



# Marcus Foster

## Arboricultural Design & Consultancy

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### Arboricultural Survey Impact Assessment & Method Statement Report (BS5837:2012)

Site

133 Haverstock Hill  
London  
NW3 4RU

Client

BreeLayne Carter

Date of Report:

February 2025

Report Reference:

AIA/MF/0107/23/revC

Report Prepared by:

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## **Contents**

1. Instructions
2. Introduction
3. Survey methodology
4. Survey Limitations
5. Tree Survey Summary
6. Arboricultural Impact Assessment
7. Arboricultural Method Statement
8. Communication Monitoring & Compliance
9. Tree Works Schedule

### Appendices

- A: Tree Survey*
- B: Tree Survey Plans: T001-T003*
- C: Photographs*
- D: Tree Protection Notice*
- E: Tree Protection Fencing Specifications*
- F: References*

## **1.0 Instructions**

1.1 This report has been commissioned by BreeLayne Carter to survey, assess and provide an Arboricultural Impact Assessment and Method Statement for the trees sited within close proximity of proposed development works at 133 Haverstock Hill, London, NW3 4RU.

## **2.0 Introduction**

2.1 A site visit was conducted on 20th June 2023 to survey and assess the trees. The weather at the time of inspection was mild and bright with trees in mid summer mode.

2.2 The tree survey, report and recommendations have been compiled for the 10 no. trees and 3 no. shrubs (T1-T13) surveyed within the site and neighbouring sites where relevant.

2.3 The details of the subject trees are set out in the tree survey table in *Appendix A*. The trees were surveyed on the date and time shown above and the tree survey assessment information for the tree describing size, condition and surroundings are found within this appendix.

2.4 The trees located within the site are shown in tree survey drawings T001-T004, *Appendix B*, and these correspond to the tree survey results table, *Appendix A*. Photographs of the trees can also be found in *Appendix C*.

2.5 This report and the opinions within it have been produced by Marcus Foster, a qualified arboriculturist and Professional Member of the Arboricultural Association with over 20 years experience and holding a National Diploma in Arboriculture, the Arboricultural Association's Technicians Certificate, Professional Tree Inspection Certificate (LANTRA) as well as a degree in History and Society. Work experience within the industry includes work as a Contracts Manager for an Arboricultural Association Approved Company, a Local Authority Tree Preservation Officer and an independent Arboricultural Consultant. As a consultant many of projects undertaken are in the inner London Boroughs of Islington, Hackney, Westminster, Camden, Southwark and RBKC, making Marcus Foster familiar with the most recent requirements of development and constraints on urban trees.

### **3.0 Survey Details and Scope**

3.1 The site survey included the 10 no. trees and 3 no. shrubs (T1-T13) as shown in the survey, *Appendix A*, and also highlighted on the site plans, *Appendix B*.

3.2 The trees and hedges were surveyed from ground level from within their site location. The diameter of the trunks have been measured using a DBH tape at 1.5m height. The height of the trees have been estimated.

3.3 The following information was recorded for each tree and is shown in the Tree Schedule included in *Appendix A*:

- Number: an identity number which cross-references locations shown on the plan in *Appendix A* with the schedule in *Appendix B*.
- Species: listed by common names
- Tree Height: height in metres (m)
- Tree Spread: spread in metres (m)
- Stem diameter: measured in millimetres (mm) and taken at 1.5m above ground level
- Age Class: Y (young); EM (early-mature); M (mature); OM (over-mature)
- Vitality: G (good); F (fair); P (poor); D (dead)
- Structural Condition: G (good); F (fair); P (poor); D (dead)
- General Condition Specific comments relating to each tree
- Estimated Remaining Contribution (years)
- BS5837 Category Grading
- Protection Distance m<sup>2</sup> Area (where applicable – BS5827: 2012)
- Protection Distance Radius (where applicable – BS5827: 2012)

3.4 Information recorded in the tree survey, *Appendix A* is expanded in the report findings and preliminary recommendations have been made in *Section 5*.

3.5 Findings as shown within *Appendix A* and assessed within *Section 5* are also highlighted within *Appendix B* which incorporates the Tree Constraints Plan (TCP) - drawing T002 addressing areas where arboricultural solutions are required. The Tree Protection Plan (TPP) - drawing T003 provides outline tree protection measures.

## **4.0 Survey Limitations**

4.1 No soil excavations have been carried out.

4.2 This report only considers the trees and conditions at the time of inspection. As the inspection was only visual no guarantee can be given concerning the condition of the wood at present in any of the trees inspected and furthermore that no future problems or deficiencies may arise.

4.3 The survey has been undertaken as a survey of the trees without prior influence of the development and implicating factors.

4.4 No invasive tools were used during this site survey.

4.5 It should be noted that vegetation including shrubs within this / the neighbouring sites have not been included in the survey as none were within close or relevant proximity .

4.6 The survey has been undertaken from within the site and adjacent public highway only.

4.7 No additional documentation unrelated to the property or development has been referred to for the trees or the property for the compilation of this report.

## **5.0 Tree Survey Summary**

5.1 The trees have been surveyed in accordance with BS5837: 2012 'Recommendations for trees in relation to construction' (BS5837: 2012) and have been rated as follows:

### Category 'A' trees

Trees of high quality with an estimated remaining life expectancy of at least 40 years. Trees have been categorised as 'A' trees for one of the following reasons:

- Mainly arboricultural qualities
- Mainly landscape qualities
- Mainly cultural values including conservation

Within the Site Plan (Appendix B) those trees rated as 'A' category trees have a **green** outline as denoted within the site plan key / survey.

**N/A**

### Category 'B' trees

Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. Trees have been categorised as 'B' trees for one of the following reasons

- Mainly arboricultural qualities
- Mainly landscape qualities
- Mainly cultural values including conservation

Within the Site Plan (Appendix B) those trees rated as 'B' category trees have a **blue** outline as denoted within the site plan key.

**T1, T4**

### Category 'C' trees

Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Trees have been categorised as 'C' trees for one of the following reasons

- Arboricultural qualities - unremarkable trees of very limited merit
- Mainly landscape qualities
- Trees with no material conservation or cultural value

Within the Site Plan (Appendix B) those trees rated as 'C' category trees have a **grey** outline as denoted within the site plan key.

**T2, T3, T5, T6, S7, T8, S9, S10, T13**

### Category 'U' trees

Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. Within the Site Plan (Appendix B) those trees rated as 'U' category trees have a **red** outline as denoted within the site plan key.

**T12**

5.2 The trees have been surveyed taking into account condition, general health and form without the development process influencing the survey. In addition they have also been surveyed taking account of amenity value that is offered in relation to both the landscape and surrounding buildings and streetscape. This report outlines the impact that the proposed development will have on the overall treescape and landscape; it provides recommendations to ensure that long-term amenity value for the area is retained.

5.3 The report has been written with close reference to the British Standard Guidance, British Standard 5837: 2012 'Recommendations for trees in relation to construction' (BS5837: 2012), which addresses the juxtaposition between trees and structures. The Arboricultural Impact Assessment highlights areas where the trees will require protection which should be addressed within the Arboricultural Method Statement (AMS) and/or Tree Protection Plan (TPP) specific to the site and proposed scheme, and corroborating with all construction and landscape method statements as relevant.

5.4 The report specifies precautions which shall be taken when working close to retained trees. Important terms include:

#### **Root Protection Area (RPA)**

The area defined as requiring protection from development from retained trees within BS5837 (2012). Using a calculation provided within BS5837 a radius distance is provided based on a measurement of the main stem taken at 1.5m height.

#### **Construction Exclusion Zone (CEZ)**

This is the RPA where no construction activity should occur and damage is prevented by either installing fencing to restrict access or installing ground protection that allows limited access above the ground, while protecting the rooting environment below.

Due to site constraints and the encroaching nature of development for an area within the RPA outside the CEZ where works are proposed, works must be carried out with care to minimise any impact on the tree rooting environment.

#### **Tree Protection Plan (TPP)**

The document which defines the extent and methodology of tree protection for the entire development process. This should be referred to AT ALL TIMES by the principal contractor and shall ensure safe protection of all retained trees on site.

#### **Precautionary Area**

An area where works must be undertaken with direct consultation with methodology as specified within the AMS report and / or scheme of Arboricultural supervision

## 6.0 Arboricultural Impact Assessment

### Site Overview

6.1 The 10 no. trees and 3 no. shrubs (T1-T13) are located within 133 Haverstock Hill, London, NW3 4RU and adjoining properties which is within the London Borough of Camden. The following statutory checks have been made for the site:

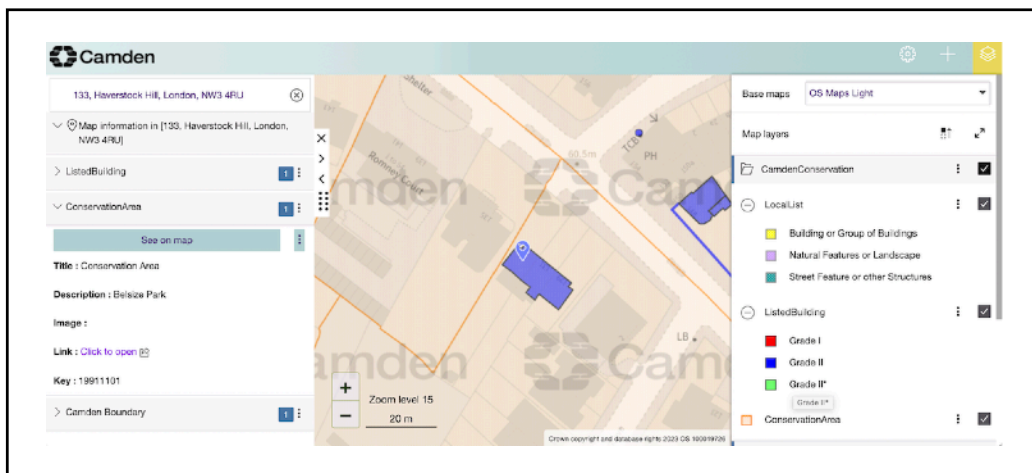
CONSERVATION AREA STATUS  
*Belsize Park (CA31), London Borough of Camden*

TREE PRESERVATION ORDER (TPO) STATUS  
*TPO protection check has not been undertaken. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order, and those trees without. This is principally because a detailed planning consent overrides any TPO protection*

6.2 The trees are sited as follows:

133 Haverstock Hill: trees and shrub T1 -T8, S9, S10  
135 Haverstock Hill: trees and shrub T11, T12

6.3 Extracted maps confirms site location and statutory protection / location within a Conservation Area:



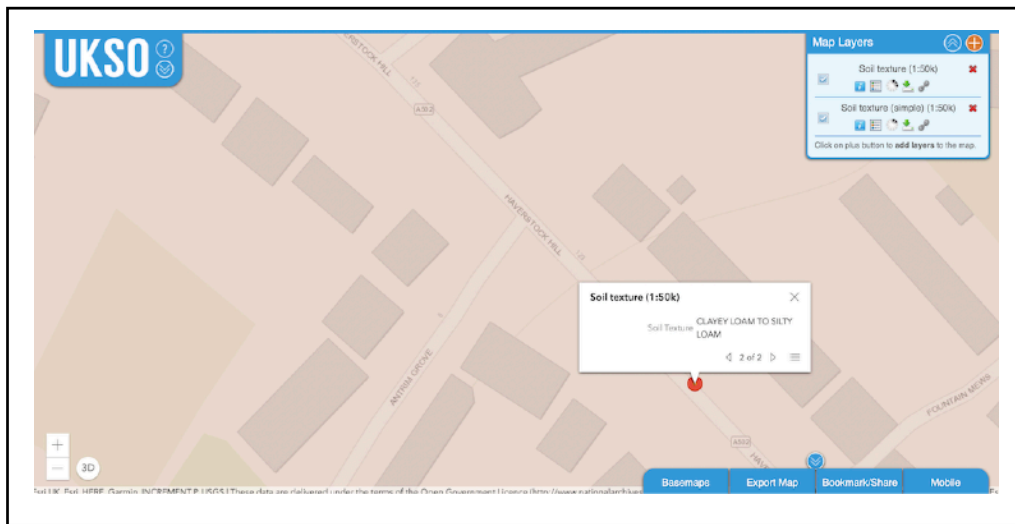
Extract from:

<https://opendata.camden.gov.uk/People-Places/Camden-Conservation-Areas-Map/d2m6-mjue>



6.4 The underlying soil to this area is classified as 'clayey loam to silty loam' within the UK Soil Observatory ([www.ukso.org](http://www.ukso.org)) - a medium to heavy soil mix. The presence of a clay element within the soil is significant in terms of both tree protection and foundation design. Clay soils can experience substantial volume changes when vegetation extracts moisture from the ground and they are also prone to compaction when wet; therefore with potential for volumetric change in the soil post development.

6.5 The soil profile is confirmed as below:



EXTRACT FROM:

<https://mapapps2.bgs.ac.uk/ukso/home.html>

6.6 Any foundations should also be designed in accordance with the recommendations contained within NHBC Chapter 4.2 (National House Building Council, 2010) and should account for the possibility of both subsidence and heave from relative soil conditions which are recommended to be researched specifically to the site.

6.7 For the purposes of this report, reference has been made to the following plans for the proposed development which comprises landscaping works to front garden (new gates, railings including to side boundary where there are none existing) and landscape works to rear garden including widening and repositioning of existing rear steps and addition of an outbuilding at the rear of the garden:

- Flower Michelin Architects  
312\_31\_01D (Proposed Site Plan).dwg  
0097\_Design, Access and Heritage Statement.  
0097\_M1\_001.dwg

6.8 The summary of arboricultural impact which shall be assessed is as follows:

- General development / construction works within close proximity of retained trees
- Loss of - 3 no. 'C' category trees  
- 2 no. 'C' category shrubs
- Selective ground works in accordance with tree protection measures within the RPA of retained trees
- Potential compaction and damage of the retained trees in relation to the development and landscape process
- Potential damage to canopies of the retained trees surrounding the site during development and landscape process
- The use of and storage of materials and chemicals on site within close proximity of the trees
- Impact of development upon trees via future occupancy

6.9 The trees and the impact from the proposed development are evaluated within this section to determine overall arboricultural impact from the proposed development. Where trees are retained the Root Protection Area (RPA) for each tree is evaluated in relation to proposed development works. The following is assessed within this section:

- (i) Where tree protection measures are deemed appropriate these are highlighted
- (ii) Mitigation for tree loss via replacement planting where trees are proposed for removal

6.10 Reference is also made to the London Plan - G7 Trees and Woodlands (Greater London Authority) - 2021 and the Camden Tree Strategy (2020-2025).

## **Arboricultural Impact Assessment**

6.10 The trees sited within and surrounding the subject site are of the following species:

### Trees

Sycamore (*Acer pseudoplatanus*)

Leyland Cypress (*Cupressus leylandii*)

Holm oak (*Quercus ilex*)

Yew (*Taxus baccata*)

Monterey cypress (*Cupressus macrocarpa*)

Cherry (*Prunus spp*)

### Shrubs

Pittosporum (*Pittosporum tenuifolium*)

Cherry laurel (*Prunus laurocerasus*)

Pyracantha (*Pyracantha gibsii*)

6.11 The main attributes of the trees are as follows:

(i) Trees T1 - T2 off site to the north at frontage beyond 2m brick built boundary wall. Overhanging crown as follows:

- For T1 Sycamore 'B' category: 4m branch lengths @ 8m - 12m height
- For T2 Leyland Cypress 'C' category: 4m branch lengths @ 3m - 8m height

(ii) Tree T3 - 'C' category Holm oak at site frontage poorly sited within raised retainer feature with developing form / low growth within inappropriate location; root plate causing direct and indirect damage to landscape features due to retained form

(iii) Tree T4 - Yew tree 'B' category offering screening form; managed

(iv) Trees T5-T7 comprising 2 no. Holly and 1 no. Pyracantha; all 'C' category within raised retainer to front southern boundary; limited form

(v) Tree T8 a front screening tree to north of entrance; crown growing on northern elevation of building

(vi) To rear no trees sited within the rear garden - just 2 no. 'C' category shrubs, S9 & S10 in fair form

(viii) Off site to north within rear garden trees comprise

- T11 a 'C' category lapsed pleach / topiary hornbeam

- T12 a 'U' category Monterey cypress which is hazardous where leaning on / mainly supported by the boundary wall

Summary photographs of the trees are shown within *Appendix C* with full findings within the Tree Survey Schedule - *Appendix A*.

6.12 To the front of the property the potential impacts for individual trees are as follows:

- Loss of 3 no. 'C' category tree - tree T3, T8 & T13
  - T3 due to Inappropriate location
  - T8 due to Inappropriate location
- Boundary treatment updates - RPA of T4, T5, T6

6.13 To the rear of the property the potential impacts for individual trees are as follows:

- Future occupancy of rear garden structure within close proximity of retained trees
- Site infrastructure including storage of materials, chemicals, site welfare associated with development process including refurbishment works within RPA of retained trees

6.14 For the main development there is no incursion to the RPA of retained trees for the development works which includes for the garden building.

6.15 Protection of all trees highlighted for retention is justified based on the following:

- (i) No RPA incursion for retained trees for development
- (ii) Update boundary treatments for front boundary wall within close proximity of T4, T5, T6 subject to Precautionary Area tree protection measures
- (ii) Limited impact to crowns within / overhanging the subject site
- (iii) Application of tree protection measures incorporating
  - Off site location for T1, T2 & T11 affording protection to the main stem of these tree
  - Ground protection for retained trees
- (iv) Main extent of canopy cover to rear garden being shrub growth and not requiring tree protection measures

6.16 It is noted that tree T12, Monterey cypress is sited off site to the north within close proximity of the proposed garden building. However the tree is rated as a 'U' category due to hazardous form leaning on / supported by the boundary wall. The tree is therefore deemed to have a very limited lifespan and as such the impact is not assessed due to management (recommended via removal) required for the relevant landowner to dispense with duty of care.

6.17 In relation to future occupancy it is clear that the site shall not be detrimentally impacted from the shading of those trees retained due to absence of trees impacting the out building and landscape works having no impact to trees where retained.

6.18 The following tree protection measures shall be applied as specified within Section 6, AMS and the TPP which shall mitigate against any potential damage ensuring all trees remain protected:

(i) TREE PROTECTION FENCING

Retention of existing boundary treatments

(ii) GROUND PROTECTION

Ground protection for RPA area exposed to construction works shall be implemented as shown within the AMS & TPP

(iii) PROTECTION FROM SITE STORAGE, INFRASTRUCTURE & WELFARE

Site storage, mixing of chemicals and site welfare shall be sited outside of the RPA of retained trees

(iv) PRECAUTIONARY AREA

For the precautionary area for front boundary works as outlined within the AMS (Section 7 of this report) & TPP a Precautionary Area shall be applied to protect trees from the development process

6.19 For boundary fence line between no. 133 & 131, where trees and tree roots intercept the fence line individualistic / non generic strategy to the fence building shall be required with the tree's main stems to be accommodated within the design and fence built around the trees allowing for any future growth habits where such conflicts occur. At no point shall there be damage to the trees in order to install a fence line through the line of trees main stems, developed epicormic growth, buttress roots or other roots encountered.

## Tree Removal

6.20 The proposed development requires loss of the following tree and shrubs:

- T3 - Holm oak: 'C' category
- S7 - Pyracantha : 'C' category
- T8 - Holly: 'C' category
- S10 - Pittosporum: 'C' category
- T13 - Cherry: 'C' category

6.21 The loss of 3 no. tree and 2 no. shrubs being 'C' category are noted as tree which should not constrain development; furthermore mitigation for the shrub removal is not required. It is also noted that these tree proposed to be removed are not subject to TPO status nor being worthy of TPO status due to limited form and inappropriate location.

6.22 The tree removal shall be mitigated with a robust replacement tree planting scheme for the replacement of 1 no. tree will deliver an enhanced site for canopy cover and amenity value for the long term delivering in accordance with The Local Policy <sup>1</sup> which states as follows:

*Camden Council's Tree planting Strategy sets out how we will meet our ambition to plant more trees in the borough, increasing our commitment by 50%, to at least 600 trees per year. Alongside increasing the canopy cover, we will also work to increase the quality and diversity of the urban forest to support a resilient urban forest throughout the borough.*

6.23 The tree planting strategy shall mitigate for the tree removed by providing as follows:

- Tree replacement proposals as mitigation to provide 1:1 ratio of replacement
- Species mix to be pest & disease and climate change resilient species
- Landscape scheme to provide further mitigation

6.24 The proposal is for 2 no. tree as a 1:1 ratio to replace lost amenity value with a more appropriate location. All replacement planting shall be undertaken in accordance with BS8545: Trees - from Nursery to Independence in the Landscape as set out within drawing T004 - Replacement Tree Plan

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<sup>1</sup> Camden Tree Planting Strategy 2020-2025

## **Summary of Arboricultural Impact**

6.25 The proposed development requires tree protection measures and mitigation for the implementation of development as follows:

*Tree Protection applicable to the following trees: T1, T2, T4, T5, T6  
Mitigation via replacement tree planting applicable for: T3, T8, T13 \*  
\* No mitigation for shrub loss is required*

6.26 The tree protection measures shall ensure that the development does not detrimentally impact the amenity value and canopy cover of the site including those trees neighbouring the site.

6.27 In summary the arboricultural impact as outlined within drawing T003 - Tree Protection Plan (TPP) shall require the following tree protection measures

- (ii) GROUND PROTECTION
- (ii) FACILITATIVE TREE WORKS
- (iii) PROTECTION SITE STORAGE, INFRASTRUCTURE & WELFARE
- (iv) PRECAUTIONARY AREA

6.28 A landscape scheme with mitigation for loss of removed trees shall include replacement planting to provide long term canopy cover; this shall ensure that the development does not detrimentally impact the amenity value and canopy cover of the site but enhances for the long term.

## **7.0 Arboricultural Method Statement**

7.1 The following tree protection measures require close adherence AT ALL TIMES as outlined within this report. The measures are outlined within Tree Protection Plan (TPP) - drawing T003.

### **7.2 Tree Works**

7.2.1 Tree works should be carried out at pre-commencement. Refer to Section 9 - Tree Works Schedule.

### **7.3 Tree Protection Fencing**

7.3.1 Protection of the trees highlighted for retention must be implemented as explained below and as specified within the TPP - drawing T003:

Retention of existing boundary treatments  
or  
Where removed as set out below Section 7.3.2

7.3.2 These measures must remain for the entire construction process in order to provide a comprehensive barrier from the trees

- The area surrounding the trees must be surrounded by protective fencing as outlined in TPP - T003
- The protective fencing used must be suitable for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained trees.
- This barrier must remain rigid and complete during the entire construction process. Protection is not required surrounding entire trees where boundary treatments intervene in RPA's as the remainder of the root plate will remain unaffected by virtue of being located within the neighbouring properties
- The type of fencing used must be that as described in the current British Standard 5837: 2012 'Recommendations for trees in relation to construction'. This consists of a scaffold framework as outlined in the British Standard, comprising a vertical and horizontal framework, well braced to resist impacts, with the vertical tubes spaced at a maximum of 3m. A weldmesh panel should be securely fixed with wire or scaffold clamps to the framework.



- Once the Exclusion Zone has been protected by fencing all weather notices as included in *Appendix D* must be put onto the barrier warning that the area is a construction exclusion zone.
- No heavy plant shall come into contact with any part of the canopies of the trees.
- No building materials or chemicals shall be stored within the tree protection zone as indicated on the TPP

## 7.4 Ground Protection

7.4.1 The following shall be fully adhered to:

(i) Retention of existing hard landscapes

OR

(ii) Ground protection applied

- Implementation of 75mm bark mulch layer overlapped with minimum 15mm plyboard surface or load bearing ground protection boards to provide ground protection for development process
- No storage of spoil within this area
- No storage of chemicals within this area

7.4.2 Where applied, ground protection shall be removed for final landscapes works within the RPA of retained trees.

## 7.5 Storage of Construction site related materials, plant and spoil / Site Welfare & Site Office

7.5.1 A designated storage area / site welfare & office must be confirmed at pre-commencement stage which is located outside of the RPA of retained trees and within existing hard standing. Strict adherence to this area must be made to this area and any amendment would require written consent from the tree officer.

7.5.2 Site welfare and the site office must be confirmed at pre-commencement stage which is located outside of the RPA of retained trees. Strict adherence to this area must be made to this area and any amendment would require written consent from the tree officer.

## 7.6 Precautionary Area

7.6.1 For the 'Precautionary Area' / incursion within RPA of retained trees Precautionary Area denoted within the TPP highlight where the following works are required:

(i) BOUNDARY TREATMENT UPDATE - T4, T5, T6

All excavations / ground works associated with the front / side boundary update shall be applied as per specifications within this AMS

For boundary fence line between no. 133 & 131, where trees and tree roots intercept the fence line individualistic / non generic strategy to the fence building shall be required with the tree's main stems to be accommodated within the design and fence built around the trees allowing for any future growth habits where such conflicts occur. At no point shall there be damage to the trees in order to install a fence line through the line of trees main stems, developed epicormic growth, buttress roots or other roots encountered.

7.6.2 The application of selective foundations shall require very limited extent of excavations - the details which shall be confirmed at pre-commencement. Within BS5837 (2012) the Standard makes provision for undertaking excavations in RPAs, explaining that all excavation must be carried out carefully using spades, forks and trowels, It is important not to damage the bark and wood of any roots. For this area, these tools should be used with no machinery used for the preliminary works.

7.6.3 For this area the following shall apply:

- All works within Precautionary Area highlighted within 'Toolbox Talk'
- With all below ground level works for determining suitable locations for selective foundations for this area undertaken by hand, the severance of any larger roots encountered up to 25mm diameter should then be undertaken by the supervising arboricultural consultant to ensure clean severance
- The supervising arboriculturist shall provide guidance and consultation during this stage of the ground works AT ALL TIMES

7.6.4 For undertaking excavations within the precautionary area guidance is applicable

### *Tree Root Severance Guidance*

The contractors must be aware of tree protection guidance in relation to tree roots which must be applied as follows:

- The severance of any tree roots encountered larger than 25mm in diameter MUST NOT occur without prior consultation with the Local Authority Tree Officer or appointed Arboricultural Consultant.
- If at any point it is deemed not possible to continue with excavations without having to damage very significant tree roots, the Local Authority Tree Officer and / or the appointed Arboricultural Consultant must be contacted.

The following tools shall be applicable for such works:



## 7.7 Final Landscape Works

7.7.1 For final landscaping works the following must apply where carried out within the RPA of retained trees

- No reduction in levels of the underlying soil surface will occur during final landscaping works within the RPA of retained trees
- Close adherence with detailed root protection specifications as outlined within this report for installation of pergola and shed
- No compaction of soils for establishing level base

7.7.2 No soakaway shall be sited within the RPA of retained trees.

## 7.8 Installation of utility services

7.8.1 The installation and/or amendment of utility services within the RPA of retained trees is not relevant. Where installation within a RPA were required the following details must be adhered to with any amendment would require written consent from the tree officer:

- Trenching for the installation of underground services severs any tree roots present and can have a detrimental impact on the structural integrity of affected trees. When services are required to pass through a Tree Protection Area / CEZ, detailed plans showing proposed routes should be drawn up in conjunction with the consulting arboriculturist to avoid long term problems for related trees.

- The preferable method for trenching is to use a 'Air Spade' or similar to remove soil with compressed air, therefore minimising damage to roots in the process. Should hand dug excavations be required within the RPA this shall only be undertaken with arboricultural supervision.

7.8.2 Further reference can be made to National Joint Utilities Group (Volume 4, Issue 2) for guidance but any approach must be approved by both the consulting arboriculturist and Local Authority tree officer.

## **8.0 Communication, Monitoring and Compliance**

8.1 In ensuring that all Tree Protections Specifications as highlighted within this AMS are closely adhered to at all times, it is important to set out for the long term of the development, communication details for key individuals and tasks that require monitoring.

8.2 For all tree protection measures these must be considered as sacrosanct and should not be removed or altered without prior written consent from the Local Authority tree officer and/or consulting arboriculturist.

8.3 The local authority arboriculturist will have free access to the site and forward any concerns / recommendations directly to the consulting arboriculturist.

8.4 The following individuals and organisations are central to the delivery of the scheme in relation to the tree protection measures it requires:

### **CONSULTING ARBORICULTURIST**

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**Contact** - Marcus Foster

**Email** - [mail@marcus-foster.com](mailto:mail@marcus-foster.com)

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### **LONDON BOROUGH OF CAMDEN - TREE OFFICER**

**Name** - Arboricultural Services - London Borough of Camden

**Telephone** - 020 7974 5939

**Contact** - Nick Bell - Tree Officer

**Email** - [nick.bell@camden.gov.uk](mailto:nick.bell@camden.gov.uk)

## 9.0 Tree Works Schedule

9.1 Any tree work shall be carried out to BS 3998; 2010 Recommendations for Tree Work.

9.2 Tree works to be undertaken at pre-commencement stage.

<b>TREE WORKS SCHEDULE: 133 Haverstock Hill, London, NW3 4RU</b>				
Tree No.	Common Name	BS5837 Category	Tree Works	Reasons for works
T3	Holm oak	C	Fell to ground level	To facilitate development
T4	Yew	B	Crown lift to 2m height including removal of all epicormic growth / basal and trunk growth to this height	To facilitate development
T5	Holly	C	Crown lift to 2m height including removal of all epicormic growth / basal and trunk growth to this height	To facilitate development
T6	Holly	C	Crown lift to 2m height including removal of all epicormic growth / basal and trunk growth to this height	To facilitate development
S7	Pyracantha	C	Fell to ground level	To facilitate development
T8	Holly	C	Fell to ground level	To facilitate development
S10	Pittosporum	C	Fell to ground level	To facilitate development
T13	Cherry	C	Fell to ground level	To facilitate development

### NOTE: Wildlife & Habitat Protection Guidelines

The tree work specifications included within this report do not provide an exemption from the requirements to comply with the Wildlife and Countryside Act 1981, the Habitats Regulations 1994 and the Countryside and Rights of Way Act 2000, or any acts offering protection to wildlife. Of particular note is the protection offered to bats, birds and their nests, whilst being built or in use. It must be noted that failure to comply with the Acts may result in a criminal prosecution.

# **Appendices**

## **Appendix A**

### Tree Survey Schedule (BS5837:2012)

133 Haverstock Hill  
London  
NW3 4RU

Colour Key: BS5837: 2012 (see Section 3.6)

-  Category A
-  Category B
-  Category C
-  Category U

**BS5837:2012 TREE SURVEY**

**SITE: 133 Haverstock Hill, London, NW3 4RU | SURVEY DATE: 20th June 2023**

Tree No	Species	Height (m)	DBH (mm)	Spread (m) N/E/S/W	Age	Structural Condition	Vitality	BS5837 (2012) Rating	Remaining Contribution (years)	Comments / Structural Condition	First branch height (m)	First canopy height (m)	Root Protection Area (RPA) m2	Root Protection Area (RPA) Radius (m)
T1	Sycamore	16	400 (estimate)	4 6 5 4	SM	F	G	B1	20+	Off site to north. 2m height brick built wall between site and tree. Cyclically reduced; lapsed 1-2 years. Retains compact shape. Overhang of 4m branch lengths @ 8m - 12m height	4	4	72.39	4.8
T2	Leyland Cypress	9	300 (estimate)	3 3 5 4 4	SM	F	G	C1	10+	Off site; lapsed screening tree. Overhang of 4m branch lengths @ 3m - 8m height	3	3	40.72	3.6
T3	Holm oak	8	240	4 4 4 4 3	Y	F	G	C1	10+	Front boundary; within limited low retainer - 600mm height. Developing low growth over highway	1.5	1.5	26.06	2.9
T4	Yew	7	220	4 4 4 4	SM	F	F	B1	20+	Southern boundary; developing with balanced form	2	1	21.9	2.6
T5	Holly	8	210	4 4 3 2	SM	F	G	B1	20+	Boundary location. Screening tree growing alongside tree T6	2	1	19.95	2.5
T6	Holly	9	220	3 2 3 3	SM	F	G	B1	20+	Boundary location. Screening tree growing alongside tree T5. Basal growth; epicormic developing	2	1	21.9	2.6
S7	Pyracantha	6	M/s 100	4 3 2 2	SM	P	F	C1	10+	Over-extended shrub growing within driveway. Limited form	1	1	4.52	1.2
T8	Holly	9	200	3 3 3 3	SM	F	F	C1	10+	Sited within limited raised retainer. Lean to south. Poor secondary stem growing to east on entrance access wall. Crown growing against building. Ivy growth to 5m developing low hanging habit	3	2	18.1	2.4
S9	Cherry laurel	6	M/s 180	4 3 3 3	M	F	F	C1	10+	Large shrub / small tree. Lapsed screening. Poorly pruned to south	1.5	1.5	14.66	2.2
S10	Pittosporum	7	M/s 120	4 4 3 3	SM	F	F	B1	20+	Large shrub / small tree. Congested union at 0.3-1.2m height. Poorly pruned to south east	2	2	6.52	1.4
T11	Hornbeam	7	120 (e)	3 3 3 3	SM	F	G	C1	10+	Off site to north, likely lapsed from pleached form	2.5	2.5	6.52	1.4
T12	Monterey cypress	9	350	4 3 5 4	SM	P	F	U	Less than 5 years	Off site. Lean to south west with main stem resting directly on wall; tree likely unstable without wall. Declining vigour. Absent crown to east	3	2.5	55.42	4.2
T13	Cherry	5	150	2 3 2 1	SM	F	F	C1	10+	Front boundary; ornamental. One-sided crown over highway	2.5	2.5	15.1	1.8



## **Appendix B**

*Existing Tree Survey (T001)*  
*Tree Constraints Plan (T002)*  
*Tree Protection Plan (T003)*  
*Tree Planting Plan (T004)*

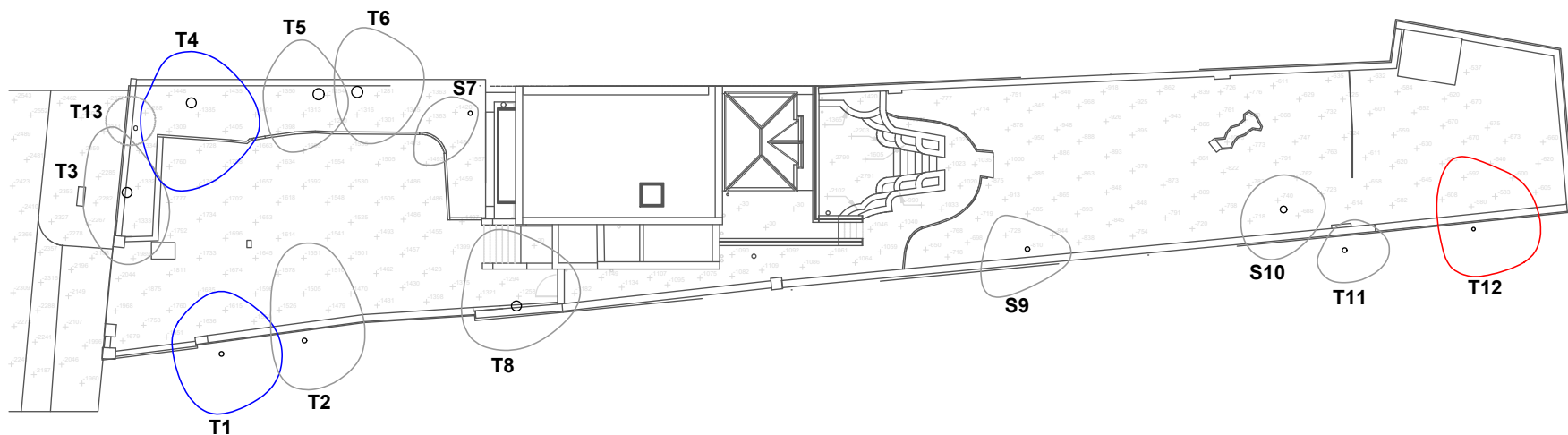
133 Haverstock Hill  
London  
NW3 4RU

Colour Key: BS5837: 2012 (see Section 3.6)

-  Category A
-  Category B
-  Category C
-  Category U

KEY

	CATEGORY A
	CATEGORY B
	CATEGORY C
	CATEGORY U
	TREES REMOVED
	RPA
	RPA INCURSION
	SHADING ARC

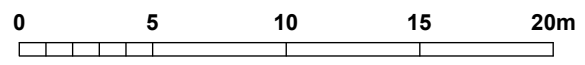


**BS5837 (2012) Tree Survey Notes**

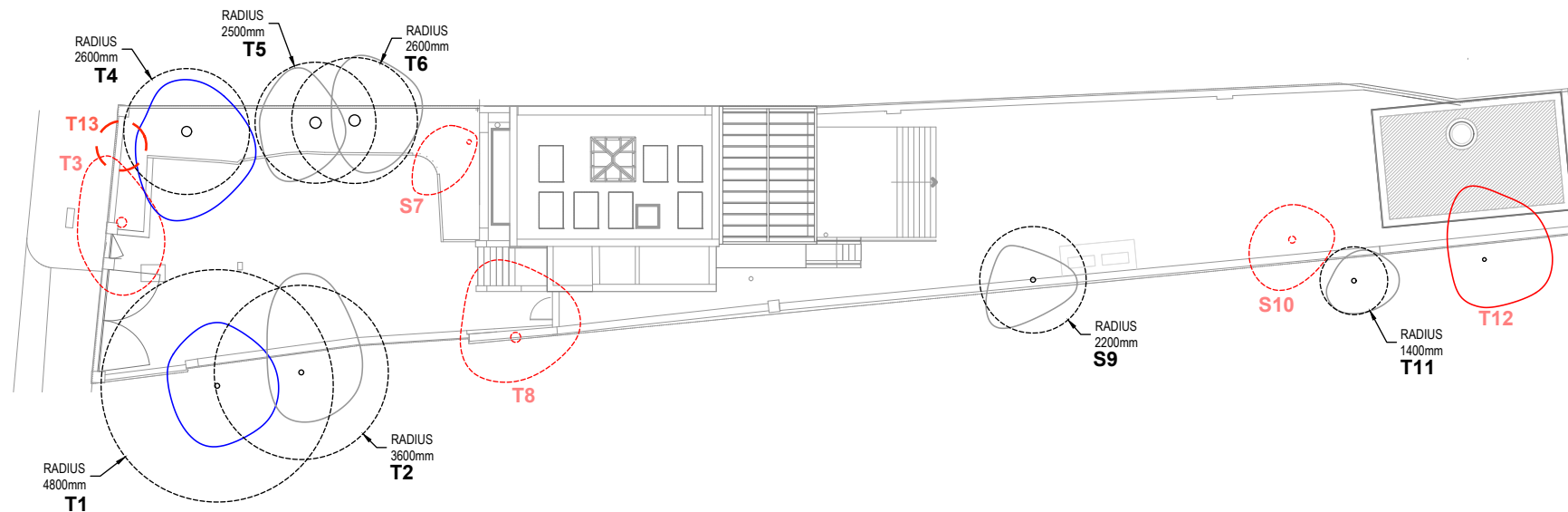
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- This drawing should be read in conjunction with all other relevant drawings and specifications
- Marcus Foster Arboricultural Design & Consultancy accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided
- Off site trees have been plotted based on site visit survey and locations are not based upon topographical survey

NOTE: Tree survey locations based on previous undertaken topographical surveys for design issue and additional GIS mapping has not been undertaken for the purposes of this survey  
 All off site trees where not plotted within topographic survey information are plotted using on site survey tools from within the site only.

Revisions		
Rev.	Date	Checked
1	30.06.2023	MF
ISSUED FOR INFORMATION		
SITE 133 Haverstock Hill, London, NW3 4RU		
CLIENT Firstplan		
DWG TITLE Existing Tree Survey Plan		
SCALE 1:200 @ A3	DATE JUN 2023	
JOB NO AIA/MF/0118/23	DWG NO T001	



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KEY

	CATEGORY A
	CATEGORY B
	CATEGORY C
	CATEGORY U
	TREES REMOVED
	RPA
	RPA INCURSION
	SHADING ARC

BS5837 (2012) Tree Survey Notes

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**NOTE:** Tree survey locations based on previous undertaken topographical surveys for design issue and additional GIS mapping has not been undertaken for the purposes of this survey. All off site trees where not plotted within topographic survey information are plotted using on site survey tools from within the site only.

Revisions

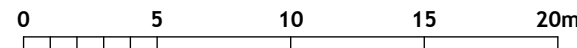
Rev.	Date	Issued For Information	Checked
/	30.06.2023	ISSUED FOR INFORMATION	MF
/	20.10.2023	ISSUED FOR INFORMATION	MF
/	26.10.2023	ISSUED FOR INFORMATION	MF
/	03.07.2024	ISSUED FOR INFORMATION	MF
/	11.12.2024	ISSUED FOR INFORMATION	MF

SITE 133 Haverstock Hill,  
London, NW3 4RU  
CLIENT Firstplan

DWG TITLE Tree Constraints Plan

SCALE 1:200 @ A3 DATE JUN 2023

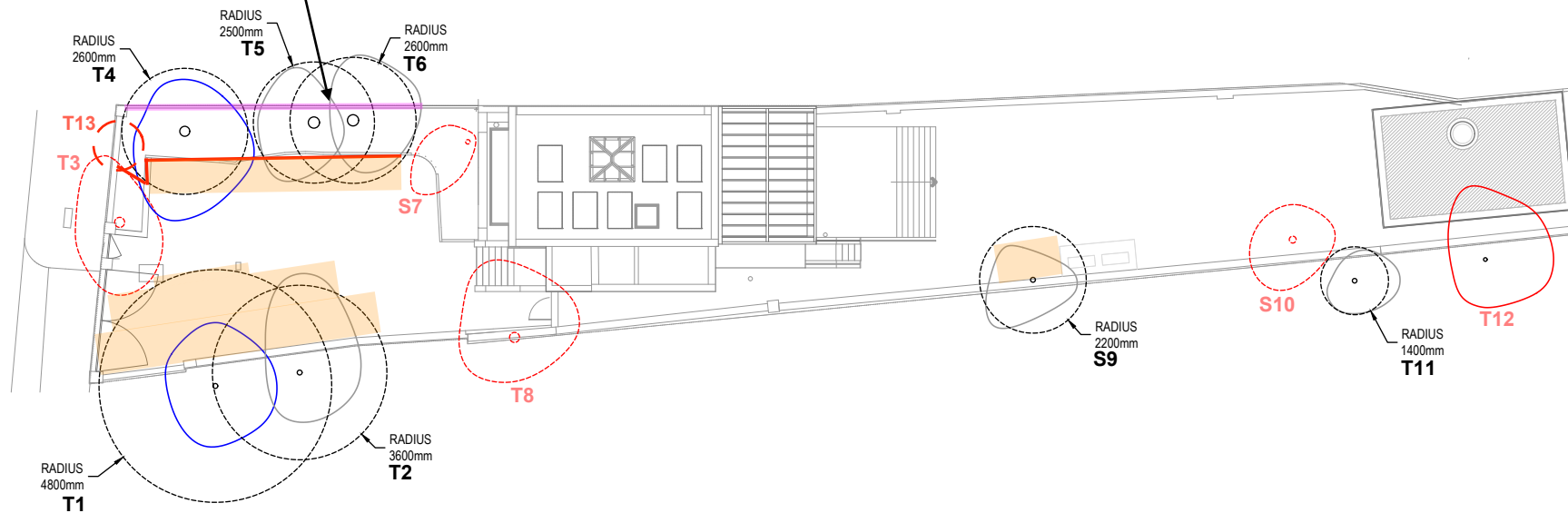
JOB NO AIA/MF/0118/23 DWG NO. T002



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TREE PROTECTION KEY	
	<b>PRECAUTIONARY AREA</b> ALL WORKS UNDERTAKEN IN ACCORDANCE WITH AMS FOR GROUND WORKS / EXCAVATIONS
	<b>TREE PROTECTION FENCING</b> FIGURE 2 FENCING (BS5937:2012)
	<b>GROUND PROTECTION</b> GROUND PROTECTION: EXISTING HARD LANDSCAPES RETAINED / GROUND PROTECTION BOARDS FOR SOFT LANDSCAPED AREAS NO EXCAVATIONS PERMITTED

KEY	
	CATEGORY A
	CATEGORY B
	CATEGORY C
	CATEGORY U
	TREES REMOVED
	RPA
	RPA INCURSION



- BS5837 (2012) Tree Survey Notes**
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**BASAL SHUTTERING SPECIFICATION - EXAMPLE SPECIFICATION**

**KEY**

The fencing must fully enclose the main stem and initial buttress roots of the tree by being constructed as a self supporting structure to the following specifications:

Minimum height: 2.4m  
Plywood Specification: 25mm thickness, external grade  
Supporting Structure: 4" x 2" softwood timbers to form structure within shuttering

**NOTE:** - No ground supports permitted  
- Structural integrity of structure to be determined by building contractor and approved by supervising

**TREE PROTECTION NOTICE**

**FIGURE 2 FENCING**

**KEY**

- 1. Standard scaffold pipe
- 2. Three equal or slightly greater diam and welded mesh stiff panels
- 3. Posts spaced to lengths and cross members with wire ties
- 4. Standard gate
- 5. Height of steel over the ground will ensure minimum depth 600
- 6. Standard scaffold brace

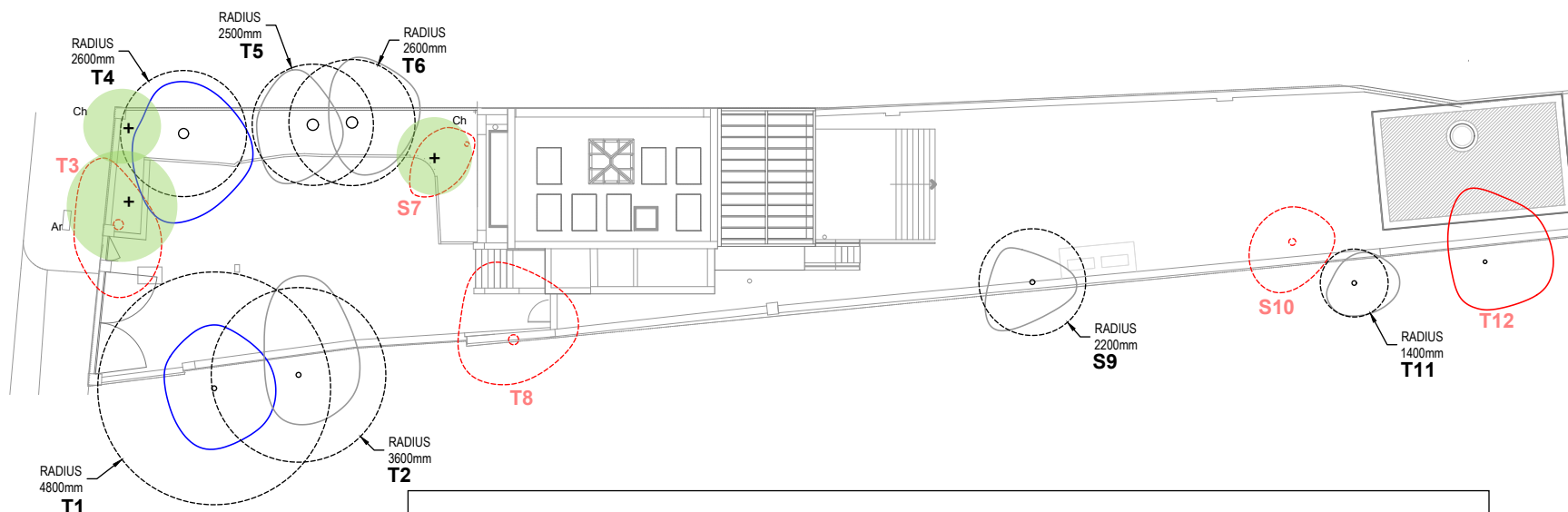
Revisions			
Rev.	Date	Checked	Checked
/	30.06.2023	ISSUED FOR INFORMATION	MF
/	20.10.2023	ISSUED FOR INFORMATION	MF
/	26.10.2023	ISSUED FOR INFORMATION	MF
/	03.07.2024	ISSUED FOR INFORMATION	MF
/	11.12.2024	ISSUED FOR INFORMATION	MF

<b>SITE</b>	133 Haverstock Hill, London, NW3 4RU
<b>CLIENT</b>	Firstplan
<b>DWG TITLE</b>	Tree Protection Plan
<b>SCALE</b>	DATE
1:200 @ A3	JUN 2023
<b>JOB NO</b>	<b>DWG NO.</b>
AIA/MF/0118/23	T003



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KEY	
	CATEGORY A
	CATEGORY B
	CATEGORY C
	CATEGORY U
	TREES REMOVED
	RPA
	RPA INCURSION
	REPLACEMENT TREE



- BS5837 (2012) Tree Survey Notes**
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  - Marcus Foster Arboricultural Design & Consultancy accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
  - Off site trees have been plotted based on site visit survey and locations are not based upon topographical survey.

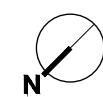
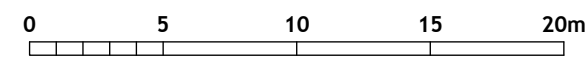
**NOTE:** Tree survey locations based on previous undertaken topographical surveys for design issue and additional GIS mapping has not been undertaken for the purposes of this survey. All off site trees where not plotted within topographic survey information are plotted using on site survey tools from within the site only.

TREES	QUANTITY	SIZE
<i>Acer rubrum</i> 'Red Sunset' (Ar)	1	Heavy Standard, 12-14cm girth
<i>Cornus</i> 'Norman Hadden' (Ch)	2	2.0-2.5m multi-stem

- TREE PLANTING METHODOLOGY**
- The ground will be cleared of vegetation / turf with this removed from the planting site to avoid backfill
  - The tree pit depth must be no deeper than bare root tree
  - The tree pit sides should not have smeared or glazed sides as this may inhibit lateral root growth
  - Tree pit shall be a minimum of 75mm diameter wider than the root system
  - Where the pit is excavated topsoil and subsoil should be separated where possible for backfilling to appropriate area
  - The root system should be wetted prior to planting
  - Planting at correct level must occur
  - The base of tree / fare at base must be flush with host surface
  - Backfilling shall be gradual in 150-200-mm layers replicating layers of soil prior to excavating tree pit
  - The final layer shall not be backfilled but be left to allow for settlement and mulching
  - The planting pit / tree shall be saturated to field capacity upon completion of planting
  - Staking should be applied at appropriate stage (below ground during planting process and above ground during to the 13.following specification
    - To be 100mm diameter softwood treated limber rounded stake rubber tie around stem
    - To be a maximum one third height of the tree as per BS4043
    - To be positioned leeward of the prevailing wind to provide support
  - The surface of the planting areas shall be mulched with a minimum 50mm depth layer of 15-65mm nominal particle size.

Revisions			
Rev.	Date	Issued For Information	Checked
/	30.06.2023	ISSUED FOR INFORMATION	MF
/	20.10.2023	ISSUED FOR INFORMATION	MF
/	26.10.2023	ISSUED FOR INFORMATION	MF
/	03.07.2024	ISSUED FOR INFORMATION	MF
/	11.12.2024	ISSUED FOR INFORMATION	MF

SITE	133 Haverstock Hill, London, NW3 4RU
CLIENT	Firstplan
DWG TITLE	Replacement Tree Planting
SCALE	DATE
1:200 @ A3	JUN 2023
JOB NO	DWG NO.
AIA/MF/0118/23	T001



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## **Appendix C:** **Tree Survey Photographs**

133 Haverstock Hill  
London  
NW3 4RU

Taken by M Foster



Tree T1-T2 viewed to west (off site)



Tree T1-T2 viewed to west (off site)



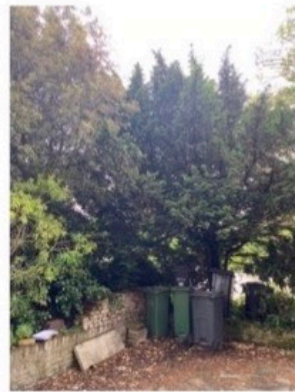
Trees T3 & T4 viewed to south



Trees T5, T6 & S7 viewed to south west



Trees T8 viewed to north west



Tree T4 viewed to south



Rear garden - garden building location



Rear garden - S10-T12 viewed to west



Rear garden - garden building location viewed to south west



Rear garden - S9-T12 viewed to west



Rear garden - S9-T11 viewed to north east

## **Appendix D:** **Tree Protection Notice**

Generic Tree Protection Notice  
(BS5837: 2012):

*Notice to be clearly shown on site where  
fencing constructed  
AT ALL TIMES*





# **Appendix E**

## **Tree Protection Fencing Specifications**

### **TREE PROTECTION FENCING SPECIFICATION** **(BASAL SHUTTERING)**

#### **BASAL SHUTTERING**

##### Specification of Basal Shuttering Tree Protection

The fencing must fully enclose the main stem and initial buttress roots of the tree by being constructed as a self supporting structure to the following specifications:

Plywood Specification: 25mm thickness, external grade  
Supporting Structure: 4" x 2" softwood timbers to form structure within shuttering

*NOTE: - No ground supports permitted*

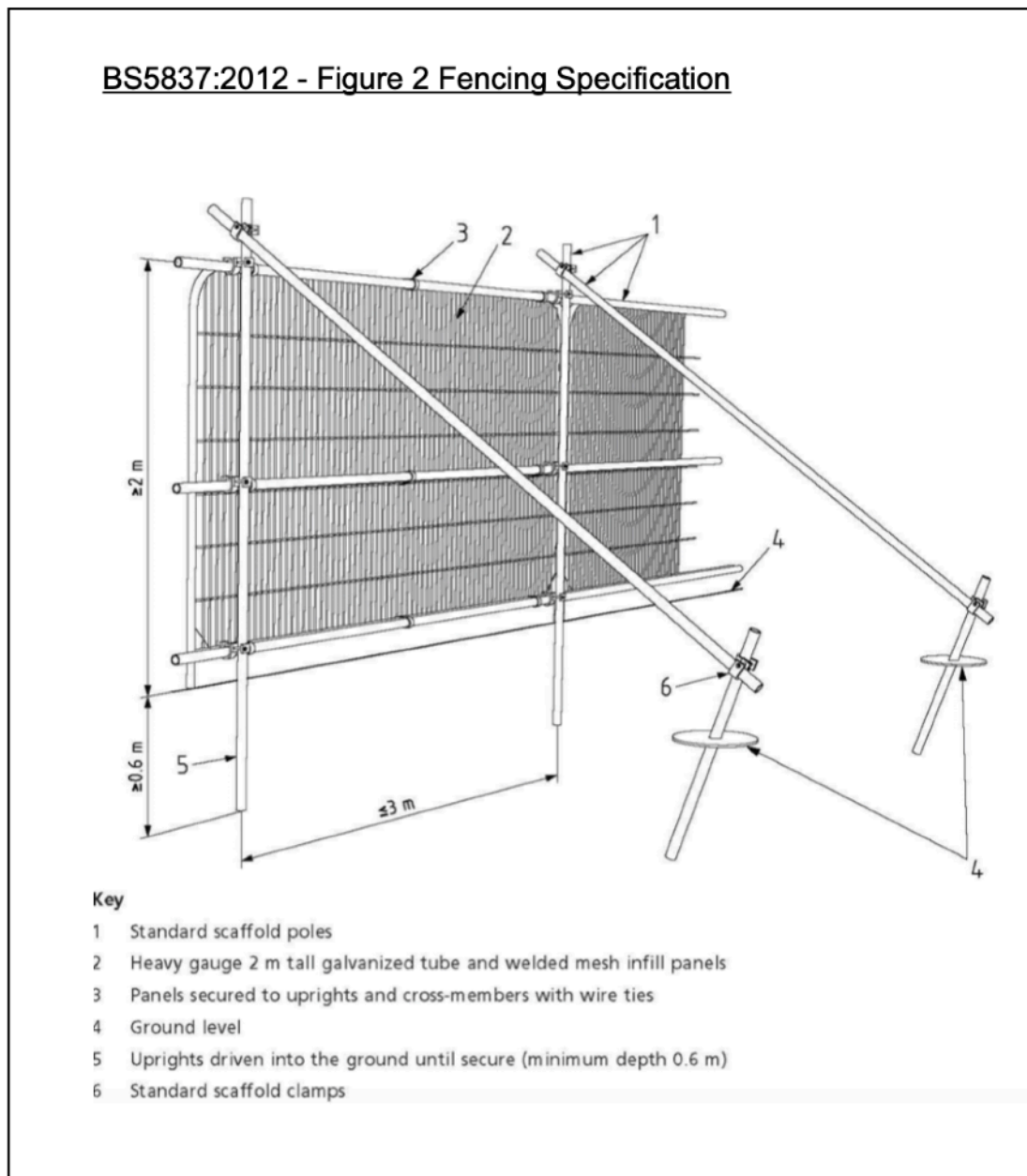
*Structural integrity of structure to be determined by building contractor and approved by supervising arboriculturist*

Tree Protection Fencing Notices: 5 x Notices

##### Example of Basal Shuttering Tree Protection



## TREE PROTECTION FENCING SPECIFICATION (FIGURE 2)



## **Appendix F: References**

1. BS5837: British Standard: Trees in relation to design, demolition and construction - Recommendations, British Standard (2012)
2. Principles of Tree Hazard Assessment and Management, Lonsdale, D. (Department for Transport, Local Government and the Regions, 1999)
3. The Body Language of Trees, Mattheck, C. and Breloer, H. (HMSO, 1994)
4. Trees in Britain, Philips, R. (Pan Books, 1978).
5. Diagnosis of Ill Health in Trees, Strouts, R. and Winter, (TSO, 1994)
6. National Planning Policy Framework February 2019 Ministry of Housing, Communities and Local Government
7. London Plan - G7 Trees and Woodlands (Greater London Authority) - 2021.
8. NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2), (November 2007)

**PREPARED BY MARCUS FOSTER** MArborA  
**END OF REPORT \_ Page 35/35**