



ARBORICULTURAL REPORT & Impact Assessment to BS5837:2012 at:

***Lee Lane,
Millhouse Green,
Sheffield
S36 9LN***

Prepared for:
White Agus Partnership

Date: *September 2021*

Reference: AWA3917



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1. Introduction

1.1 Instructions and Brief

- 1.1.1 We have been instructed by White Agus Partnership 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 September 2021.
- 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.
- 1.2.6 The tree survey and data collection were carried out by Mr Tom Readman FdSc Arboriculture, TechArborA, VALID Tree Risk-Benefit Validator, Arboriculturist at AWA Tree Consultants Ltd.
- 1.2.7 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 surveyed area is located in Millhouse Green, a village to the west of Penistone in South Yorkshire.
- 2.1.2 The surveyed area comprised the garden of residential property. The existing dwelling, access and garage is situated in the eastern section of the surveyed area, with the lawn garden comprising the western section. To the north and east are neighbouring residential properties, and to the south and west are adjacent grass fields.
- 2.1.3 The approximate area of the survey is highlighted in the image below (Google Earth, 2021):



3. The Trees

3.1 Legal

- 3.1.1 An online search has been carried out with Barnsley Metropolitan Borough Council on 07/09/21 to ascertain whether any trees at the site are located within a Conservation area or are protected by a Tree Preservation Order (TPO). As of this date no trees within the site are legally protected.
- 3.1.2 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a further check should be made with the Local Planning Authority to confirm if any trees are covered by a Tree Preservation Order or are within a Conservation Area. If either applies, then statutory permission is required before any works can take place. Statutory permission is not required for the removal of deadwood.
- 3.1.3 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.
- 3.1.4 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 12 items of woody vegetation, comprised of 11 individual trees and 1 hedge.
- 3.2.2 All surveyed trees are retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).
- 3.2.3 At the southern boundary of the garden are Hawthorn T1, Cherry T2, Alder T3 and T5 to T9, and Beech T4. These trees are situated on, or at the top of, a slight banking, and due to their exposed location a number of the trees are leaning with the prevailing wind. T3, T5, T6 and T7 appear to have been reduced in the past, with upper crowns typical of previously topped trees. T6 and T8 were previously twin-stemmed trees, however stems have previously been removed resulting in old pruning wounds with signs of decay at the base, which may limit long-term prospects. The trees at the southern boundary typically have low individual value, but collectively provide reasonable screening for the highway to the south.

- 3.2.4 In the south-west corner of the garden is Alder T10, which has established among dense shrubs. T10 has negligible value in the wider landscape, with no significant contribution to boundary screening.
- 3.2.5 In the centre of the garden, close to the existing dwelling, is Holly cultivar T11. T11 is a small garden tree that has been managed as a small dome, within a shrub bed. It is effectively screened in the wider environment by existing topography and as such has limited arboricultural value.
- 3.2.6 At the northern boundary is Cypress hedge G12. G12 is a dense, managed hedge that provides good boundary screening.
- 3.2.7 There are a number of smaller trees and shrubs throughout garden that fall outside the scope of a BS5837:2012 survey.
- 3.2.8 The central garden area is managed as a lawn, and as such is free from significant constraints on development.
- 3.2.9 The tree Root Protection Area (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.
- 3.2.10 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of these low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

3.3 Photographs



Photo 1: The site, as viewed from the west

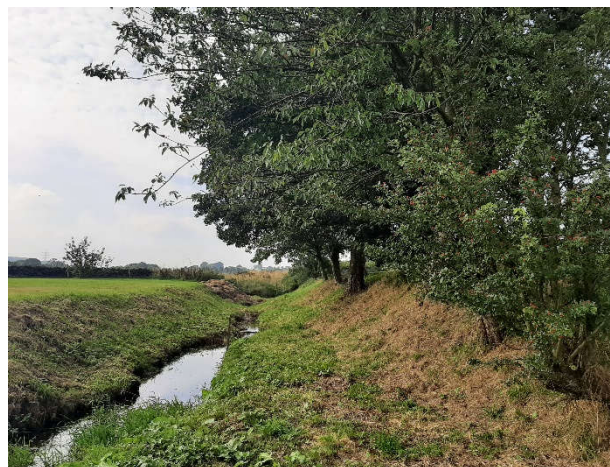


Photo 2: Trees situated on the banking at the southern boundary



Photo 3: Occasional trees at the southern boundary with pruning wounds at the base, with decay



Photo 4: Trees at the southern boundary provide screening from the highway to the south



Photo 5: Alder T10, situated in boundary shrubs



Photo 6: Cypress hedge G12, providing screening at the northern boundary

4. Arboricultural Impact Assessment

4.1 Proposed New Development

- 4.1.1 It is proposed to build a new residential dwelling with and associated access, landscaping and facilities. 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, the removal of T11 will be required, as it is situated in the footprint of the new dwelling.
- 4.2.2 T11 is retention category 'C'. T11 is a small, managed tree that is effectively screened in the wider landscaping by existing topography. The removal of T11 will have a negligible negative arboricultural impact.

4.3 Indirect Impacts

- 4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Plans at Appendix 5 and 6, 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. As such, no significant negative indirect impacts have been identified.

4.4 Suitable Mitigation

- 4.4.1 The development of the site provides an excellent opportunity to undertake new tree planting throughout the site as part of a soft landscaping scheme. Suitable new tree planting has the potential to mitigate for the removal of T11, with the potential to improve tree cover in the short term.

4.5 Protection of the Retained Trees

- 4.5.1 The retained trees may require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 4.5.2 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.

7th September 2021

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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 6: Tree Impacts 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, PTI (Lantra)

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 joined AWA in 2016, after previously working 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.

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

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 Tom Readman FdSc Arboriculture, TechArborA, Valid Tree Risk-Benefit Validator

Tom joined AWA from his previous role as a tree risk surveyor with Harrogate Borough Council, where he undertook tree risk surveys at a range of sites and prescribed suitable works. Tom also has extensive previous experience as a climbing arborist. Tom achieved a Distinction in the Foundation Degree in Arboriculture, while working at AWA, and has previously achieved Distinction Star, and was recognised as the student of the year, in the Extended Diploma in Forestry and Arboriculture. Tom's work focuses on tree risk surveys and accurate tree data collection for development projects to BS 5837:2012

Mr James Godfrey BA (Hons), Cert Arb L3, Level 4 Forestry and Arboriculture, TechArborA

James has extensive arboricultural experience working as a team leader in both the public and private sector. Achieving a Distinction Star in the Extended Diploma in Forestry and Arboriculture allowed James to utilise this knowledge in order to inform the maintenance and wellbeing of trees across the UK over the course of his career. During his time at Darlington Borough Council, James was responsible for on-site assessment and advising of remedial works for council owned trees. Currently, James is completing a Foundation Degree in Arboriculture and Tree Management, while working at AWA.

Mr David Miller BA (Hons), PGCE education, Dip Arboriculture Level 4

David joined AWA after having managed his own tree care team for 8 years and gained a wealth of experience in the tree care industry. Prior to this David spent 10 years working in secondary mainstream and special education. David has also travelled worldwide, mainly trekking and running. His main work at AWA consists of tree surveys for development projects and preparing Tree Protection Schemes 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 in 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.

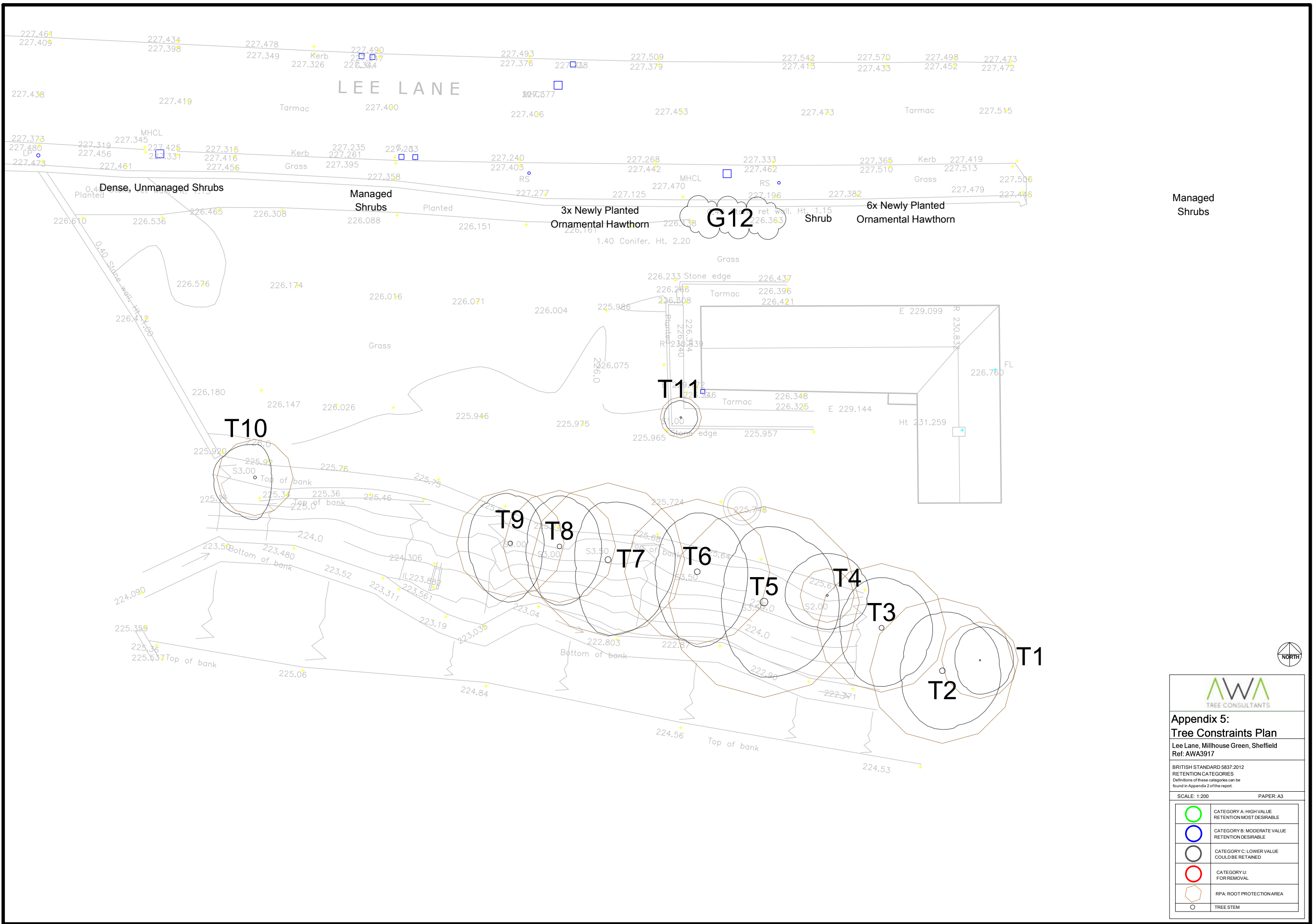
C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

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 ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T1	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	3.5	7	70 avg	Yes	1	2	2	2	1.5	Soil erosion, Exposed roots	Single stemmed, Significant lean south at base, Becoming multiple stemmed and vertical at 0.5m, Old pruning wounds	Tight unions, Epicormic growths, Stubs, Minor decay	Situated on banking. Shrub form	Fair	Fair	20 to 40 yrs	Low	C	No works required
T2	Prunus	<i>Prunus avium</i>	Early-mature	10	1	350	No	2.5	3.5	3.5	3.5	2.5	Soil erosion, Exposed roots	Single stemmed with a slight lean south at base, becoming vertical and twin stemmed at 2m, Pruning wounds from crown lifting	Slightly unbalanced	Situated on banking. Tight union with partially included bark, with reasonable reaction growth	Good	Fair	20 to 40 yrs	Low	C	No works required
T3	Alder	<i>Alnus glutinosa</i>	Early-mature	9	1	310	No	2.5	3	3	3.5	2.5	Soil erosion, Exposed roots	Single stemmed, Slight lean east, Epicormic growths, Pruning wounds from crown lifting, Minor decay	Slightly unbalanced, Previously pollarded	Slight 'bottle-butt' form and epicormic suggests some internal decay, but not significant concern due to high overall vitality	Good	Fair	20 to 40 yrs	Low	C	No works required
T4	Beech	<i>Fagus sylvatica 'Purpurea'</i>	Young	4	1	130	No	0.5	2.5	2.5	2	2.5	Soil erosion, Exposed roots	Single stemmed, Vertical	Normal	Situated on banking	Good	Good	>40 yrs	Low	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T5	Alder	<i>Alnus glutinosa</i>	Early-mature	9.5	1	460	No	2.5	4.5	4.5	4.5	2.5	Soil erosion, Exposed roots	Single stemmed, Slight lean east, Epicormic growths	Minor deadwood west aspect, Slightly unbalanced, Previously pollarded	Situated on banking	Good	Good	20 to 40 yrs	Moderate	C	No works required
T6	Alder	<i>Alnus incana</i>	Early-mature	8.5	1	350	No	2.5	3.5	3	4.5	2.5	Soil erosion, Exposed roots	Single stemmed, Slight lean east, Epicormic growths, Minor cavity, Minor decay, Old pruning wounds	Slightly unbalanced, Previously pollarded	Situated top of banking. Previously twin stemmed with one stem removed at .5m, now decayed	Fair	Fair	10 to 20 yrs	Low	C	No works required
T7	Alder	<i>Alnus incana</i>	Early-mature	9.5	1	370	No	2	3.5	4	4.5	2	Soil erosion, Exposed roots	Single stemmed, Slight lean east, Pruning wounds from crown lifting	Previously pollarded, Stubs	Situated on banking	Good	Fair	20 to 40 yrs	Moderate	C	No works required
T8	Alder	<i>Alnus glutinosa</i>	Semi-mature	8	1	270	No	2	3	2.5	3.5	2	Soil erosion, Exposed roots	Single stemmed, Vertical, Epicormic growths, Old pruning wounds at base, Minor decay	Normal	Situated on banking. Previously twin stemmed with one stem removed at .5m, now decayed	Good	Fair	20 to 40 yrs	Low	C	No works required
T9	Alder	<i>Alnus glutinosa</i>	Semi-mature	8	1	260	No	2	3	2	3.5	2.5	Soil erosion, Exposed roots	Single stemmed, Slight lean south, Tight union	Normal	Situated on banking	Good	Fair	20 to 40 yrs	Low	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T10	Alder	<i>Alnus glutinosa</i>	Semi-mature	5	2	130, 130	No	1.5	2	1	2.5	2.5	Soil erosion, Exposed roots	Twin stemmed, Vertical, Tight union, Partially included bark, Stubs east aspect	Slightly unbalanced	Situated on banking. Grass clippings piled at base	Fair	Fair	20 to 40 yrs	Low	C	No works required
T11	Holly	<i>Ilex aquifolium</i>	Semi-mature	2	2	70, 70	Yes	0.5	1	1	1	1	No visual defects	Single stemmed at base, Twin stemmed at 0.5m, Vertical, Old pruning wounds	Normal	Small, managed cultivar	Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
G12	Leyland Cypress	^X <i>Cupressocyparis leylandii</i>	Young	3.5	10	100 avg	Yes	1	See Plan				Dense, managed hedge. Tight unions typical of managed hedges				Good	Fair	20 to 40 yrs	Low	C	No works required





Appendix 5:
Tree Constraints Plan
Lee Lane, Millhouse Green, Sheffield
Ref: AWA3917

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories 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

