TREE CONSULTANTS

ARBORICULTURAL REPORT

to BS 5837:2012 at:

99 South End Road,
London
NW3 2RJ

Prepared for:
David Long Architects
Fordhams,
Littley Green,
Essex
CM3 1BU

Date: *April 2019*

Reference: *AWA2557*

Institute of Chartered Foresters
Registered Consultant

Office: 0114 272 1124 Mobile: 0776 631 0880 Email: info@awatrees.com Website: awatrees.com
Union Forge, 27 Mowbray Street, Sheffield, S3 8EN. AWA Tree Consultants Limited. Company No. 8520123. Registered in England & Wales.

Contents

1. Introduction

1.1 Instructions and Brief

1.1.1 We are instructed by David Long of David Long Architects to visit the site and prepare our findings in a report.

1.1.2 The report is required in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations,* to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 Survey Details

1.2.1 The survey took place during February 2019.

1.2.2 The trees were surveyed visually from the ground using "Visual Tree Assessment" techniques and in accordance with the guiding principles of British Standard 5837:2012.

1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.

1.2.4 We have been provided with a topographical survey with tree positions plotted. Where surveyed trees were not included on the topographical survey the tree positions were plotted using enhanced GPS technology (1-2m accuracy) and laser distance measurer.

1.2.5 This report has been prepared by Mr Adam Winson Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, Principle and Director of AWA Tree Consultants Ltd. The tree survey data collection was carried out by Mr James Brown BSc (Hons) Arboriculture, MArborA, Arboriculturist at AWA Tree Consultants.

1.2.6 Full qualifications and experience are included within **Appendix 1**. Explanatory details regarding the survey methodology are included within **Appendix 2**. A full explanation of the tree data can be found at **Appendix 3**. Full details of all the trees surveyed are found in **Appendix 4**. For tree locations please refer to the Tree Constraints Plan at **Appendix 5.**

2. The Site

2.1 Location & Description

2.1.1 The site is located on South End Road in North London NW3.

2.1.2 The site is a terraced residential property with gardens to the front and rear. Neighbouring residential properties are situated to the east, south and west of the site, with South End Road bordering the site's northern boundary.

2.1.3 The approximate area of the survey is highlighted in the (2018) image below:

3. The Trees

3.1 Legal

3.1.1 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a check should be made with the Local Planning Authority to see if the trees are covered by a Tree Preservation Order or if they are within a Conservation Area. If either applies, then statutory permission is required before any works can take place.

3.1.2 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance. All tree work should be carried out according to British Standard 3998:2010 *Tree Work - Recommendations*.

3.2 Tree Survey Results

3.2.1 The tree survey revealed 8 items of woody vegetation, comprised of 7 individual trees and 1 hedge group. Other less significant shrubs have also been identified on the attached Tree Constraints Plan at Appendix 5, but were not surveyed in detail in this instance.

3.2.2 Of the surveyed trees: 1 tree is retention category 'U', 1 tree is retention category 'B' and 6 trees or hedges are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).

3.2.3 The site's most significant tree is the Magnolia T8, in the property's rear garden, which is in good overall condition and provides moderate amenity value to the site. The crown of the tree is in contact with a neighbouring property to the south; it is recommended to reduce the tree's southern and western crown by around 1m to 1.5m, selectively pruning to suitable points. The pruning works should be undertaken between mid-summer and early autumn, as pruning wounds can bleed if pruned in late winter or early spring. The tree appears to have had minor reduction works to its northern and eastern crown in the past; the recommended reduction works to the tree's southern and western crown would therefore also create a more balanced, even crown form.

3.2.4 The remaining trees and shrubs in the property's front and rear gardens are all low value, retention category 'C'. While collectively the trees and shrubs provide some amenity value, individually they should not pose significant

constraints on development at the site. The shrubs in the property's front garden in particular appear to have been left unmanaged for some time, and if their removal was required for development purposes, replacement planting would easily mitigate for their loss and would likely improve the quality and amenity value of the property's green cover in the long term.

3.2.5 The Yew hedge G6 provides some screening between the site and the neighbouring property to the west but has been poorly pruned in the past which will likely limit its future prospects. The hedge is of very low value and should not pose a constraint on development at the property; the limited screening it currently provides can be easily replaced.

3.2.6 T1 appears to have been dead for some time and is recommended for removal regardless of development at the site.

3.2.7 The Cherry T7 is situated in the front garden of a neighbouring property to the east of the site and so was only given a cursory inspection with measurements estimated and condition values indicative only.

3.2.8 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.

3.2.9 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of the low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

3.2.10 The RPA for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.

3.3 Arboricultural Development Advice

3.3.1 The higher value retention category 'B' trees should be retained, where possible, and incorporated into any new development design.

3.3.2 Where suitable, those category 'C' trees, shrubs and groups with reasonable future prospects (as detailed in Appendix 4) should be retained

as part of any new development. However, care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.

3.3.3 If required by the development proposals, occasional lower value, retention category 'C' trees, shrubs and groups could be removed, and replacement planting would largely mitigate their losses.

3.3.4 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, should be used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.

3.3.5 If construction of new buildings is required within the trees RPA it may be possible to employ special foundation design such as mini/micro pile and suspended beam or a cantilevered foundation.

3.3.6 Construction of hard surfaces, for drives and paths, within the RPA, can have negative impacts on tree roots. However, the potential negative impacts can often be overcome or minimised by employing a 'no-dig' type construction methods with a porous final surface.

3.3.7 The design of the new development should consider tree crown positions in relation to any new dwellings. The dappled shade of a tree is more pleasant than the deep shadow of a building, and some shade from trees may be beneficial. In particular, deciduous trees give shade in summer but allow access to sunlight in winter. Whilst either shade or sunlight might be desirable, depending on the potential use of the area affected, the design should avoid unreasonable obstruction of light and should give adequate provision for future tree growth.

3.4 Protection of the Retained Trees

3.4.1 The retained trees may require protection by fencing in accordance with BS 5837:2012, during the development phase.

3.4.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

4. Signature

I trust this report provides all the required information.

Signed

.....

Adam Winson, *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, AIEEM.*

4th April 2019

AWA Tree Consultants Limited
Union Forge
27 Mowbray Street
Sheffield
S3 8EN

www.awatrees.com

Appendices

Appendix 1: Authors Qualifications and Experience
Appendix 2: Survey Methodology and Limitations
Appendix 3: Explanation of Tree Descriptions
Appendix 4: Tree Data
Appendix 5: Tree Constraints Plan

Appendix 1: Authors Qualifications & Experience

Mr Adam Winson *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered.*

Adam is the company Director and Principle Consultant. He has a mix of the highest level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years, and was awarded an MSc in Arboriculture and Urban Forestry, with distinction. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the Crown Court.

Mr James Brown *BSc (Hons) Arboriculture, MArborA.*

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. James previously worked in Europe's largest tree nursery and has experience of Local Authority tree officer work. His main work consists of tree surveys for development projects and preparing Tree Protection Schemes to BS 5837:2012.

Mr Dave Farmer *FdSc (Arb), MArborA, PTI (Lantra).*

Dave has a Foundation Degree in Arboriculture (with Distinction) and is qualified in Professional Tree Inspection. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. Dave has many years of experience within the tree care profession, including lecturing in arboriculture. His work focuses on diagnosing potential tree risk problems, and recommending appropriate treatments and work programmes.

Dr Felicity Stout *Ph.D, MA, BA (Hons), Cert Ed (Forestry), TechArborA.*

Felicity has worked in the tree care profession for the last 10 years. She has a Certificate in Higher Education in Forestry, with a focus on Urban Forestry. She has practical arboricultural contractor experience and is a qualified and experienced Social Forestry practitioner. Felicity has a PhD in History, with a particular interest in the history of woodland and tree management and has published in The Arboricultural Journal on this subject.

Mr Patrick Rowntree *Cert Arb L3, TechArborA.*

Patrick is a trained arborist with 5 years of experience in both the private and commercial sectors and is a technician member of the Arboricultural Association. Having travelled the world, both working as an arborist and playing professional rugby, Patrick was awarded a Distinction in the Extended Diploma in Forestry & Arboriculture. Patrick now uses his work and education experience at AWA, focusing on accurate tree data collection for tree surveys for development projects and assisting the team in the preparation of tree reports and tree plans to BS 5837:2012.

Appendix 2: Survey Methodology and Limitations of Report

The survey was undertaken in accordance with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations.* The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using 'Visual Tree Assessment' (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837:2012. Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS5837 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998:2010 - '*Tree Work: Recommendations*'.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

Appendix 3: Explanation of Tree Descriptions

HEIGHT of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

CROWN HEIGHT is an indication of the average height at which the crown begins and includes information of the first significant branch and direction of growth.

STEM DIAMETER is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

CROWN SPREAD is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

AGE CLASS of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

PHYSIOLOGICAL CONDITION is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

STRUCTURAL CONDITION is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

LIFE EXPECTANCY is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

Retention Categories

A (marked green on Appendix 5) = retention most desirable. These trees are of very high quality and value with a good life expectancy.

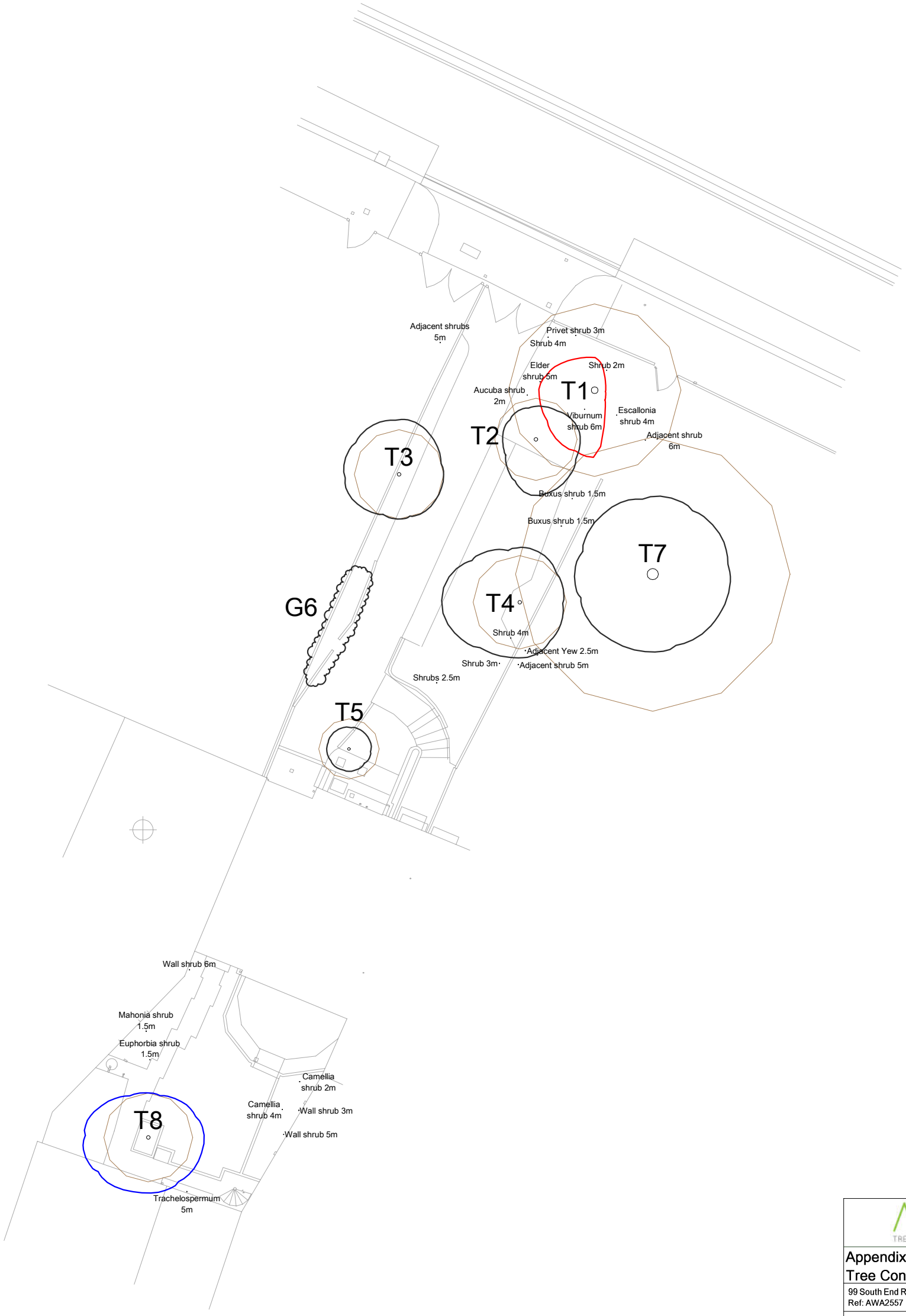
B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

U (marked in red on Appendix 5) = trees for removal. These trees are in such a condition that any existing value would be lost within 10 years.

	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T1	Hawthorn	*Crataegus monogyna*	Dead	6	3	230, 170, 130	No	1	1.5	0.5	3	2.5	Ivy covered	Multiple stemmed at base. Slight lean south. Stubs. Old pruning wounds. Bark damage. Ivy covered. Tight unions	All dead/ absent. Major dieback. Moderate deadwood		Dead	Dead	n/a	Dead	**U**	Removal required regardless of development
T2	Maple	*Acer palmatum*	Semi-mature	4.5	4	100, 60, 50, 80	No	2	1.5	2	2.5	1.5	Ivy covered	Multiple stemmed at base. Slight lean. Old pruning wounds. Stubs	Normal	Numerous old pruning wounds and stubs to main stems	Good	Good	20 to 40 yrs	Moderate	**C**	No works required in current site context
T3	Hawthorn	*Crataegus monogyna*	Semi-mature	6	1	120	No	2	2.5	2	2	2.5	No visual defects	Twin stemmed at base. Vertical. Ivy covered. Stubs. Old pruning wounds. Bark damage. Tight unions	Minor deadwood	Ivy prevented detailed inspection	Fair	Fair	20 to 40 yrs	Moderate	**C**	No works required in current site context
T4	Maple	*Acer palmatum*	Mature	6	1	170	No	1.5	2.5	2	2.5	3.5	No visual defects	Single stemmed. Multiple stemmed at 1.5m. Slight lean north west. Bark damage	Normal	Considerable bark damage	Good	Good	20 to 40 yrs	Moderate	**C**	No works required in current site context
T5	Portuguese Laurel	*Prunus lusitanica*	Semi-mature	5.5	1	110	No	0.5	1	1	1	1	No visual defects	Single stemmed. Vertical	Normal		Good	Good	>40 yrs	Moderate	**C**	No works required in current site context
G6	Yew	*Taxus baccata*	Semi-mature	2	10+	40	No	0.5	See plan				No visual defects	Single and Multiple stemmed. Old pruning wounds. Stubs	50% dead/ absent. Moderate dieback. Minor deadwood. Old pruning wounds	Yew hedge. Poorly pruned. Limited future prospects. Very low value.	Poor	Fair	10 to 20 yrs	Low	**C**	No works required in current site context

	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T7	Cherry	*Prunus sp.*	Early-mature	9	1	500	Yes	3	3.5	3.5	3.5	3.5	Limited access around base	Single stemmed. Vertical. Bark damage. Minor decay. Tight unions. Minor cavities. Epicormic growths	Old pruning wounds. Minor deadwood	Adjacent, no access	Fair	Fair	10 to 20 yrs	Moderate	**C**	No works required in current site context
T8	Magnolia	*Magnolia sp.*	Early-mature	8	4	110, 90, 50, 60	No	1.5	2	2.5	2.5	3	No visual defects	Multiple stemmed at base. Vertical. Old pruning wounds. Stubs	Minor deadwood. Old pruning wounds	In small walled bed. Moderate northern stem previously removed at base leaving stub. Has had previous crown reduction works. Southern crown is in contact with neighbouring property.	Good	Good	>40 yrs	Moderate	**B**	Reduce southern and western crown by around 1m to 1.5m regardless of development, pruning to suitable points. Prune between mid-summer and early autumn.



TREE CONSULTANTS

Appendix 5:
Tree Constraints Plan

99 South End Road, London
Ref: AWA2557

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these catagories can be found in Appendix 2 of the report.

SCALE: 1:200 PAPER: A3

	CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE
	CATEGORY B: MODERATE VALUE RETENTION DESIRABLE
	CATEGORY C: LOWER VALUE COULD BE RETAINED
	CATEGORY U: FOR REMOVAL
	RPA: ROOT PROTECTION AREA
	TREE STEM