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1169. Tree Survey and Arboricultural Method Statement.

Further tree information. November 2016.

The owner Mr. E. Green has commissioned Webb Architects to draw up plans to demolish the existing studio houses and replace them with new dwellings with basements.

In the absence of adopted local supplementary planning guidance specific to trees British Standard 5837 2012
"Trees in relation to Design, Demolition and Construction – Recommendations"
(BS)
is used as the benchmark for tree submissions to the Local Planning Authority **(LPA)** – The London Borough of Camden.

The project architect Richard Webb met with the Boroughs Tree Officer, Nick Bell, at number 66 on Friday 11th November 2016.

Please refer to drawing no. 1169.01.02(A) which was drawn up for the case officer after this meeting.
This is the existing site layout which is submitted as a pdf and can be zoomed to any size to reveal fine detail.

The drawing shows.

- Scale bar.
- Drainage and service features
- The position of boundary walls.
- Existing drive surfaces.
- The existing house building foot print.
- The position of catalogued trees and shrubs.
- Polygonal root protection areas **(RPA)** (as described in the BS) of trees.

The spot levels on this drawing show

- The site is to all intents and purposes level.
- The land to the north is circa 0.8 metres higher and this is retained by a brick wall.
- The yard of the house to the west is 1.6 metres lower.
- The land to the south is circa 0.7 metre lower.

No.66 was visited on 24th March 2015 and trees were catalogued

No	Common name of tree	Height estimated in metres	Stem diameter in mm at 1.5 metres from base	Branch spread towards compass points estimated in metres	Height of crown clearance estimated in metres	Estimated remaining contribution in years. Category grading as per table 1 of the BS Comments
1	Birch	10	200	N 3 E 4 S 3 W 2	2	20 C
5	Horse Chestnut	16	900	N 6 E 6 S 5 W 5	6	20 C Symptoms of some form of Chestnut blight on stem.
6	Cotoneaster					shrub
7	Western Red Cedar	7	90	N 1 E 1 S 1 W 1	2	20 C
8	Lime	16	600	N 6 E 6 S 5 W 5	2	40 B
9	London Plane	11	190	N 6 E 5 S 3 W 5	3	40 B
10	London Plane	20	1090	N 9 E 8 S 8 W 8	3	40 B The south western crown overhangs the existing houses and the lowest twigs are circa 2 metres higher than the roof.
G11	Shrubbery including Magnolia and Camellia.					20 C

Young trees T1, T7 & T9 will have a bias of growth towards gaining height.
Mature trees T5, T8 & T10 will be at more or less at their final dimensions and should be capable of producing abundant seed.
A tree will be young for relatively few years and mature for relatively many years.

Arboricultural Implications Assessment

The rear and side elevations of the new dwelling will be built on the existing foundation lines. The outer piling line will consist of contiguous flight auger piles. The piling rig will drill through the existing foundations.

(Generally if roots from neighbours trees are under existing domestic dwelling foot prints they could be deemed to be an actionable nuisance- however at no 66 the root barriers are so deep and the underlying conditions so harsh that it is unlikely that there are any roots from T10 and G11 within the curtilage of no.66).

RPA (root protection area) for retained trees is proportionate to the stem diameter of the individual tree.
RPA is the area which contains sufficient roots to sustain a tree during building works. Ideally RPA should remain undisturbed whilst building takes place.

Normative RPA is shown as a circle on a plan.
It is often the case that due to barriers there will not be roots in part of that normative RPA.
In many cases the RPA can be offset to better rooting conditions contiguous to the circle.
The plan 1169.01.02(A) illustrates how the offset can be found within the land of the tree owners.

The existing houses were built in the 1980s, in which case the foundation depth would have been guided by NHBC (National House Building Council) practice note 3 which provided guidance to avoid damage caused by trees near dwellings. (This subsequently became Chapter 4.2 of the NHBC Standards).
The foundations would have been built at a depth to avoid any subsequent problems which could be caused by the London Plane **T10** (it is a very safe assumption that the tree predates the houses).
It is marginally possible that root damage to the Plane could have occurred but the tree is showing no sign of stress, (due to the lack of space it is a very safe assumption that the northern retaining wall also pre dates the houses).
However to confirm the depth of the foundations the applicant commissioned a trial pit at the northern most end of the western elevation.
The trial pit confirmed that the base of existing foundations are in excess of 2 metres below the base of T10. The foundation arrangement is illustrated on drawing 1168.05.02(-).

The building will also constitute a "rain shadow" and the underlying clay will not be conducive to root growth.

T10s rooting environment has got to be outside of the footprint of the existing house and therefore the south west segment of the normative RPA is discounted.

The LPAs tree officer has seen the root barriers on site.

T10, the Planes roots will be to the north of northern retaining wall – this wall will remain undisturbed during building.
The Lime T 8 - the normative RPA is out side of the proposed piling line.

The Cotoneaster T 6 and the Western Red Cedar T7 are of a size where their roots will not be lower than the foundations of the existing southern elevation of the houses.

The Cotoneaster is not subject to planning controls and along with the shrubbery that comprises group 11 (G11) can be pruned back to the boundary in the normal course of household maintenance. The boundary must not be crossed and all arisings must be offered back to the owners.

The depth of material which makes up the existing entrance drive is not known at the western end. It is therefore proposed in the arboricultural method statement below to introduce a "load spreader" on to the drive to protect possible roots of the Chestnut T5 during construction works.
The narrow width of the drive also precludes very heavy vehicles.
The case officer will acknowledge that this is an existing drive that can be maintained as the owners see fit and possibly in a similar fashion that the boroughs would seek to maintain the highways- eg replacing the wearing layer without disturbing the bearing layer. The site is already fully serviced.

Arboricultural Method Statement. Sequence of Events.

1. T1 Birch will be removed to build.
(Drawing no. 1169.02.11(-) shows finished levels and space for new plantings as described in the submitted design and access statement **(DAS).**

Access facilitation pruning of the London Plane T10 (if required) will be confined to the lowest side limbs of the south western crown. This will not involve removal of branches which are greater than 100mm diameter. The pruning will be carried out by certificated contactors guided by section 7.6 of British Standard 3998 2010 " Tree work –recommendations".
The maximum amount of crown lifting will not exceed 3 metres.
BS 3998 is a normative reference to BS5837, the Boroughs Tree Officer and contractors who have the aptitude to prune this tree will be familiar with section 7.6 of BS 3998.

2. The existing access drive surface will remain unaltered throughout building works.
The surface will be covered with 130 mm of fresh wood chip which will be overlaid with "evetrakway" panels.

3. All demolition works will be carried out within the footprint of the building using top down fold back methods.

4. All piling and excavation works for the basement will be carried out from within the footprint.

5. Existing services routes are serviceable and suitable for the new dwellings - these will re-connected at the closest point to the new basements.

6. When all construction works are completed the approach driveway can be restored. Material will be removed by hand only and from the wearing layer only. The bearing layer will not be disturbed.

7. Refer to plan 1169.SK01(-) and plant one Field Maple - Acer campestre "Streetwise" in the position marked T11 on the plan.
The tree will be planted as a light standard as described in BS3936 part 1.
BS3936 part 1 is a normative reference to BS 5837.
The tree will be pit planted to its original soil mark and sufficiently firmed so as to avoid the requirement for staking. The tree will be mulched to a radius of 0.5 metre with composted wood chip to a depth of 100mm. The mulch will be fleeted adjacent to the stem to avoid contact with the lower stem. A 60cm spiral rabbit guard will be fitted to the lower stem to reduce the possibility of damage from various sources.

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