(165%)	(71%)	(197%)	(78%)	(50%)	(9%)	(71%)	(75%)	(85%)	(35%)	(234%)	(50%)

2019

2020

Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov
48.4	12.4	31.8	59.1	43.5	36.9	68.1	91.2	62.4	92.6	39.2	78.8	34.2	24.7	4.8	39.3	31.5	45.0	19.9	152.4	28.2
110%	25%	62%	107%	104%	70%	119%	140%	111%	165%	71%	197%	78%	50%	9%	71%	75%	85%	35%	234%	50%



This degree of movement might be expected merely for clay expansion and contraction. Since there is clearly more movement than this occurring in the buildings and walls, it brings the datum into question, a pillar perhaps also likely to be affected by silt erosion, hill movement or trees – if it were indeed possible

that these trees, shrubs and grasses really were capable of what they are being accused of. This very unsatisfactory movement 'monitoring' fails to give data for the datum.

The table also fails to reflect in any way the rainfall over this period, whether looking at the actual amount or the percentage of the 30-year average for that month. It fails to show any effect of leaf fall and leaf burst if the trees were to be taken seriously as significant causes. In fact quite the opposite. If the downward movement of monitor points are lowest in November 2019, this is when leaf fall has already occurred and when rainfall is slightly above average. Through this period it is true that the rainfall of most months tends to be below average, but it is not remarkable apart from a very dry April 2019, though this is followed by slightly above average rainfall in June and July.

Again, for the reasons given in my last objection, a persistent moisture deficit here is most unlikely; such a possibility is not reflected in the movement data or that of the rainfall.

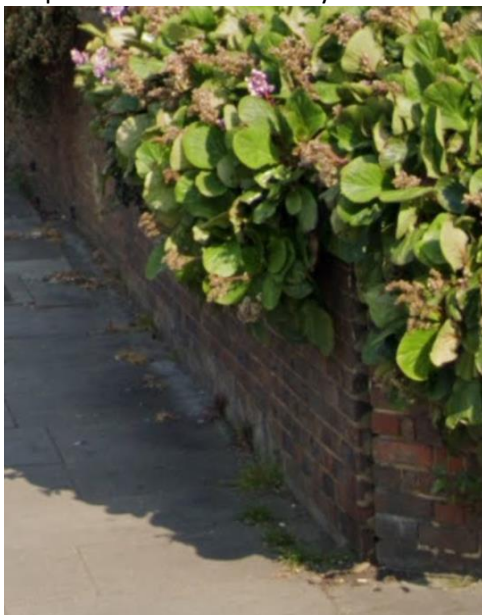
Cracks

Since the previous Notice of Intent the cracks have continued to widen and increase. The retaining wall along the Finchley Road is also moving a little further. I'm afraid I cannot see how a cherry and a rowan tree of no great size, some pampas grass and buddleia is supposed, from quite a distance away uphill, to be able to move this hillside down towards the Finchley Road

September 2017 Cracking at joints each end of the diagonal retaining wall - being pushed downhill



November 2019 Finchley Road wall slightly moved out/over; Arkwright corner joint further open; Old crack reopened near the Finchley Road end of the diagonal wall:



January 2021 Crack in the joint at the Arkwright Road end of the diagonal wall has opened further



Extended crack, far right front window; New subsidence, main part diagonal wall – silt erosion?
(N.B. the dampness here is snow melt)



Vibration

West Hampstead Fire Station have confirmed that all their fire engines (all 2.3 metres wide) that used to go up and down Frognal Lane now have to go to and from Hampstead via Fitzjohn's Avenue and up and (importantly) down Arkwright Road rather than via Frognal Lane as they have been unable to pass through the road narrowing in Church Row for about the last 10+ years. This is also the case for construction lorries carrying spoil and heavy machinery. The vibration from this sort of very heavy traffic has been known to cause movement of hill sides, and would be additive, as is clearly visible in the retaining wall below Camden Arts Centre.

Mains Water Bursts

These are on-going and likely to continue, only making matters worse.



It is only occasionally that the many mains water bursts causing water to pour down Arkwright Road, and attested to by staff at Camden Arts Centre, coincide with the passing of the Street View cars and their cameras as happened here in October 2018. Unfortunately there have been no Street View records since July 2019 to record further incidents.

Of course such vegetation will have a small effect on the ground's volume, but something needs doing to help the building resist the eroding effect of mains water bursts and groundwater surges following storms on the ground beneath the building. It needs its foundations stabilising to cope with the ground's memory of the hill toe being cut back in the 60s and past ground release from the basements to the south of the site, and to cope with the present effects of vibration as fire engines, construction lorries etc accelerate down Arkwright Road hill to beat the lights and crash down onto Finchley Road. Far more urgent than felling trees that are at least helping in their own small way to bind the hill. If they are getting in the way of some sensible underpinning-type work to the building that's as may be. Camden Arts Centre can be trusted to replace them with appropriate trees and shrubs to help stabilise the hill and mop up the excess water.

Pre-JW3

Demolition and dig out, releasing weight on the ground at hill base



For the moment, a refusal for these trees - that provide such tremendous visual amenity to this important corner - to be removed for subsidence would be much appreciated.

Dr Vicki Harding

Society Tree Officer, Heath & Hampstead Society