

# Marcus Foster Arboricultural Design & Consultancy

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

<u>Site</u>

1a Adamson Road London NW3 3HX

<u>Client</u>

Easton Design Studio

Date of Report:

January 2023

Report Reference:

AIA/MF/012/23

Report Prepared by:

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## 1.0 Instructions

1.1 This report has been commissioned by Easton Design Studio to survey, assess and provide an Arboricultural Impact Assessment and Method Statement for the trees sited within close proximity of proposed development works at 1a Adamson Road, London, NW3 3HX.

## 2.0 Introduction

2.1 A site visit was conducted on 17th January 2023 to survey and assess the trees. The weather at the time of inspection was bright and mild with trees in mid winter season.

2.2 The tree survey, report and recommendations have been compiled for the 2 no. trees and 2 no. shrubs (S1, T2, S3 & T4) 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-T003 Appendix B, and these correspond to the tree survey schedule -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 2 no. trees and 2 no. shrubs (S1, T2, S3 & T4) 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 (overmature)
- Vigour: 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 m2 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 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.

#### Т4

#### 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.

#### **T2**

#### 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.

S1 & S3

#### 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.

#### N/A

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 2 no. trees and 2 no. shrubs (S1, T2, S3 & T4) are located within London Borough of Camden. The following statutory checks have been made for the site:

CONSERVATION AREA STATUS Belsize Park Conservation Area, 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 Reference to aerial maps confirms location of the property which is a semidetached property with front and rear gardens laid to hard and soft landscapes:



Extract from *GoogleMaps* 

6.3 The underlying soil to this area is classified as 'clayey loam to silty loam' within the UK Soil Observatory (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; the soil is deemed as being of medium to heavy texture with more susceptibility to compaction. Any tree 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.



6.4 Reference to <u>www.ukso.org</u> maps show as below:

Extract from Soil Observatory - 20/01/23 - www.ukso.org

6.5 For the purposes of this report, reference has been made to the following plans for the proposed development:

Easton Design Studio 221205\_410\_Planning - Proposed Upper Ground Plan 221205\_410\_Planning - Existing Upper Ground Plan 221205\_410\_Planning - Proposed Ground Plan 221205\_410\_Planning - Existing Ground Plan 221205\_410\_Planning - Proposed Basement Pla

The proposed development includes:

- •General refurbishment works
- •Rear extension
- •Basement excavations
- •Final landscape works

6.6 For the purposes of this report and the proposed development, the trees were surveyed from within the site and the public highway. Those trees within and neighbouring the site were deemed with trees surveyed as follows:

1a Adamson Road: Shrub S1 3 Adamson Road: Shrub S3 45 Buckland Crescent: Tree T2 Public highway - Adamson Road: T4

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

•Loss of 1 no. 'C' Category shrub

•Level changes / development outside of RPA of off site trees to north and west

•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

6.8 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 shrub loss only where proposed for removal; no trees are proposed for removal

#### Arboricultural Impact Assessment

6.9 The trees and shrubs surveyed within the site and off site where included within the survey are of the following species:

London plane (*Platanus x hispanica*) Elder (*Sambucus nigra*)

6.10 The main attributes of the trees and shrubs are as follows:

(i) Large shrub / small tree S1 (Elder) sited at rear of ornamental value only and limited amenity value by virtue of small and cyclically reduced size; similarly sized off site Elder (T3) to north east

(ii) Off site tree (T2) offering good amenity value at distance from proposed development

(ii) No trees are located at the front of property but there is a public highway London plane tree (T4) within the highway which are relevant to development proposals for transport and deliveries / site infrastructure

#### 1a Adamson Road - Shrub Removal

6.11 The only tree / large shrub within the rear garden impacted by development proposals - Elder, S1 - shall be removed by virtue of location within the existing retained planted. Whilst this planter shall be partially retained the shrub's location of the front shall mean removal is required. The loss of this shrub does not require mitigation due to limited amenity value and shrub status only.

#### <u> 3 Adamson Road - Shrub S3</u>

6.12 The neighbouring Elder, S3 shall remain unaffected by proposed development works by virtue of the following factors:

- off site location and very limited overhanging crown (maximum 500mm branch lengths at elevated height due to site topography
- RPA with no incursion and none projected in long term due to shrub form
- Existing topography / retaining walls retaining proposed site of development

#### 45 Buckland Crescent

6.13 The neighbouring London plane - T2, a 'B' category tree shall remain unaffected by proposed development works by virtue of the following factors:

- off site location and no overhanging crown to subject site with all crown to the south within the first floor flat garden (garden is divided)

- RPA with no incursion and none projected in long term due to
  - pollarded / cyclically managed form of tree
  - existing topography / retaining walls retaining within proposed site outside of RPA

6.14 Therefore no protection measures are applicable for tree T2 other than retention of existing boundary treatments to rear boundary as shown within the TPP.

#### Public highway - Adamson Road: T4

6.15 The public highway tree is rated as a 'A' category tree due to mature age and high visual amenity value. The site footprint shall not be affected with basement excavations to the rear of property outside of RPA only.

6.16 The following tree protection measure shall be applicable to ensure protection from the development process including deliveries:

#### (i) TREE PROTECTION FENCING

Tree protection fencing to create shuttering from front of site activities associated with construction works; this shall be implemented as shown within the AMS & TPP

#### Summary of Arboricultural Impact

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

Tree Protection applicable to the following trees: *T2, S3 & T4* 

Mitigation applicable for the removal of the following shrub: None applicable due to loss of 1 no. shrub only (S1) 6.18 The limited impact to those trees surrounding the site with applied tree protection measures shall ensure that the development does not detrimentally impact the amenity value and canopy cover of the area.

6.19 In summary the arboricultural impact as outlined within drawing T003 - Tree Protection Plan (TPP): require the following tree protection measures for those trees retained:

(i) TREE PROTECTION FENCING(ii) FACILITATIVE TREE WORKS

## 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 included within Schedule of Works - Section 8 - shall be undertaken at pre-commencement stage.

#### 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:

(i) Basal Shuttering - see TPP & Appendix E for tree T4

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
- •Once the Exclusion Zone / fencing 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 TP

### 7.4 Ground Protection

7.4.1 No ground protection shall be required.

#### 7.5 Precautionary Area Works

7.5.1 No Precautionary Area works / excavations within the RPA of retained trees shall be required.

#### 7.6 Storage of Construction site related materials, plant and spoil /

7.6.1 A designated storage area 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.

#### 7.7 Site Welfare & Site Office

7.7.1 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.

#### 7.8 **Fires**

7.8.1 There must UNDER NO CIRCUMSTANCES be fires within this site.

#### 7.9 Installation of utility services

7.9.1 The installation and/or amendment of utility services within the RPA of retained trees is not required as the existing garden building has services connected. However where an amendment is required and utilities are required within the RPA of any retained tree the consulting arboriculturist and Local Authority must be notified prior to any ground tree protection / fencing and barrier removal and the following details adhered to:

- 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.

7.9.2 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

Name - Marcus Foster MArborA Telephone - 07812024070 Contact - Marcus Foster Email - mail@marcus-foster.com

### 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

## 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 confirmed at pre-commencement meeting

TREE WORKS SCHEDULE: 1a Adamson Road, London, NW3 3HX								
Tree / Shrub No.	Common Name	BS5837 Category	Tree Works	Reasons for works				
S1	Elder	С	Fell to ground level and grind out stump	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)

1a Adamson Road London NW3 3HX

Colour Key: BS5837: 2012 (see Section 3.6)



# BS5837:2012 TREE SURVEY SITE: 1a Adamson Road, London, NW3 3HX DATE OF SURVEY: 17th January 2023

Root Protection Area (RPA) Radius (m)	1.0	9.6	1.0	10.8
Root Protection Area (RPA) m2	3.14	289.57	3.14	366.48
First canopy height (m)	7	ω	7	10
First branch height (m)	7	ω	7	10
Comments / Structural Condition	Ornamental shrub within raised border	Off site to north west. Brick built boundary wall between tree and neighbours (first floor flat garden). Pollarded at 7-12m height - lapsed 1 years growth. Existing level changes to garden are stepped: 1.0m downwards and 1.4m further to lower garden level	Off site to east - ornamental shrub	Off site within public highway. Breedon gravel planting pit. Pollarded at 7-12m height, lapsed 4-5 years
Remaining Contribution (years)	10 years +	20 years +	10 years +	40 years +
BS5837 (2012) Rating	C	B1	C2	A1
Vitality	ш	U	ш	U
Structural Condition	ш	ш	ш	ш
Age	SM	EM	SM	Σ
Spread (m) N/E/S/W	0-	-000	4000	ຄອດອ
(mm)	M/s 100	800 (e)	M/s 100 (e)	006
Height (m)	4	5	16	18
Species	Elder	London plane	Elder	London plane
Tree No	S1	2	S3	14

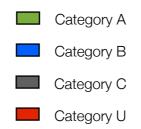
AIA/MF/012/23: BS5837:2012 Tree Report Site: 1a Adamson Road, London, NW3 3HX Prepared for: EDS Date: January 2023

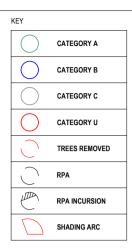
# Appendix B

Existing Tree Survey (T001) Tree Constraints Plan (T002) Tree Protection Plan (T003) (BS5837:2012)

> 1a Adamson Road London NW3 3HX

Colour Key: BS5837: 2012 (see Section 3.6)





#### BS5837 (2012) Tree Survey Notes

1. In accordance with BS5837(2012) this drawing is a colour coded schedule and should not be read in black and white

2. If received electronically it is the recipients responsibility to print this drawing to correct scale. Only written dimensions should be used where not printed to scale.

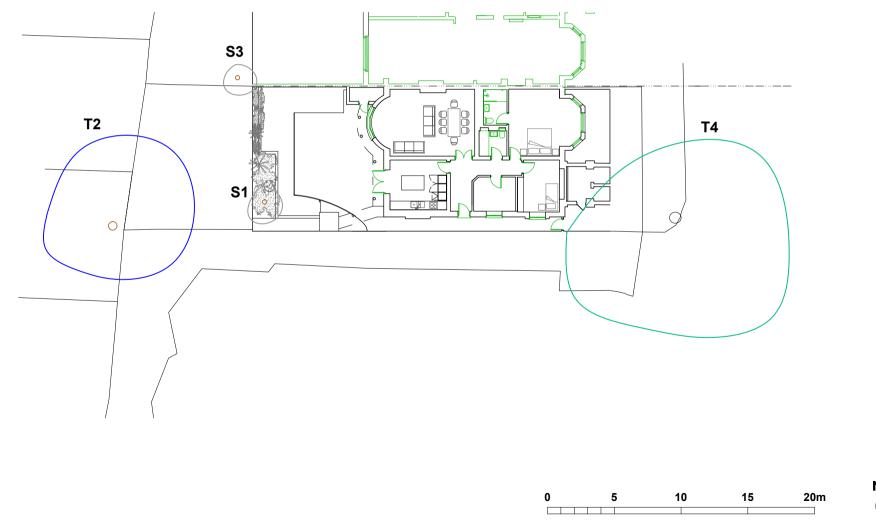
3. This drawing should be read in conjunction with all other relevant drawings and specifications

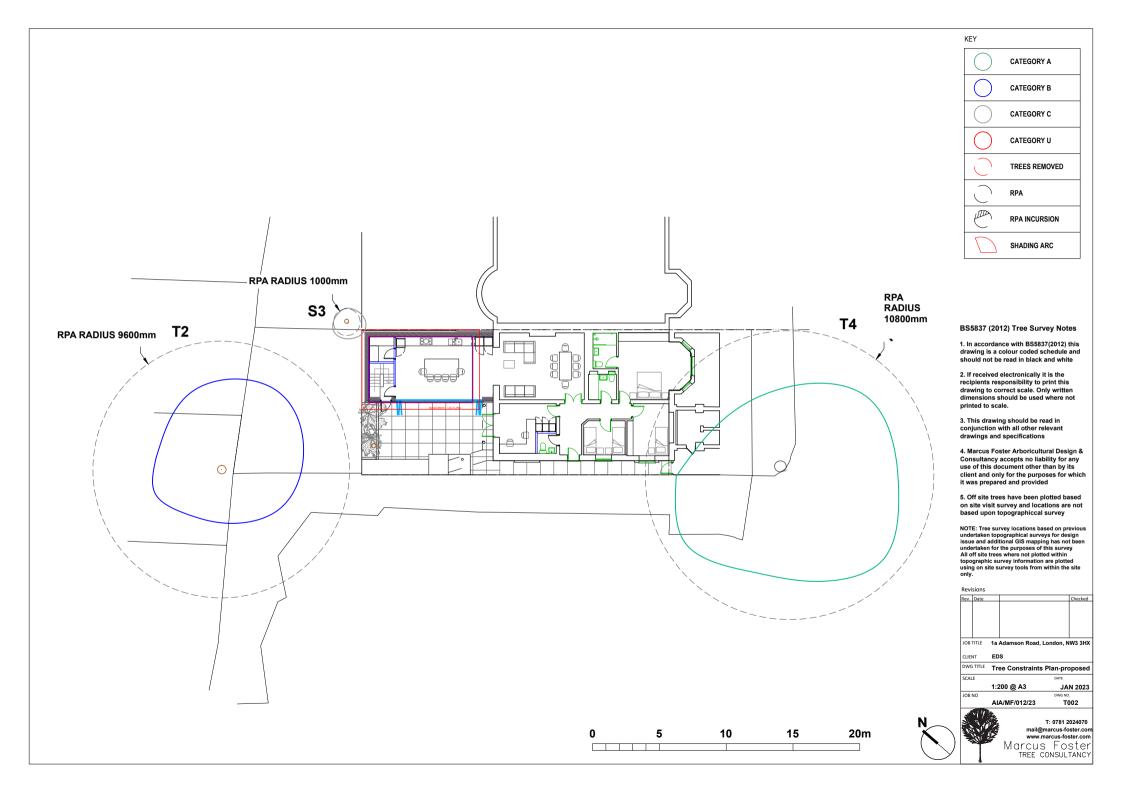
4. Marcus Foster Arboricultural Design & Consultancy accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided

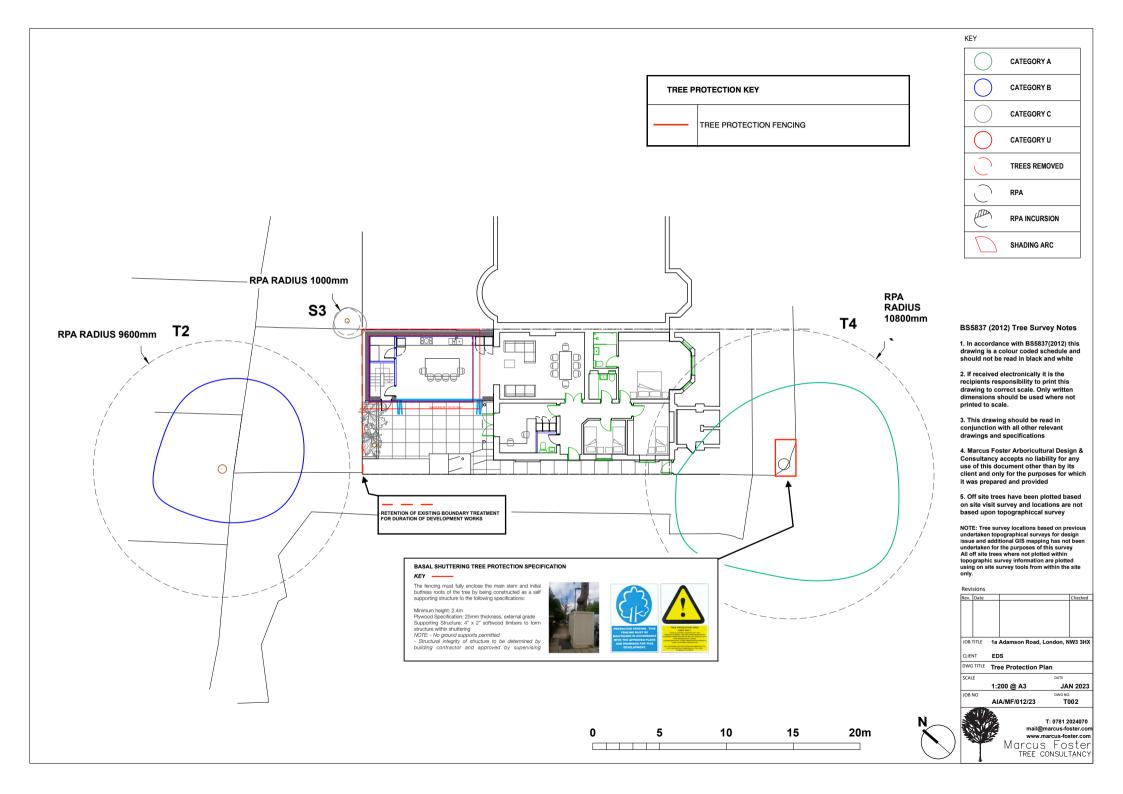
5. Off site trees have been plotted based on site visit survey and locations are not based upon topographiccal survey

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.

	Revi	sions			
	Rev.	Date			Checked
	JOB TITLE		1a Adamson Road, London, NW3 3HX		
	CLIE	NT	ED	s	
	DWG TITLE		Ex	isting	
	SCALE				DATE
			1:2	:00 @ A3	JAN 2023
	JOB NO				DWG NO.
				A/MF/012/23	T001
	3	SPT	De.		







# <u>Appendix C:</u> <u>Tree Survey Photographs</u>

Site / Tree Survey Photographs (17/01/23) for: 1a Adamson Road, London, NW3 3HX



Rear garden / tree T2 as viewed to north west from side access



Shrub S1 and T2 viewed to west



Rear garden / tree T2 as viewed to north west from ground floor of subject site



Tree T4 at front of property viewed to west



Off site tree T2 viewed to north west



Tree T4 - planting pit - viewed to north



Western boundary - climbers only



Tree T4 - planting pit - viewed to south

# Appendix D: Tree Protection Notice

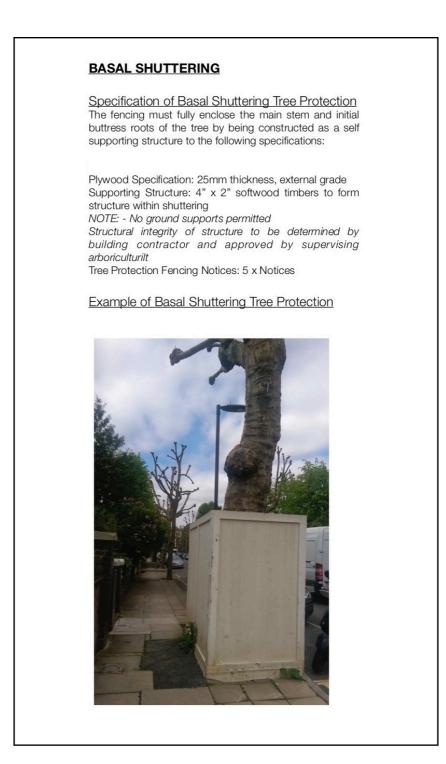
Generic Tree Protection Notice (BS5837: 2012):

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



# <u>Appendix E</u> <u>Tree Protection Fencing Specifications</u>

## BASAL SHUTTERING SPECIFICATION



AIA/MF/012/23: BS5837:2012 Tree Report Site: 1a Adamson Road, London, NW3 3HX Prepared for: Easton Design Studio Date: January 2023

# **Appendix F: References**

- 1. BS5837: British Standard: Trees in relation to 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 III Health in Trees, Strouts, R. and Winter, (TSO, 1994)
- 6. National Planning Policy Framework February 2019 Ministry of Housing, Communities and Local Government
- 7. 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 28/28