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ARBORICULTURAL IMPACT ASSESSMENT AND METHOD STATEMENT

BS5837:2012

On behalf of:
Amit Anand
101 Copsewood Way
Northwood, HA6
2TU

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AAAIA101C
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1.0 Instruction

All Arboriculture has been instructed by Amit Anand to undertake a tree survey in accordance with BS5837:2012 *Trees In relation to design, demolition and construction – Recommendations*, and to produce an Arboricultural Impact Assessment, Arboricultural Method Statement and Tree Protection Plan. The instruction was received on the 23rd June 2022. The tree survey was carried out on the 24th May 2022.

2.0 Statement of purpose

The purpose of this report is to provide local planning authorities and the structural engineer with sufficient arboricultural information to consider the effect of the proposed development on nearby trees, and to demonstrate that trees have been carefully considered throughout the development process.

The report includes an arboricultural method statement that describes how work will be undertaken to provide adequate protection of retained trees.

3.0 Associated documents and drawings

This report should be read in conjunction with the following documents and drawings:

1. 22003 - 41 Hurstwood PA Revised
2. British Standards Institute - BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*
3. Tree Protection Plan – AATPP101C

4.0 Site Description

The site is in the urban area of Northwood and is a detached residential dwelling with gardens. The site is relatively flat with no abrupt level changes. The proposal is a single storey rear extension. The site falls under the jurisdiction of London Borough of Hillingdon Council who have advised the trees are not subject to a Tree Preservation Order and the site is not within a Conservation Area..

5.0 Vegetation Description

The vegetation consists of 3 Category B trees, 13 Category C trees and 1 Category C group.

6.0 Arboricultural Impact Assessment

Table 1: Summary of impacts

Tree removal	None
Facilitation pruning	None
Demolition within RPA	None
New surfacing within RPA	None
New structures within RPA	None

Building construction in relation to tree roots: No tree removal or facilitation pruning is required for the implementation of the proposed dwelling. The use of traditional strip foundations for the rear extension will be acceptable and will not impact any of the retained trees. The owner excavated a trial pit as shown on the Tree Protection Plan and no significant roots were discovered.

Building construction in relation to tree canopy: It is important that sufficient growing space is allowed between the mature crown extent of each tree and the roof edge of the proposed structures. This is to reduce conflicts of interest in the future and to reduce the pressure to prune trees to keep them clear of roofs: A clearance of two metres from the mature tree crown is generally considered acceptable which is the case with this proposal.

Tree root and canopy protection: The RPA (Root protection area) of the retained tree should be protected during the development phase with heras fencing to ensure heavy machinery is not operated, or materials stored within the rooting area. This can be detrimental to the tree, causing soil compaction and root die back. The crowns of retained trees also require protection to avoid damaging branches. The heras fencing should follow the line of the RPA, or crown extent, whichever is greater. Where access is required within the RPA, the heras fencing may be temporarily pulled back and the exposed ground augmented with alternative protection as detailed in the method statement. Alternatively, if hard surfacing is required within the RPA, it may be laid prior to heavy machinery entering the site and following appropriate protocol, in order to provide a hard surface from which to operate. The protection of the RPA and canopy spread is detailed in the Arboricultural Method Statement below.

Special surfacing: I do not consider special surfacing to be warranted.

Materials delivery, storage and handling: Materials should not be handled or stored within the RPAs of retained trees; the load exerted can result in soil compaction and leachate from spills can be toxic to trees.

Surface drains, soakaways and services: It is important that services, surface drains and soakaways avoid the RPAs of retained trees as roots can be damaged during trench excavations. The location of services should therefore be agreed with the local planning authority prior to the development phase commencing.

Shading: The shading effects of trees should be taken into consideration when locating fenestration. Where structures are located too close to trees and to the north of them, the shade cast by the trees may prompt requests to fell or prune in the future and is therefore not encouraged by local planning authorities.

7.0 Arboricultural Method Statement

Implementation and phasing of the proposed development: Prior to any building work commencing on site, a meeting will be held with the tree officer, tree consultant and site manager present. During the meeting details regarding the location of heras fencing and ground protection will be discussed and a time to reconvene in order to assess the heras fencing and ground protection will be agreed. The schedule of events during the development phase will be as follows:

Heras fencing will be installed as indicated in plan AATPP101C.

During the development phase, the arboricultural consultant will be notified and asked to supervise any excavating within the RPA of retained trees.

Tree protection barriers: Protective fencing will be installed prior to the commencement of any development activity and will be retained in the positions shown on the tree protection plan (AATPP41HU). The fencing will be to the BS 5837:2012 'Trees in relation to design, demolition and construction – recommendations' (section 6.2 i.e. preformed galvanised steel mesh panels ('Heras' or similar facings) on a driven braced scaffold pole framework. It will be retained at the locations shown until construction is completed. It may be moved or removed only with notice to and consent from the local planning authority.

Ground protection: Temporary ground protection will not be required.

Storage and handling of materials: This site has sufficient space for materials to be stored and handled outside of retained trees' RPA's.

Contractors parking: There is sufficient space on site for parking.

Welfare facilities: Toilets and hand washing facilities shall be made available within the existing dwelling.

Surface drains, soakaways and services: RPAs will be avoided in the drainage design however, in the unlikely event that existing cables need to be unearthed within an RPA, the method for doing so will accord with the recommendations in the NJUG Publication: Volume 4: Issue 2: 16/11/2007: Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Trenches will be dug by hand and any roots over 2.5cm in diameter will be retained undamaged. Smaller roots may be cut back to the proximal face with a clean, sharp pair of secateurs. The trench backfill around the roots shall be a granular material that can be compacted to the point where it can bear the new surfacing without subsiding but without abrasion of tree roots and without raising the soil bulk density to the point where root growth cannot take place. Should it be necessary, this operation will be overseen by the project arboriculturist.

Supervision: The project arborist will attend the site to inspect the heras fencing and ground protection and ensure that it has been laid out as prescribed in the method statement and meets the requirements of BS5837:12. Any excavations within the RPA of retained trees will be overseen by the project arborist. It is the responsibility of the site manager to inform the arboricultural consultant when inspections are required for example, when heras fencing is ready to be inspected.

Tree works: At the time of writing this report, no pruning works are required to enable the planning permission to be implemented. Should the situation arise where it becomes necessary, for example to carry out light pruning in order to erect scaffolding, such tree work would effectively be consented by virtue of the grant of planning permission. All tree work shall be carried out in accordance with BS 3998:2010 Tree Work – Recommendations by suitably qualified personnel.

Tree planting: It is respectfully suggested that if additional tree planting is required then this should be secured through an appropriately worded planning condition.

Sequencing of works

Site clearance of a light nature
Main construction phase
Hard and soft landscaping
Removal of all non-essential
equipment Landscaping hard and soft
(if required Completion

Contacts

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APPENDIX 1 - Tree Schedule Schedule



Tree No	Species	Height (m)	Trunk Diameter (cm)	Crown spread (m)		Crown height above ground (m)	Life stage	General observations	BS 5837 cat	Root protection area (m)	Water demand
1	Poplar <i>Populus alba</i>	16	33	3	3	3	Early Mature	Co dominant.	C	3.9	High
				4	4						
2	Oak <i>Quercus robur</i>	20	56	6	6	3	Early Mature	No significant defects.	B	6.7	High
				6	6						
3	Hawthorn <i>Crataegus monogyna</i>	6	23	2	2	2	Early Mature	Co dominant.	C	2.7	High
				2	2						
4	Poplar <i>Populus alba</i>	18	42	4	5	2	Early Mature	Lean to the East.	C	5.0	High
				5	4						
5	Poplar <i>Populus alba</i>	18	36	4	4	2	Early Mature	Lean to the North.	C	4.3	High
				4	4						
6	Birch <i>Betula pendula</i>	12	30	3	3	2	Early Mature	Multi stemmed. Stem decay present.	C	4.9	Low
				3	3						

Tree No	Species	Height (m)	Trunk Diameter (cm)	Crown spread (m)		Crown height above ground (m)	Life stage	General observations	BS 5837 cat	Root protection area (m)	Water demand
7	Grey Poplar <i>Populus canescens</i>	14	20	2	2	2	Early Mature	No significant defects.	C	2.4	High
				2	2						
8	Birch <i>etula pendula</i>	12	32	3	3	2	Early Mature	Multi stemmed.	C	3.8	Low
				3	3						
9	Birch <i>etula pendula</i>	16	44	2	3	2	Early Mature	No significant defects.	B	5.2	Low
				4	3						
10	Birch <i>etula pendula</i>	17	50	4	5	2	Early Mature	Off site.	C	6	Low
				4	5						
11	Laurel <i>Prunus laurocerasus</i>	6	30	4	4	1	Early Mature	Low quality.	C	3.6	Low
				4	4						
G12	Cypress <i>Cupressus leylandii</i>	10	40	3	3	1	Early Mature	Low quality group. Previously reduced.	C	4.8	High
				3	3						

Tree No	Species	Height (m)	Trunk Diameter (cm)	Crown spread (m)		Crown height above ground (m)	Life stage	General observations	BS 5837 cat	Root protection area (m)	Water demand
13	Lawsons Cypress <i>Chamaecyparis lawsoniana</i>	10	20	2	2	<1	Early Mature	Previously reduced.	C	2.4	High
				2	2						
14	Lawsons Cypress <i>Chamaecyparis lawsoniana</i>	10	19	2	2	<1	Early Mature	Previously reduced.	C	2.2	High
				2	2						
15	Lawsons Cypress <i>Chamaecyparis lawsoniana</i>	10	20	2	2	<1	Early Mature	Previously reduced.	C	2.4	High
				2	2						
16	Cherry <i>Prunus avium</i>	5	32	4	2	2	Early Mature	No significant defects.	C	3.8	Moderate
				3	3						
17	Oak <i>Quercus robur</i>	20	66	5	5	3	Early Mature	Reasonable tree.	B	7.9	High
				5	5						

APPENDIX 1 - Tree Schedule Schedule

Survey Key

Diameter (mm)

Stem diameter in millimetres measured at 1.5m above ground level. Where the stem is divided below 1.5m, measurement is taken as directed by BS:5837 Annex

C. RPA - Root Protection Area

RPA circle radius is determined from Annex D of BS:5837. R- Radius

A – Area

Branch Spread (m)

Radial crown spread in metres, measured for each of the four cardinal points of the compass from the centre of the trunk. Low branches

N E
W S

Height above ground in metres of the lowest branch and use of the 4 cardinal points of the compass.

Age class

(NP) Newly planted – a tree within 3 years after planting

(Y) Young – a tree within its first one third of life expectancy

(EM) Early Mature – a tree within its second third of life expectancy

(M) Mature – a tree in its final one third of life expectancy

(OM) Over Mature – a tree having reached its maximum life span and is declining in health and size due to old age

(V) Veteran – a tree in the second or mature stage of its life and has important wildlife and habitat features including; hollowing or associated decay fungi, holes, wounds and large dead branches.

(A) Ancient – a tree in the ancient or third and final stage of their life that is of interest biologically, aesthetically or culturally because of its age, size and condition

Physiological Condition

GOOD – a tree in a healthy condition with no significant problems

FAIR – a tree generally in good health with some problems that can be remediated POOR – a tree in poor health with significant problems that can't be remediated DEAD – a tree without sufficient live material to sustain life

Structural Condition

An assessment of the structural/safe condition of the tree categorised into:

GOOD – a tree in a safe condition with no significant defects

FAIR – a tree in a safe condition at present but with defects or with significant defects that can be remediated POOR – a tree with significant defects that can't be remediated.

EC - Estimated remaining contribution in years (based on the species and its current condition)

<10 Up to 10 years

10+ 10 years or more

20+ 20 years or more

40+ 40 years or more

Category (Tree quality assessment)

Category U – Tree in poor condition that cannot realistically be retained for longer than

10 years Category A – Trees of high quality

Category B – Trees of moderate quality Category

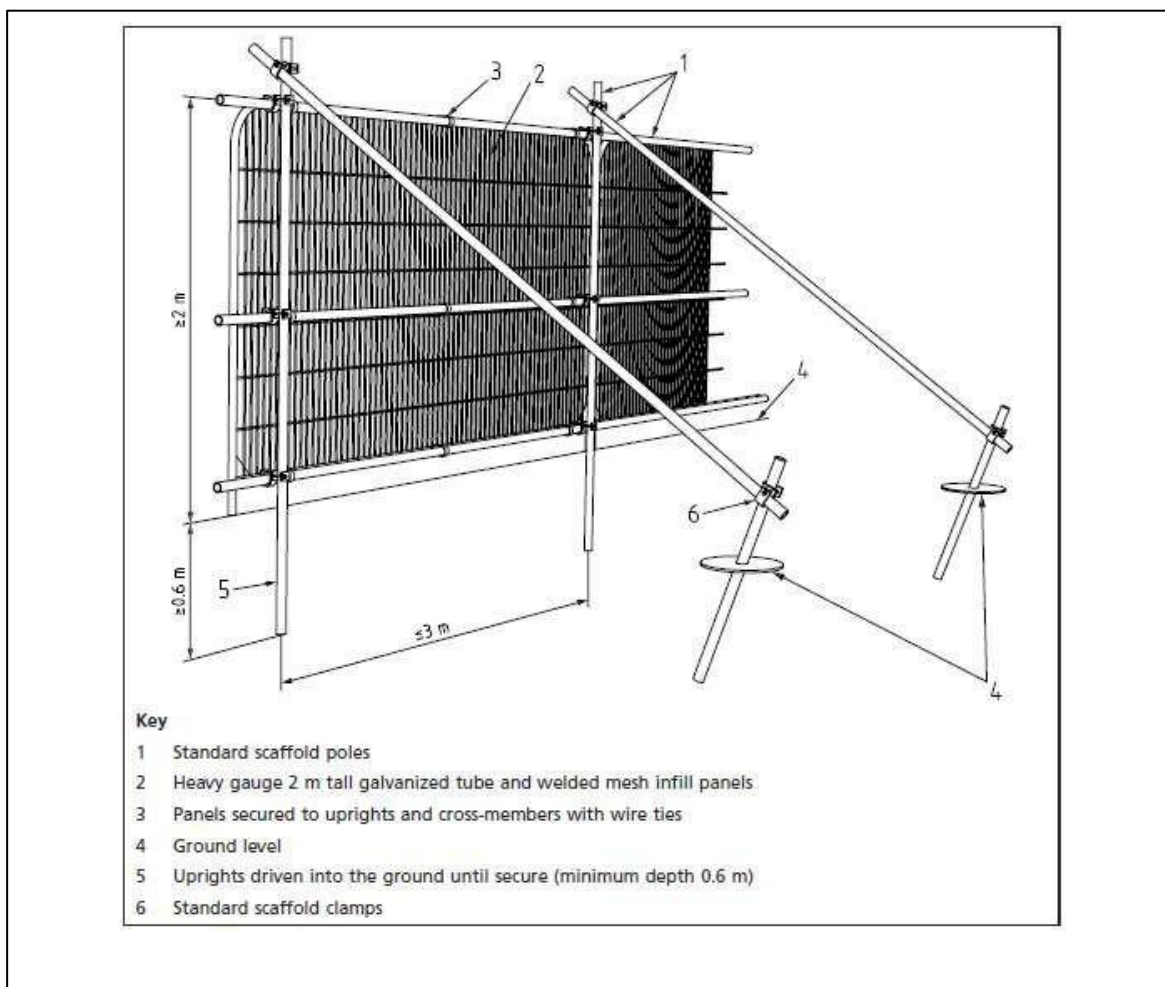
C – Trees of low quality

APPENDIX 2 – Protective Fencing

Protective fencing should be erected before any construction commences on site. It should also be in position to protect important trees prior to demolition.

Protective fencing should stay in position until all construction activity has finished.

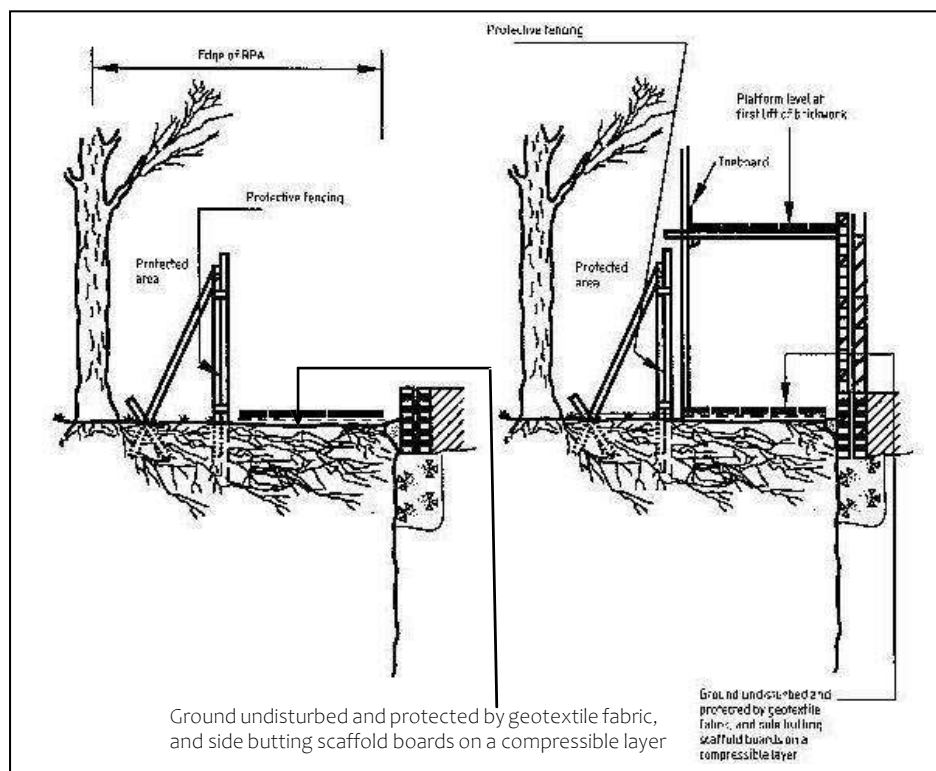
'Fencing should be established at the minimum distance set out in British Standard 5837:2012 '*Trees in relation to design, demolition and construction - Recommendations*'. Excavations should not encroach into the fence position and it is appropriate to keep at least 0.5m between the fence and any changes in level.

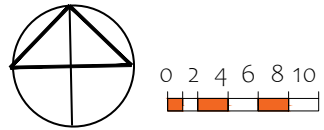
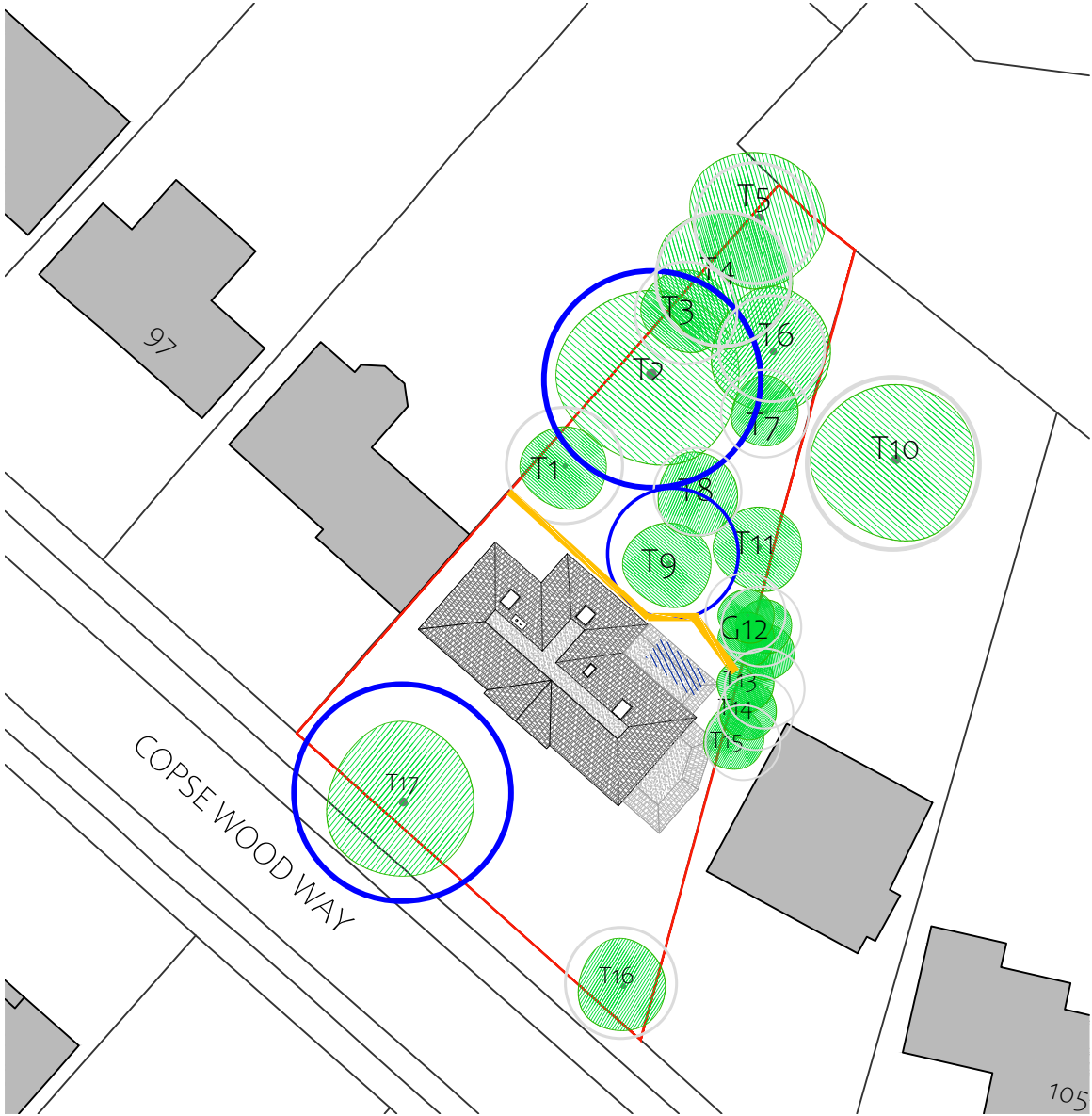


APPENDIX 2 – Protective Fencing

Where ground protection measures are necessary, they can be provided by laying a geotextile mat onto the existing ground level and adding to this compressible materials, such as bark mulch or sharp sand to form a safe, level surface. Onto this surface is laid scaffold boards which become the working surface for the duration of the construction phase.

Where scaffolding is proposed above the area requiring protection the footway can be suspended above ground level using the upright scaffold poles onto which horizontal supports can be attached and then boards used to form the footway surface. A geotextile mat should be laid on the ground beneath to prevent contamination from materials dropped through the footway.





- RPA for Cat A* tree
- RPA for Cat B* tree
- RPA for Cat C* tree
- RPA for Cat U* tree
- Tree to be removed
- Tree Canopy
- Material storage
- Heras Fencing
- Trail Pit

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Client: Amit Anand		
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Site: 101 Copsewood Way Northwood, HA6 2TU		
Title: Tree Protection Plan		
Scale at A3: 1:500	Date: 04/07/2022	Document Ref. AATPP101C