TREE CONSULTANTS

ARBORICULTURAL REPORT

& Impact Assessment

to **BS5837:2012** at:

Wilkinson Road,
Elsecar,
Barnsley,
South Yorkshire
S74 8JS

Prepared for:
White Agus Partnership
Office One,
34 Victoria Road,
Barnsley,
South Yorkshire
S70 2BU

Date: *February 2019*

Reference: *AWA2549*

Institute of Chartered Foresters
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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 Robert Agus of 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 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 Patrick Rowntree, Cert Arb L3, TechArborA, 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 Wilkinson Road in Elsecar, a village in the Metropolitan Borough of Barnsley, South Yorkshire.

2.1.2 The site comprises a plot of grassland situated between residential properties, with a footpath running through the centre. Residential properties are situated to the north, east and west of the site, with Wilkinson Road bordering the site's southern 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 (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 4 items of woody vegetation, comprised of 2 individual trees and 2 groups of trees or hedges.

3.2.2 All 4 of the trees and groups are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).

3.2.3 The Maple T1 is situated at the site's south eastern corner. The tree is in a relatively prominent roadside position but has been poorly pruned from an adjacent street light which may limit its long term value; the tree will likely require frequent pruning works to clear the street light in future.

3.2.4 The Robinia T2 is the largest tree on site and provides good amenity value to the surrounding area. There is a moderate sized cavity with minor decay to the northern side of the tree's main stem, but the tree appears to have put on significant reaction growth to occlude the cavity.

3.2.5 Cypress hedges G3 and G4 are situated in neighbouring gardens to the north and west of the site. The hedges provide good screening of the site from the neighbouring properties but are only of low arboricultural value. The hedges were only given cursory inspections due to their adjacent inaccessible locations.

3.2.6 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.

3.2.7 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.

3.2.8 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.

4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to build 2 new residential dwellings with associated 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, 1 tree will require removal as its retention and protection throughout the development is not suitable.

4.2.2 The tree that requires removal is the Maple T1. Its removal will have a moderate loss of amenity in the short term, but it can be easily replaced with new landscape plantings at the site. The tree could also be considered to be situated unsuitably close to the adjacent street light.

4.2.3 The Cypress hedge G3 will require minor pruning works to facilitate a proposed new footpath. Much of the crown of the hedge is limited by the boundary fence to a height of 2m, but the southern end of the group has developed beyond the fence and should be pruned back to the fence line. It is likely the hedge will readily tolerate these pruning works and the limited amenity value it currently provides will not be significantly affected.

4.2.4 The proximity of T2 to the rear of the proposed development warrants some pruning works. To avoid future nuisance issues, a crown lift of the lower north-eastern limbs to a height of approximately 4.5m and removal of all significant deadwood is recommended.

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 The proposed new footpath is situated within the RPA of the adjacent hedge G3. The construction of hard surfaces 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.

4.3.3 The design of the new development has considered tree crown positions in relation to the new dwellings. 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 and recommended works avoid excessive shading, and give adequate provision for future tree growth.

4.3.4 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 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. As such, suitable new tree planting has the potential to mitigate for the required tree removals and, in the longer term, has the potential to improve the sites tree cover.

4.5 Protection of the Retained Trees

4.5.1 The retained trees will 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 February 2019

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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.*

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.

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*
T1	Maple	*Acer platanoides* 'Crimson King'	Semi-mature	10	1	370	No	3.5	3.5	4	3	2.5	Mower damage, Damage to buttress roots	Single stemmed, Vertical, Bark damage, Old pruning wounds, Epicormic growth, Stubs	Old pruning wounds, Minor deadwood	Adjacent to street lamp, with potential to cause future damage. Significant mower damage to large exposed northern root.	Fair	Fair	>40 yrs	Moderate	**C**	Removal required to facilitate development
T2	Robinia	*Robinia pseudoacacia*	Semi-mature	12	1	510	No	3	4.5	4.5	4.5	5	No visual defects	Single stemmed, Vertical, Old pruning wounds, Stubs, Moderate cavity, Minor decay	Old pruning wounds, Minor deadwood	Historic moderate cavity on northern side of stem with minor decay from 0.5m to 1.m - tree has managed well.	Fair	Fair	>40 yrs	Moderate	**C**	Crown-lift and dead wood
G3	Cypress	*Cupressus sp.*	Semi-mature	4.5	10+	150	Yes	0.5	See plan				Limited access, No visual defects	Single stemmed, Vertical, Tight unions, Old pruning wounds, Stubs	Old pruning wounds, Minor dieback	Line of single stemmed trees, historically topped at 4m. Situated in adjacent land.	Fair	Fair	>40 yrs	Low	**C**	Prune back as required to facilitate footpath
G4	Cypress	*Cupressus sp.*	Semi-mature	4.5	10+	100	Yes	0.5	See plan				Limited access, No visual defects	Single stemmed, Vertical, Tight unions, Old pruning wounds, Stubs	Old pruning wounds, Moderate dieback	Boundary hedge. Managed back to fenceline to a height of 2m. Situated in adjacent land.	Fair	Fair	>40 yrs	Low	**C**	No works required

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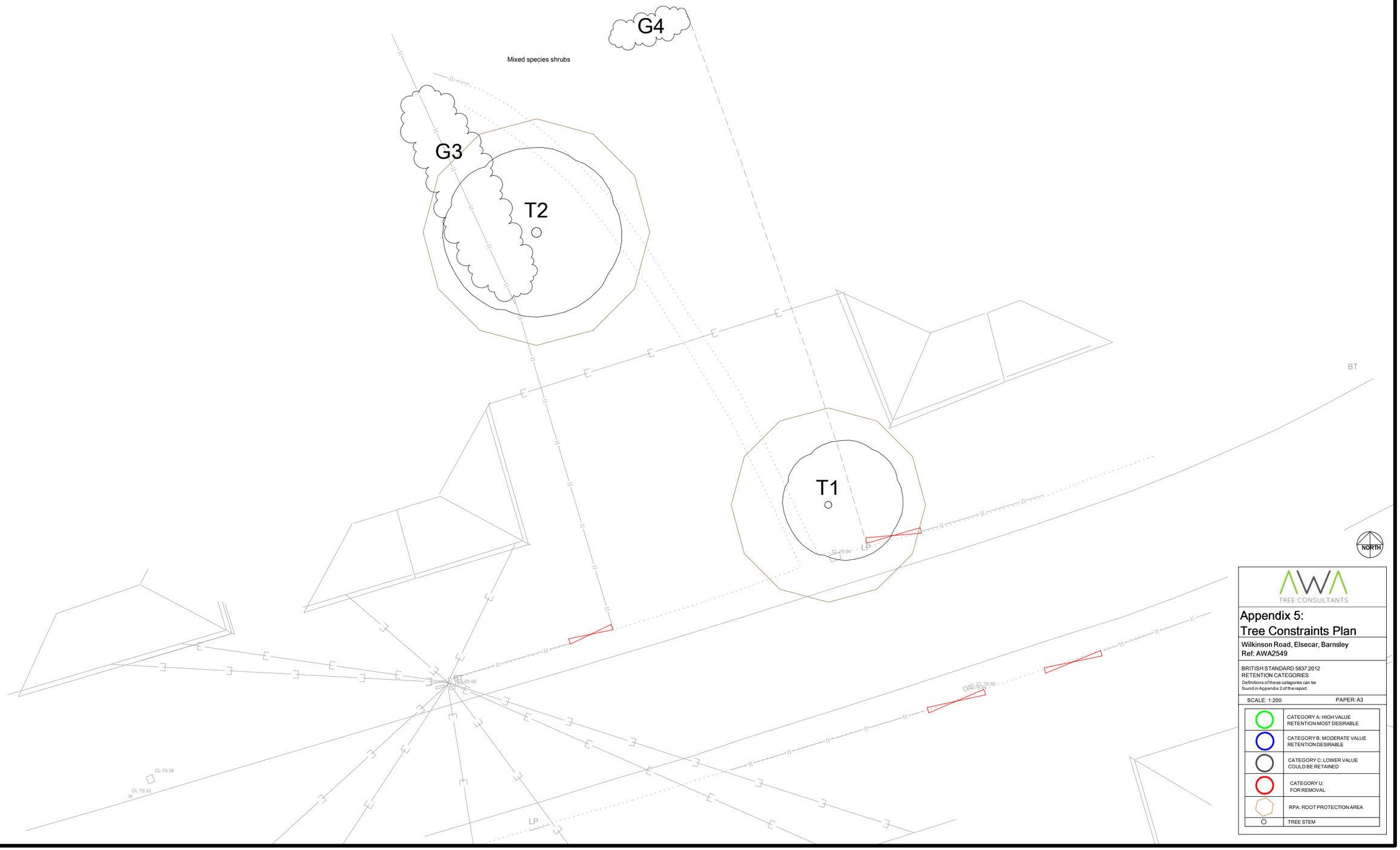

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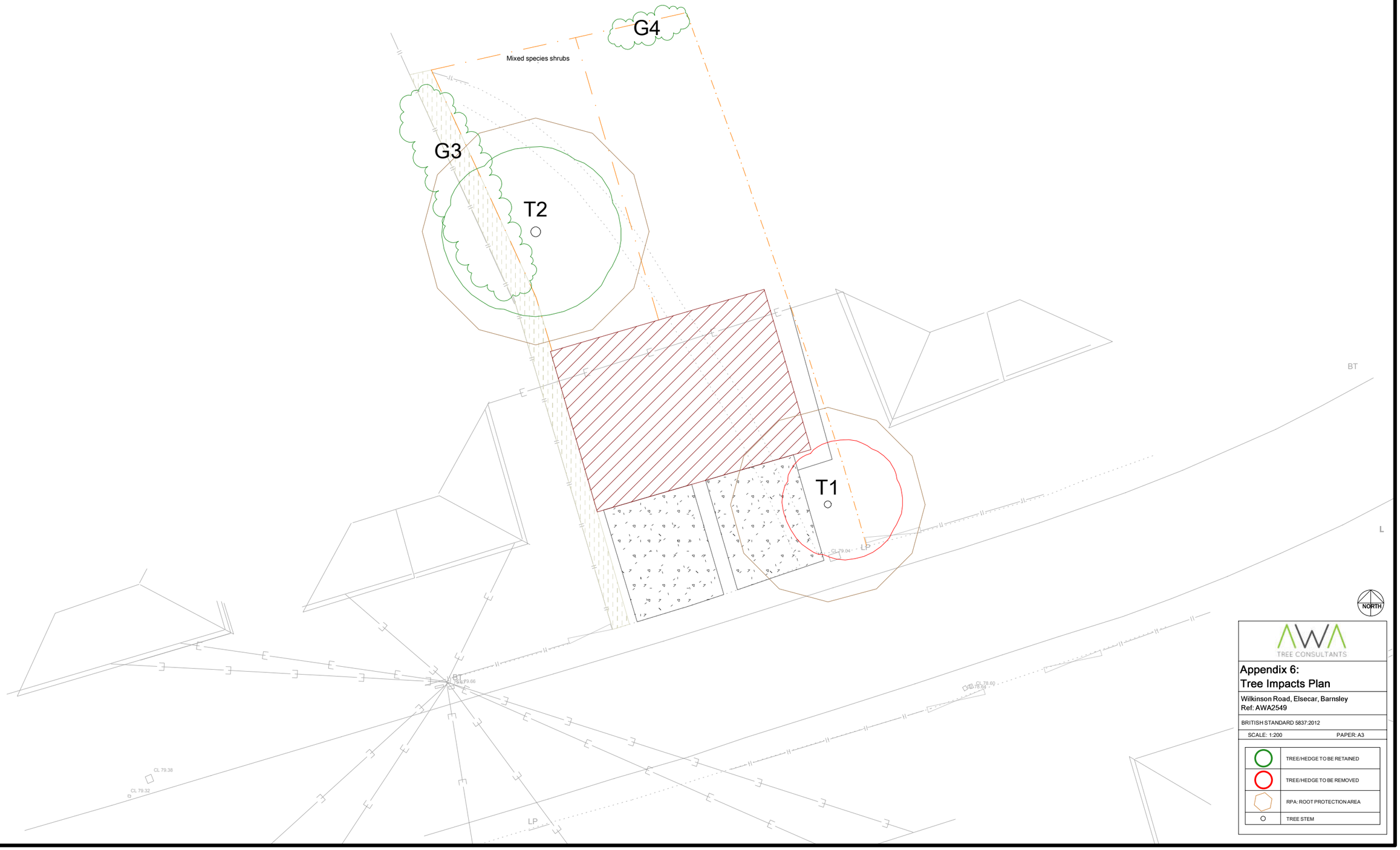
Appendix 5:
Tree Constraints Plan

Wilkinson Road, Elsecar, Barnsley
Ref: AWA2549

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



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Appendix 6: Tree Impacts Plan

Wilkinson Road, Elsecar, Barnsley
Ref: AWA2549

BRITISH STANDARD 5837:2012

SCALE: 1:200 PAPER: A3

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