



ARBORICULTURAL REPORT & Impact Assessment to BS5837:2012 at:

***Bloemfontein Street,
Cudworth,
Barnsley,
South Yorkshire
S72 8UN***

Prepared for:
WhiteAgus Partnership

Date: *June 2021*

Reference: AWA3795



Contents

1. Introduction.....	3
1.1 Instructions and Brief	3
1.2 Survey Details	3
2. The Site	4
2.1 Location and Description	4
3. The Trees	5
3.1 Legal.....	5
3.2 Tree Survey Results.....	5
3.3 Photographs	7
4. Arboricultural Impact Assessment.....	8
4.1 Proposed New Development	8
4.2 Direct Impacts.....	8
4.3 Suitable Mitigation.....	8
5. Signature.....	9
Appendix 1: Authors Qualifications & Experience	11
Appendix 2: Survey Methodology and Limitations of Report	12
Appendix 3: Explanation of Tree Descriptions	13
Appendix 4: Tree Data	14
Appendix 5: Tree Constraints Plan.....	15
Appendix 6: Tree Impacts Plan	16

1. Introduction

1.1 Instructions and Brief

- 1.1.1 We have been instructed by WhiteAgus 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 June 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. The tree survey and data collection were carried out by Mr Tom Readman Cert Arb L3, Level 4 Forestry and Arboriculture, 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 in Cudworth, an urban village in the Barnsley Metropolitan District of South Yorkshire.
- 2.1.2 The surveyed area is comprised of a parking area and garages, with areas of rough grass and scrub. To the north and east are allotments, to the south are residential properties, and to the west is a small yard.
- 2.1.3 The approximate area of the survey is highlighted in the image below (Google Earth, 2020):



3. The Trees

3.1 Legal

- 3.1.1 An online search has been carried out with Barnsley Metropolitan District Council on 16/06/21 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 11 items of woody vegetation, comprised of 8 individual trees and 3 groups of trees.
- 3.2.2 All surveyed trees and groups are retention 'C' (explanatory details regarding the retention categories are included at Appendix 3).
- 3.2.3 Tree cover at the site is comprised of small, self-set trees. Trees are mainly comprised of Ash, with occasional Sycamore, one Willow and one Elder. All surveyed trees are young or semi-mature.
- 3.2.4 Of the surveyed trees, the trees and groups at the northern boundary – T1 to T4, G5, T6 and G7 – have minor value as boundary screening for the adjacent allotments. The remaining trees are situated in positions where their screening and wider landscape value is negligible.
- 3.2.5 T1 and trees within G11 have been negatively impacted by nearby fires, causing some dieback. Repeated fires on the site, close to trees, are likely to impact the long-term prospects of trees.

- 3.2.6 A number of Ash trees surveyed had symptoms consistent with 'Chalara' or Ash dieback disease. Once a tree is infected, the disease is usually fatal, either directly or indirectly. While the identified Ash trees may continue to provide landscape and wildlife benefits for some time, their long-term prospects are likely to be limited as a result of Ash dieback.
- 3.2.7 Some trees were inaccessible (as detailed in Appendix 4). In such cases measurements were estimated and the condition values are indicative only.
- 3.2.8 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.
- 3.2.9 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: T1 to T4, at the northern boundary



Photo 3: Fires close to T4, which have caused minor dieback in the crown



Photo 4: T8 and T9, at the eastern boundary



Photo 5: T10 and G11, in the centre of the site



Photo 6: Fire damage to trees in G11, circled

4. Arboricultural Impact Assessment

4.1 Proposed New Development

- 4.1.1 It is proposed to build a new residential development with associated access, landscaping and facilities.
- 4.1.2 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 all trees and groups will be required, as they are situated in the footprint of the development, or their retention and protection throughout the development is not suitable.
- 4.2.2 The trees to be removed are low value retention category 'C'.
- 4.2.3 T1, T2, T3, T4, T6, G7 and trees within G11 are Ash trees, and their long-term prospects will likely be limited by Ash dieback. The remaining trees are smaller, self-set trees with negligible value in the wider landscape. T9, T10 and trees within G11 all have defects, including tight unions and significant dieback from fire damage, that will limit longer-term prospects.
- 4.2.4 Due to the limited prospects and low value of the trees to be removed the removals will have only a minor negative arboricultural impact.

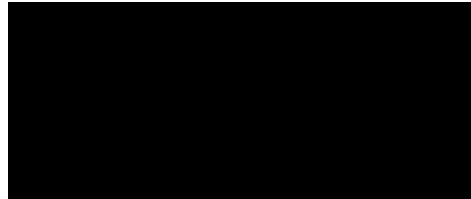
4.3 Suitable Mitigation

- 4.3.1 The development of the site provides an excellent opportunity to undertake new tree planting throughout the site as part of a soft landscaping scheme.
- 4.3.2 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.

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.

16th June 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 Cert Arb L3, Level 4 Forestry and Arboriculture, 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 at Distinction Star, and was recognised as the student of the year, in the Extended Diploma in Forestry and Arboriculture and is now completing a Foundation Degree in Arboriculture, while working at AWA. 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.

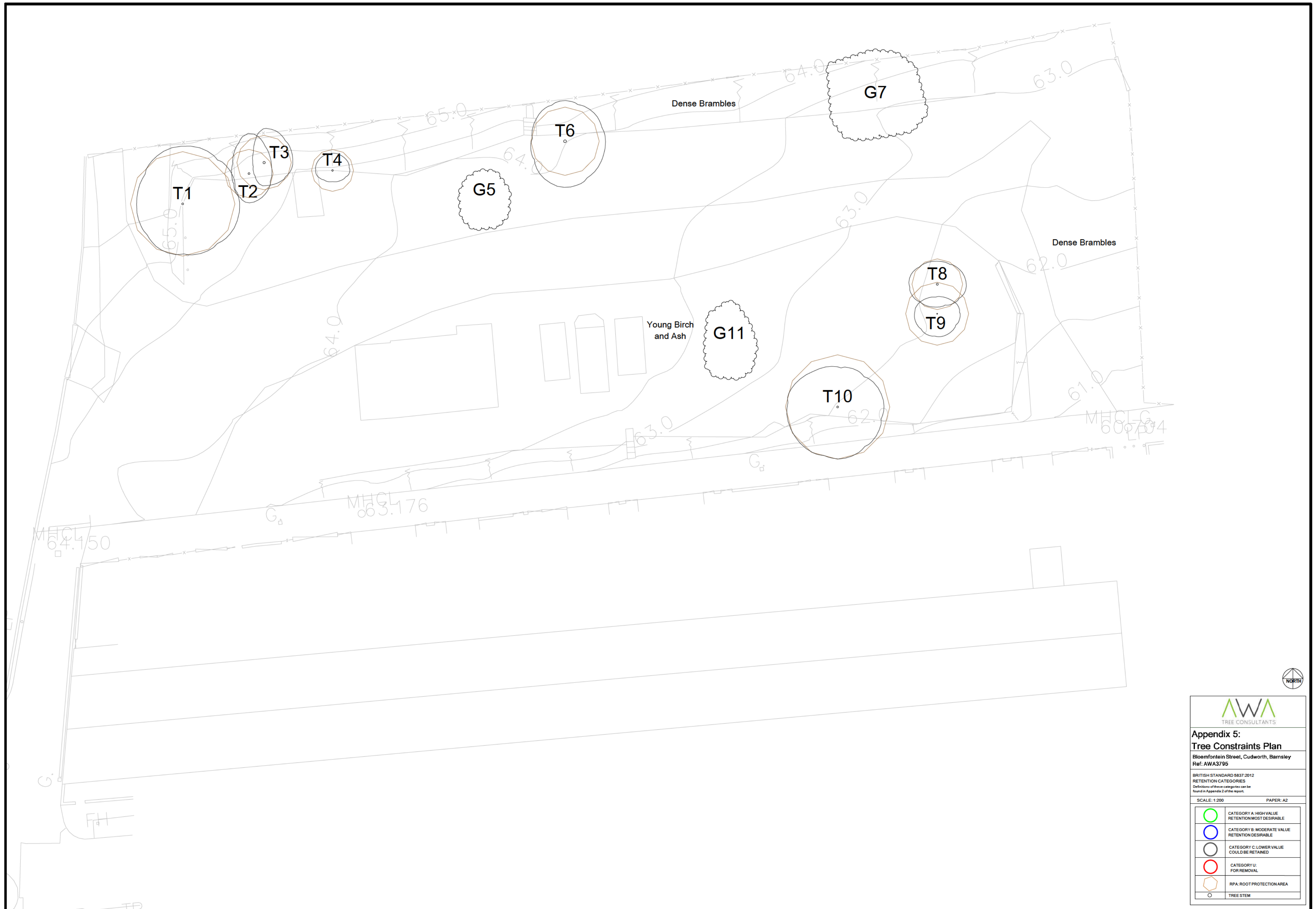
C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

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	Ash	<i>Fraxinus excelsior</i>	Semi-mature	10	6	150 avg	Yes	1.5	5	5	4.5	4	No visual defects	Multiple stemmed at base, Vertical and leaning stems, Tight union, Partially included bark	Minor dieback, Minor deadwood	Fire damaged crown at south-east aspect. Discolouration consistent with Ash dieback on stub	Fair	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
T2	Ash	<i>Fraxinus excelsior</i>	Semi-mature	8	1	170	No	2.5	3.5	2	2.5	1.5	No visual defects	Single stemmed, Vertical, at base, Multiple stemmed at 2m, Tight union, Partially included bark	Slightly unbalanced		Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
T3	Ash	<i>Fraxinus excelsior</i>	Semi-mature	8	2	140, 130	No	3	3	2.5	2	1	Soil erosion, Exposed roots	Twin stemmed at base	Slightly unbalanced, Minor deadwood	Situated on slight banking. Waste at base	Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
T4	Ash	<i>Fraxinus excelsior</i>	Young	5	3	100, 90, 60	No	0.5	1.5	1.5	1	1.5	Limited access around base	Multiple stemmed at base, Slight lean, Epicormic growths	Normal	Epicormic at base prevented detailed inspection of roots	Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
G5	Willow, Ash	<i>Salix caprea</i>	Semi-mature	3.5	10+	50 avg	Yes	0.5	See Plan				Semi-mature Willow shrub with occasional self-set young Ash. Minor dieback to Willow at south-west aspect, with slight browning at edge of leaves. Vertical and leaning stems, multiple tight unions with partially included bark				Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development

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
T6	Ash	<i>Fraxinus excelsior</i>	Semi-mature	6	1	240	No	2	3.5	3.5	4	3	Limited access around base	Single stemmed, Vertical, at base, Twin stemmed at 3m, Tight union	Normal	High understory prevented detailed inspection	Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
G7	Ash	<i>Fraxinus excelsior</i>	Semi-mature	5.5	10+	100 avg	Yes	1	See Plan				Group of young to semi-mature Ash. Four individual trees, some with multiple stems. High understory prevented detailed inspection of some stems. Occasional minor Ash dieback				Fair	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
T8	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	7	2	140, 110	No	1	2	2.5	2	2.5	Limited access around base, Suckering growth	Single stemmed at base, Twin stemmed at 1m, Vertical, Tight union, Partially included bark	Normal	High understory prevented detailed inspection	Good	Fair	>40 yrs	Low	C	Removal required to facilitate development
T9	Elder	<i>Sambucus nigra</i>	Semi-mature	3.5	10+	70 avg	Yes	0.5	1.5	2	2	2	Limited access around base	Multiple stemmed at base, Vertical and leaning stems, Tight union	Minor deadwood		Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development
T10	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	9	6	150 avg	Yes	2	3.5	4	4.5	4.5	No visual defects	Multiple stemmed at base, Vertical and leaning stems, Tight union, Partially included bark	Bark damage on lower branches consistent with browsing	Occasional pruning wounds from crown lifting. Tight union in centre of stems	Good	Fair	20 to 40 yrs	Low	C	Removal required to facilitate development

	Tree Species			Measurements				Crown (m)				Tree Condition							Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
G11	Ash, Sycamore	Fraxinus sp., Acer sp.	Semi-mature	8.5	10+	100 avg	Yes	2	See Plan				Bramble understory at base of trees. Fire damage at eastern eastern aspect resulting in dieback, with northernmost Ash stem with major dieback. Some tight unions with partially included bark				Fair	Fair	10 to 20 yrs	Low	C	Removal required to facilitate development



AWA
TREE CONSULTANTS

Appendix 5:
Tree Constraints Plan
Bloemfontein Street, Cudworth, Barnsley
Ref: AWA3795

BRITISH STANDARD BS37:2012
RETENTION CATEGORIES
Definitions of these categories can be found in Appendix 2 of the report.

SCALE: 1:200 PAPER: A2

Green circle	CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE
Blue circle	CATEGORY B: MODERATE VALUE RETENTION DESIRABLE
Grey circle	CATEGORY C: LOWER VALUE COULD BE RETAINED
Red circle	CATEGORY U: FOR REMOVAL
Orange outline	RPA: ROOT PROTECTION AREA
Dot	TREE STEM

