TREE CONSULTANTS

ARBORICULTURAL REPORT

& Impact Assessment

to **BS5837:2012** at:

1a Chapel Lane,
Penistone,
South Yorkshire
S36 6DQ

Prepared for:
A+DP
The Old Police Station,
16 Bridge Lane,
Holmfirth,
West Yorkshire
HD9 7AN

Date: *July 2018*

Reference: *AWA2277*

Institute of Chartered Foresters
Registered Consultant

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Contents

1. Introduction

1.1 Instructions and Brief

1.1.1 We are instructed by Tony Stead of A+DP 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 July 2018.

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 The tree positions were plotted on Ordinance Survey map base-layer 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 Ltd.

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 refer to the Tree Constraints Plan at **Appendix 5** and for detail of the impacts of the new development refer to the Tree Impacts Plan at **Appendix 6**.

2. The Site

2.1 Location and Description

2.1.1 The site is located on Chapel Lane in Penistone, a market town and civil parish in the Metropolitan Borough of Barnsley, South Yorkshire.

2.1.2 The site is the garden of a detached residential property. Chapel Lane runs along the site's northern boundary, with Mortimer Road running along its eastern boundary. Neighbouring residential properties are situated to the south and west of the site.

2.1.3 The approximate site area is detailed in the image below (2017 Google Earth):

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 (unless such works are approved by planning permission). 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 14 items of woody vegetation, comprised of 12 individual trees and 2 groups of trees or hedge groups.

3.2.2 Of the surveyed trees: 3 trees are retention category 'B', and the remaining 11 trees and groups are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).

3.2.3 Species diversity at the site is relatively poor. The dominant species is Sycamore with occasional Ash, Birch, Laurel and Cypress. Most of the trees are semi-mature with occasional mature trees.

3.2.4 The site's most significant trees are the Sycamore T2 and Ash T3. Both are large trees in relatively good overall condition and are situated in relatively prominent roadside positions, providing moderate amenity value to the site and the surrounding area. The Ash T3 has some moderate deadwood in its crown and overhangs the footpath and road to the east. It is recommended to undertake crown cleaning works, removing any significant deadwood from the tree's crown, and to lift the tree's eastern crown to around 3m over the footpath and road to the east.

3.2.5 The Cherry Laurel hedge G1 is only of low arboricultural value but provides good screening between the site and the adjacent roads to the north and east. The hedge appears to have been recently reduced in height and pruned from the roadside.

3.2.6 At the site's north eastern corner are several semi to early mature Sycamores (T5 to T12). Trees T6 and T7 appear in relatively poor condition, with considerable dieback in their crowns. Trees T9 to T12 have had previous heavy pruning works undertaken on them, with the majority of the trees' crowns absent. However, the trees would have only been considered of low value regardless of the pruning works, and the pruning has not significantly altered their value.

3.2.7 A dead stem at the site's north eastern corner is recommended for removal regardless of development at the site (as highlighted in red on the plans at Appendix 5 and Appendix 6).

3.2.8 The adjacent Sycamore T14 was only given a cursory inspection due to limited access; measurements were estimated and condition values are indicative only.

3.2.9 The tree Root Protection Area (RPA) is detailed on the Tree Constraints Plan at Appendix 5. 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.

3.2.10 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.

4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to build a new granny annex with associated access and parking. The development proposals have been provided by my client and inform this arboricultural impact assessment and the Tree Impacts Plan at Appendix 6.

4.2 Direct Impacts

4.2.1 From assessing the new development proposals, no trees will require removal to facilitate the development, and the retention and protection of all trees throughout the development is suitable.

4.3 Indirect Impacts

4.3.1 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.

4.3.2 Construction activities are proposed in the vicinity of retained trees.

4.3.3 Existing concrete parking surfaces are over the RPA over the RPA of tree T9 to T12, this should avoid any impact to the roots of these trees provided care is taken during construction.

4.3.4 The proposed new ramped pedestrian access encroaches into the RPA of the Ash T3. The construction of hard surfaces within the RPA can have negative impacts on tree roots. However, if required, the potential negative impacts can be overcome in this instance by employing a 'no-dig' type construction method with a porous final surface.

4.3.5 The design of the new development has considered tree crown positions in relation to the dwelling. Some shade from trees may be beneficial. In particular, deciduous trees give shade in summer but allow access to sunlight in winter. However, the design proposals avoid excessive shading, and give adequate provision for future tree growth.

4.3.6 The buildability of the proposed development has been assessed in terms of access, adequate working space and provision for the storage of materials, including topsoil, in relation to the trees.

4.4 Protection of the Retained Trees

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

4.4.2 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.

5. Signature

I trust this report provides all the required information.

Signed

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

9th July 2018

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Appendices

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 Ricky Nos BSc *(Hons),* FdSc *(Arboriculture), TechArborA.*

Ricky is a trained arborist with 10 years of experience in the private and local authority sectors, taking in all aspects of arboricultural work. He has a Foundation Degree in Arboriculture and a BSc (Honours) in Outdoor Management, and is a technician Member of the Arboricultural Association. His main work consists of tree surveys for development projects, involving tree inspections and the preparation of Tree Reports 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.

Appendix 4: Tree Data

	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*
G1	Cherry Laurel	*Prunus laurocerasus*	Early-mature	3	10+	40	No	0.5	See plan				No visual defects	Single and Multiple stemmed. Old pruning wounds. Stubs	Old pruning wounds. Stubs	Roadside hedge. Previously 'topped'.	Fair	Fair	>40 yrs	Moderate	**C**	No works required
T2	Sycamore	*Acer pseudoplatanus*	Early-mature	11	3	230, 210, 250	No	5	4	4	4	5	No visual defects	Multiple stemmed at base. Vertical. Tight union	Minor deadwood		Good	Good	>40 yrs	Moderate	**B**	No works required
T3	Ash	*Fraxinus excelsior*	Early-mature	16	1	490	No	3	7.5	6	7	5.5	No visual defects	Single stemmed. Vertical	Old pruning wounds. Minor dieback. Moderate deadwood	Overhanging pavement and road to east	Fair	Fair	>40 yrs	Moderate	**B**	Crown clean and crown lift to around 3m over footpath and road
T4	Birch	*Betula pendula*	Semi-mature	11	1	200	No	3	1.5	3.5	2.5	2	Exposed roots	Single stemmed. Vertical. Old pruning wounds. Stubs	Normal		Good	Good	>40 yrs	Moderate	**C**	No works required
T5	Sycamore	*Acer pseudoplatanus*	Early-mature	11	1	270	No	3	2	2.5	3.5	3.5	No visual defects	Single stemmed. Vertical. Old pruning wounds. Bark damage	Minor dieback. Minor deadwood		Fair	Good	20 to 40 yrs	Moderate	**C**	No works required
T6	Sycamore	*Acer pseudoplatanus*	Early-mature	11	1	310	No	4	1	2	3.5	1	No visual defects	Single stemmed. Vertical	25% absent. Small/ sparse. Moderate dieback. Minor deadwood	Previously 'topped' at 5m	Fair	Fair	10 to 20 yrs	Moderate	**C**	No works required

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	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	Sycamore	*Acer pseudoplatanus*	Semi-mature	8	1	200	No	3	2	2.5	3	2.5	No visual defects	Single stemmed. Slight lean	Minor dieback. Minor deadwood		Fair	Good	20 to 40 yrs	Moderate	**C**	No works required
T8	Sycamore	*Acer pseudoplatanus*	Early-mature	11	1	260	No	7	3	3	2.5	2.5	No visual defects	Single stemmed. Vertical	75% absent. Small/ sparse. Moderate dieback. Minor deadwood. Stubs. Old pruning wounds	Previously heavily pruned	Fair	Fair	10 to 20 yrs	Low	**C**	No works required
T9	Sycamore	*Acer pseudoplatanus*	Semi-mature	8	1	180	No	4	0.5	0.5	0.5	0.5	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs	All absent. Old pruning wounds. Stubs	Previously heavily pruned leaving no crown	Poor	Fair	<10 yrs	Low	**C**	No works required
T10	Sycamore	*Acer pseudoplatanus*	Early-mature	8	1	280	No	5	1	2	4	1	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs	50% absent. Small/ sparse. Old pruning wounds. Stubs	Previously heavily pruned	Fair	Fair	20 to 40 yrs	Moderate	**C**	No works required
T11	Sycamore	*Acer pseudoplatanus*	Semi-mature	8	1	130	No	3	0.5	2	2	2	No visual defects	Single stemmed. Vertical	75% absent. Minor dieback. Minor deadwood	Previously heavily pruned	Fair	Fair	10 to 20 yrs	Low	**C**	No works required
T12	Sycamore	*Acer pseudoplatanus*	Semi-mature	7	1	170	No	3	1	0.5	1	1.5	No visual defects	Single stemmed. Vertical. Epicormic growths. Stubs	75% absent. Old pruning wounds. Stubs	Previously heavily pruned	Fair	Fair	10 to 20 yrs	Low	**C**	No works required

	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*
G13	Cypress	*Cupressus sp.*	Early-mature	6	5	320, 230, 140, 150, 290	No	3	See plan				No visual defects	Single and Multiple stemmed. Vertical. Old pruning wounds. Stubs. Bark damage. Tight unions	Small/ sparse. 75% absent. Old pruning wounds. Major dieback. Minor deadwood. Stubs	Row of Cypress stems. Only southernmost stem has any live growth.	Poor	Fair	<10 yrs	Low	**C**	No works required
T14	Sycamore	*Acer pseudoplatanus*	Early-mature	15	2	300, 300	Yes	6	3.5	3.5	4	2	Limited access around base	Twin stemmed at 0.5m. Vertical. Old pruning wounds	Small/ sparse. 25% dead/ absent. Moderate dieback. Minor deadwood	Adjacent tree, no access	Fair	Good	20 to 40 yrs	Moderate	**B**	No works required

Sycamore monolith 2m

T12

T9

T8

T7

T6

Dead stem 7m

T11

T10

T5

T4

T14

T3

G13

G1

T2

NORTH

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Appendix 5: Tree Constraints Plan

1a Chapel Lane, Penistone
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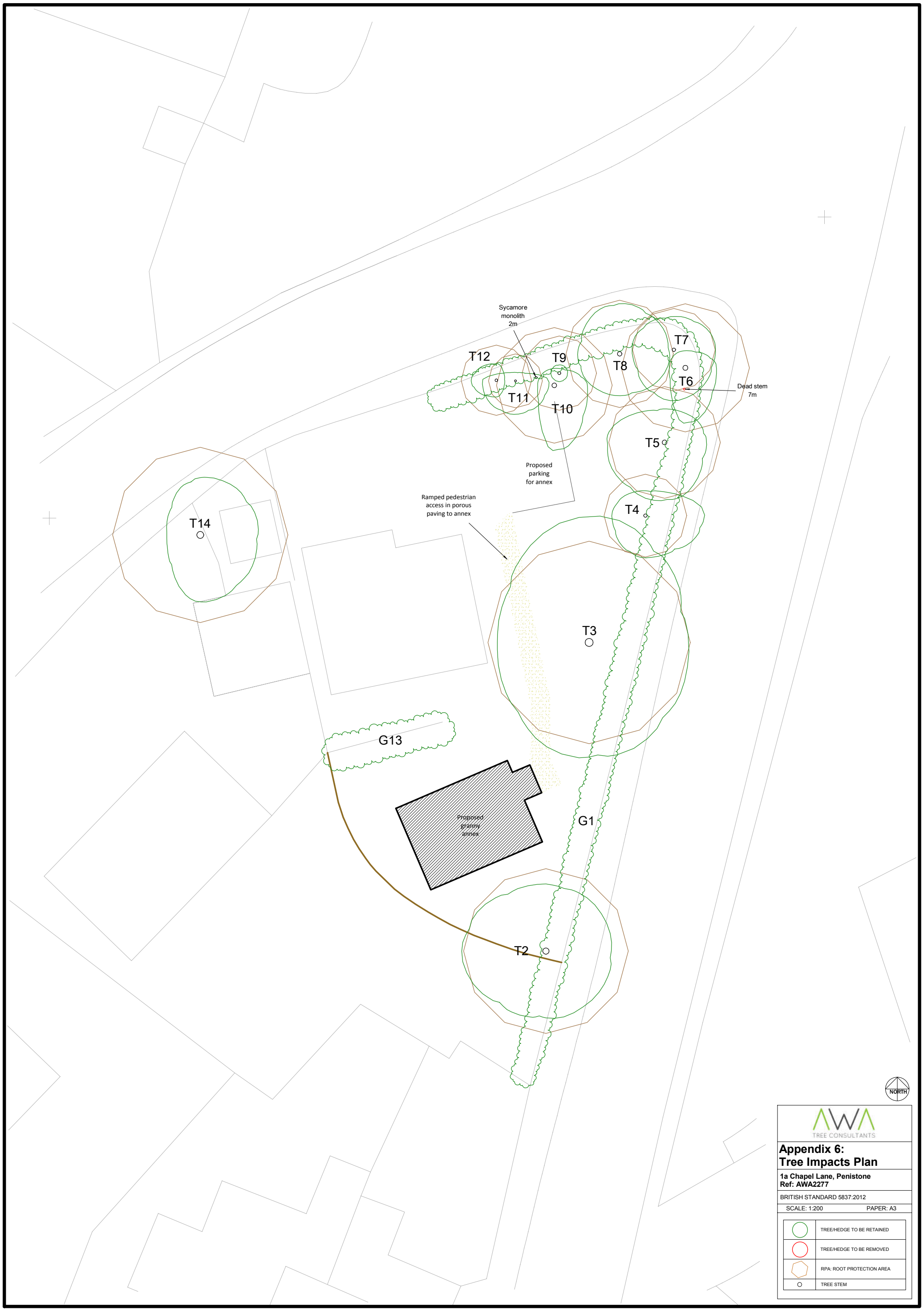
RETENTION CATEGORIES
Definitions of these catagories can be found in Appendix 2 of the report.

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



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Appendix 6: Tree Impacts Plan

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Ref: AWA2277

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SCALE: 1:200 PAPER: A3

	TREE/HEDGE TO BE RETAINED
	TREE/HEDGE TO BE REMOVED
	RPA: ROOT PROTECTION AREA
	TREE STEM