



BS5837:2012

**Trees in relation to design, demolition and construction –
Recommendations**

Tree Survey

Hadji Osman Cikkicioglu

Land at the rear of St. Ann's Mosque,
277 St Ann's Road,
London,
N15 5RG

23 November 2021

Author: Chris Wren- BSc (Hons) TechArborA

Introduction

Arbtech Consulting Limited (Arbtech) received written instruction on 13th October 2021 from Hadji Osman Cikkicioglu to attend Land at the rear of St. Ann's Mosque, 277 St Ann's Road, London, N15 5RG; grid reference, TQ 32796 88580 (site) to undertake an arboricultural survey a to BS5837:2012 guidance to assess trees, hedges and major shrub groups growing on and within influencing distance of the site and to produce a Schedule of trees and Tree Constraints Plan.

I am Chris Wren, an arboricultural surveyor for Arbtech Consulting Ltd. I undertook the tree survey on 16th November 2021 and subsequently, have produced this summary of my findings.

I have ten years of industry experience and hold a BSc (Hons) in arboriculture and urban forestry. I am also a technician member of the Arboricultural Association.

The advice below and appended is underwritten by our Professional Indemnity insurance for the business practice of Arboricultural Consultancy in the sum of one million Pounds Sterling in each and every claim.

Table 1: Documents referred to.

Document	Reference No.
Survey base drawing	OS tile
LPA pre-app comments	N/A
British Standard 5837:2012	"BS5837"
Tree Survey Schedule	Arbtech TS 01
Tree Constraints Plan	Arbtech TCP 01

Tree Survey

Survey: An arboricultural survey to BS5837 of all trees within impacting distance of the site was undertaken by Chris Wren on 16th November 2021.

During the survey, I categorised the trees using "Table 1 – Cascade chart for tree quality assessment" of the BS5837:2012 (see Appendix 1).

A total of 7No individual trees and 1No groups of trees were surveyed. Details for each of the trees surveyed are provided in the Schedule of Trees (see Appendix 2).

Multiple trees occupy the site outside the surveyed area, all of which are outside impacting distance from the proposed development.

Table 2: Documents upon which this tree survey has been based.

Document	Originator	Reference Number	Title
OS Tile	-	-	

Limitations: The survey was made at ground level using visual observation only. Detailed examinations, such as climbing inspections and decay detection equipment were not employed, though may form part of the survey's management recommendations. Measurements were taken using specialist tapes, laser and GPS devices. Where this was not possible, measurements are estimated.

Scope: Pre-development tree surveys make arboricultural management recommendations based exclusively upon the individual tree or group of trees condition relative to their present context (*i.e. not in relation to the proposed development*).

Legal Status: No statutory protection check has been performed. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order ("TPO"), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

* For more information on the surveyed trees please see Arbtech Consulting Ltd, Tree Survey Schedule (Appendix 1), Tree Survey Report and Tree Constraints Plan.

Site description

The proposed development site is located south of St Ann's Road. The Site is bound by St Mary's Convent to the south, the Mosque gardens to the north, Suffolk Road to the east and the former Servite Sisters Church to the west. The land falls within the St. Ann's Conservation Area and forms part of a larger gated land known as Sheikh Nazim Sufi Centre (Dergah). The site is uniformly level.

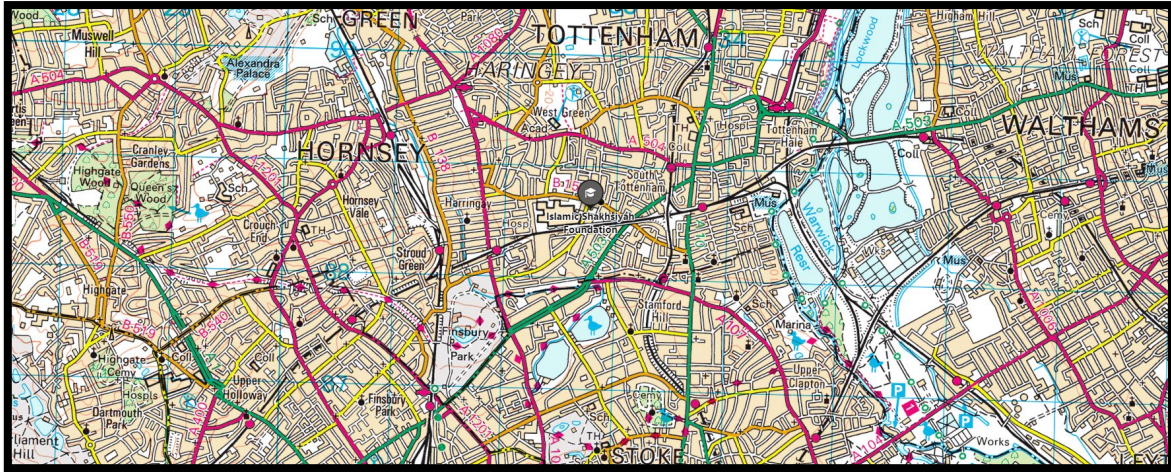


Figure 1: OS Map (Bing Maps)



Figure 2: Aerial Image of Site with blue line denoting surveyed area (Google Maps)

The proposed scheme will entail the erection of a 3-storey detached family house at the rear of the Sheikh Nazim Sufi Centre. A car parking space will also be provided with external works comprising landscaping and access from Suffolk Road.

It is likely that arboricultural impacts can be addressed with arboricultural methodology or minor amendments to the proposal.

BS5837:2012 Scope

This standard recognises that there can be problems for development close to existing trees which are to be retained, and of planting trees close to existing structures. This standard sets out to assist those concerned with trees in relation to construction to form balanced judgements. It does not set out to put arguments for or against development, or for the removal or retention of trees. Where development, including demolition, is to occur, the standard provides guidance on how to decide which trees are appropriate for retention, on the means of protecting these trees during development, including demolition and construction work, and on the means of incorporating trees into the developed landscape.

Methodology

The methodology used to assess the trees was the British Standard 5837:2012 'Trees in Relation to Construction' tree survey method. The aim of the survey is to establish which trees are moderate and good quality; suitable for retention and justifying protection. And, which trees are low or poor quality; either undesirable or unsuitable to retain and protect.

The tree survey includes all trees included in the land survey red line boundary plan, as well as any that may have been missed, and it should categorize trees or groups of trees, including woodlands for their quality and value within the existing context, in a transparent, understandable and systematic way. Where the arboriculturist has deemed it appropriate, the trees have been tagged with small metal or plastic tags, placed as high as is convenient on the stem of each tree.

Whilst master plan proposals for the development of the site might be available, the trees have been surveyed without taking these into consideration. All detailed design work on site layout should take into consideration the results of the tree survey (and the TCP).

Trees forming groups and areas of woodland (including orchards, wood pasture and historic parkland) are identified and considered as groups where the arboriculturist has determined that this is appropriate, particularly where they contain a variety of species and age classes that could aid long-term management. It is often expedient to assess the quality and value of such groups of trees as a whole, rather than as individuals. However, an assessment of individuals within any group has been

undertaken if they are open-grown or if there is a need to differentiate between them.

The quality and value of each tree or group of trees has been recorded by allocating it to one of the four categories: A, B, C, or U (highest to lowest quality respectively). The categories are differentiated on the tree survey plan by colour, or by suffixing the category adjacent to the tree identification number on the TCP.

The survey schedule lists all the trees or groups of trees. The following information is also provided:

- Sequential reference number (to be recorded on the tree survey plan);
- Species (common and/or taxonomic names);
- Height in meters (m);
- Trunk diameter in millimetres (mm) at 1.5 m above adjacent ground level or immediately above the root flare for multi-stemmed trees;
- Crown (branches) spread in meters taken at the four cardinal and/or intercardinal compass points;
- Height of crown clearance above adjacent ground level in meters (m);
- Age class
- Physiological condition
- Structural condition
- Comments/description of features
- Estimated remaining contribution
- Retention Category as described by application of the BS5837:2012 **Cascade Chart for Tree Quality Assessment (Appendix 1)**

Definitions

Arboriculturist

An arboriculturist (or arboricultural consultant) is a person who has, through relevant education, training and experience, gained recognized qualifications and expertise in the field of trees in relation to construction.

Tree Survey

A tree survey should be undertaken by an arboriculturist and should record information about the trees on a site independently of and prior to any specific design for development. As a subsequent task, and with reference to a design or potential design, the results of the survey should be included in the preparation of a tree constraints plan, which should be used to assist with site layout design.

Tree Constraints Plan

A TCP is a plan, typically delivered as an AutoCAD drawing (.dxf or .dwg file format), prepared by an arboriculturist for the purposes of layout design showing the root protection area and representing the effect that the mature height and spread of retained trees will have on layouts through shade, dominance, etc.

Root Protection Area

An RPA is a layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m².

Construction Exclusion Zone (also termed Tree Protection Zone)

A construction exclusion or tree protection zone is an area based on the RPA (in m²), identified by an arboriculturist, to be protected during development, including demolition and construction work, by the use of barriers and/or ground protection fit for purpose to ensure the successful long-term retention of a tree.

Arboricultural Impact Assessment

This is a study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

Tree Protection Plan

A TPP is a plan, typically delivered as an AutoCAD drawing (.dwg file format), prepared by an arboriculturist showing the finalized layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement, which can be shown graphically.

Arboricultural Method Statement

This is a methodology for the implementation of any aspect of development that has the potential to result in loss of or damage to a tree. The AMS is likely to include details of an on-site tree protection monitoring regime.

Recommendations

With the benefit of making an assessment of your planning proposals, we make the following recommendation to ensure that there are no irrevocable issues to the proposed retained trees and so that no conditions relating to arboriculture are attached to any planning consent secured; obtain an arboricultural report to include:

- a) An arboricultural impact assessment (AIA);
- b) An arboricultural method statement (AMS); and
- c) A tree protection plan drawing (TPP).

Limitations

Trees were inspected from using visual observation from ground level only. Trees were not climbed or inspected below ground level. Inaccessible trees will have best estimates made about the location, physical dimensions and characteristics. Trees have been grouped where BS5837 guides us that it is expedient to do so. Trees have been excluded from the survey if they are found by us to be sufficiently far away from the proposed developable area or if they are outside of the red line boundary plan showing the expectations of our Client for the extent of the survey. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order (“TPO”), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

Appendices

The following documents were released to the Client as appendices to this report:

- Survey Schedule (.pdf)
- Tree Constraints Plan drawing (.dwg/.dxf & .pdf)

If you require clarification of information contained herein, please do not hesitate to contact us via 01244 660558.

Yours Sincerely,



Chris Wren BSc (Hons) TechArborA. Arboricultural Surveyor

Appendix 1: Cascade Chart for Tree Quality Assessment

Cascade Chart for Tree Quality Assessment (BS5837:2012)

Category and definition	Criteria (including subcategories when appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those 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	- Trees that have serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve; see 4.5.7.</i>			Dark red
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Light green
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remedial defects, including unsympathetic management and storm damage), such that they are unlikely to be suitable for retention of beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	Mid blue
Category C Trees of low quality with an estimated remaining expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape value	Trees with no material conservation or other cultural value	Grey

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Appendix 2: Schedule of Trees

BS5837:2012 Tree Survey

Arbtech Consulting Ltd.

Client: Hadji Osman Cikkicioglu
 Project: Land at the rear of St. Ann's Mosque, 277 St Ann's Road,
 London, N15 5RG

Survey Date: 16/11/2021

Surveyor: Chris Wren



Unit 3, Well House Barns
 Chester Road
 Chester
 Cheshire
 CH4 0DH
 Phone: 01244 661170

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC	
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment				
G01												Estimated Measurements			
Lawson Cypress <i>Chamaecyparis lawsoniana</i>		20	1	550	N	5	5	M	A: 136.9 R: 6.6	Good	C: Good S: Not visible B: Not visible	Stems obscured by canopy. Stems physically inaccessible due to proximity of fencing and outbuildings. Basal area and lower 2m of stems obscured by 2m fencing and single story outbuildings. Dimensions recorded represent the average for the group. Works have been planned for this group with a Section 211 notice for the St Anns conservation area retuning with no objection. Further details in appendix 4			B.1 20+ yrs
T01															
Myrobalan Plum 'Nigra' <i>Prunus cerasifera 'Nigra'</i>		8	1	280	N	4	3	M	A: 35.5 R: 3.36	Good	C: Good S: Good B: Not visible	Asymmetrical crown due to proximity of companion trees. Physical wound on western side of stem just above ground level, wound approx. 420mm tall and 200mm wide with callus wood to 90mm. Basal area obscured by playground hard surface, which is in contact with the whole circumference of the stem.			C.1 10+ yrs
T02															
Wild Cherry <i>Prunus avium</i>		12	1	450	N	5	3	M	A: 91.6 R: 5.39	Good	C: Good S: Ivy B: Not visible	Asymmetrical crown due to historical presence of companion trees. Ivy on stem to apex. Basal area obscured by playground hard surface which is in physical contact with the whole circumference of the stem. Works have been planned for this tree with a Section 211 notice for the St Anns conservation area retuning with no objection. Further details in appendix 4			C.1 10+ yrs
Age Classifications:		N	Newly planted	EM	Early Mature		Condition:		C	Crown	Stems:		Ø	Diameter	
		Y	Young	M	Mature				S	Stem			(Eq)	Equivalent stem diameter using BS5837:2012 definition	
		SM	Semi-mature	OM	Over Mature				B	Basal area	ERC:		Estimated Remaining Contributio		

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T03														
Norway Maple <i>Acer platanoides</i>		12	1	360	N E S W	4 3.5 5 6	6 4 4 3	M A: 58.6 R: 4.31	Fair	C: Good S: Fair B: Not visible	Crimson king variety. Stem constricted at 3m by rope. Constriction old, with approx. 20mm of horizontal growth above and below the point of constriction. Basal area obscured by playground hard surface up to 1m from the stem. Works have been planned for this tree with a Section 211 notice for the St Anns conservation area retuning with no objection. Further details in appendix 4			C.1 10+ yrs
T04														
Leyland Cypress <i>X Cupressocyparis leylandii</i>		9	1	200	N E S W	2 2 2 2	2 2 2 2	EM A: 18.1 R: 2.4	Good	C: Good S: Good B: Not visible	Basal area obscured by debris.			C.1 20+ yrs
T05														
Common Ash <i>Fraxinus excelsior</i>		20	1	910	N E S W	6.5 9 7 7	7 10 10 4	M A: 374.7 R: 10.92	Good	C: Good S: Fair B: Not visible	Crown raised to current dimensions, wounds up to 170mm diameter with callus wood to 60mm. Major deadwood (>75mm diameter and/or longer than 2m) throughout crown. Multiple physical wounds throughout crown, wounds up to 130mm diameter with callus wood visible to 70mm. Fungal fruiting body at 13m on southern side of dominant stem. Fungal fruiting body consistent with Inonotus sp.. Works have been planned for this tree with a Section 211 notice for the St Anns conservation area retuning with no objection. Further details in appendix 4			B.1 20+ yrs
T06														
Common Ash <i>Fraxinus excelsior</i>		20	1	590	N E S W	2 8 3 8	2 4 15 4	M A: 157.5 R: 7.08	Good	C: Good S: Fair B: Not visible	Cause of asymmetrical crown unclear at time of survey. Physical wound on northern stem at 13m. Wound approx. 800mm tall and 230mm wide with callus wood to 100mm. Wound appears to lead to internal cavity. Cavity extent and size is not visible from ground level. Basal area obscured by single story outbuildings and debris. Works have been planned for this tree with a Section 211 notice for the St Anns conservation area retuning with no objection. Further details in appendix 4			B.1 20+ yrs
Age Classifications:		N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:		Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	ERC: Estimated Remaining Contributio

Appendix 3: Tree Constraints Plan

Appendix 4: Summary of Tree Works

Tree no on section 211 application	Corresponding tree no in this report	Species	Accepted works (in the applications words)
T01	T03	Norway Maple	Fell to ground level.
T02	T02	Cherry	Fell to ground level.
T03	T05	Ash	Crown reduce by 3-4m for future management.
T04	T06	Ash	Crown reduce by 4-5m for future management and monitor.
G1	G01	Conifer	Reduce height by 5-6m and selectively reduce sides.

Document Production Record

Document number	Editor	Signature	Position	Issue number	Date
Arbtech TSR 01	Chris Wren		Surveyor	1	23/11/2021

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