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1169. Tree Survey and Arboricultural Method Statement. August 2015.

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.

Please refer to drawing no. 1169.01.13 which shows the footprint of the proposed ground floor and outer piling line of the basement.

Drawing no. 1169.01.02 is the existing site survey 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.
- "Normative" circular 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.

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.

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 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 .01.02.

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 should be discounted.

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 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.

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".

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.

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