



ARBORICULTURAL REPORT

& Impact Assessment

To **BS5837:2012** at:

***12 Coltfield,
Birdwell,
Barnsley,
S70 5RH***

Prepared for:
White Angus Partnership
*8 Morston Business Park,
Whaley Road,
Barugh Green,
Barnsley,
S75 1HQ*

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Reference: *AWA1721*



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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 October 2016.
- 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 author’s 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 a residential area in Birdwell, a village in the metropolitan borough of Barnsley, South Yorkshire.
- 2.1.2 The site is currently a residential property and garden. There are further residential properties to the south and west, and a road runs the length of the site's northern boundary.

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 7 items of woody vegetation, comprised of 4 individual trees and 3 groups of trees or shrub/hedge groups.
- 3.2.2 All of the surveyed trees and shrubs are lower value retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).
- 3.2.3 The tree cover within the site consists mainly of hedges and linear tree groups situated on the site's boundaries. The central area of the site does not contain any arboricultural significance. Collectively, the trees provide some limited landscape value and act as a visual screen between the properties; however, individually all of the trees and shrubs are lower value. Species diversity at the site is relatively poor, comprising semi-mature Sycamore trees and hedge shrubs comprised of Hawthorn, Elder and Privet.
- 3.2.4 The boundary Hawthorn shrubs G1 have been heavily cut back in the past and are managed at around 2.5m height. The Hawthorn shrubs G4 appear to have been a previously managed hedge, but have not been cut for many years, and have now reverted into a line of shrubby trees.
- 3.2.5 The sites most significant trees are two boundary Sycamore (T2 and T3). The trees had no major visible defects and provide some limited arboricultural value; however, they are both lower value retention category 'C'.
- 3.2.6 An early-mature Elder shrub/tree T6, is growing against the wall of an adjacent building. The tree stem is pushing against the building wall and in the future it may cause structural damage, or else the tree/shrub will have limited prospects due to its location. As such, while not urgent, it is advisable to remove the shrub/tree within the next 5 to 10 years regardless of any development.
- 3.2.7 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, is 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.
- 3.2.8 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 a new residential property with associated parking 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 Privet hedging to the front of the property (G7) will require removal as its retention and protection throughout the development is not suitable. This small hedge removal will have no arboricultural impact, as it is a small low value hedge feature.
- 4.2.2 The boundary Hawthorn hedge group G4 will require pruning management to implement the new design proposals. The group will require the overhanging branches cutting back by around 1m, to suitable points near to the boundary. It would also be suitable to reduce the height of the hedge, to around 4m, to create a more formal hedge with dense structure, although this is not essential to implement the new development.
- 4.2.3 In addition, it is advised to crown lift the overhanging branches of T2, T3 and T6, to avoid conflict with the new development. It is likely the trees will tolerate this work readily and that the visual amenity provided by the trees will not be diminished.

4.3 Indirect Impacts

- 4.3.1 Potentially damaging activities are proposed in the vicinity of retained trees T2 and T3. The proposed new building encroaches into the edge of the RPA. However, the encroachment is very minor and the trees are in good vigour, as such, the retained trees should remain largely unaffected by the works, provided care is taken during construction.

4.4 Protection of the Retained Trees

- 4.4.1 The retained trees will require protection by fencing in accordance with BS 5837: 2012, during the development phase. If required an associated Arboricultural Method Statement, detailing protective fencing specifications can be provided.

5. Signature

I trust this report provides all the required information.

Signed



.....

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

11th November 2016

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Chartered Foresters
Registered Consultant

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: Arboricultural Impacts Plan

Appendix 1: Authors Qualifications & Experience

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

Experience

I have worked within the tree care profession for 20 years. I am a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters. My work ranges from individual expert tree inspections to managing trees on major multimillion pound housing and park developments and highway and infrastructure projects. My work often involves trees with Preservation Orders, insurance claims, subsidence claims and litigation. In 2010 I obtained an MSc in Arboriculture and Urban Forestry (with distinction), also gaining the top student award, and have had articles published in industry magazines and have original research published by the UK Forestry Commission.

Membership of Professional Bodies

Professional Member and Registered Consultant of the Institute of Chartered Foresters
Associate of the Chartered Institute of Ecology and Environmental Management
Associate of the Arboricultural Association

Qualifications

MSc Arboriculture and Urban Forestry (Distinction)
BSc (Hons) Environmental Conservation
National Diploma in Arboriculture

Mr Guy Baxter *FdSc (Arb). ND Arb. TechArborA*

Experience

I have worked within the tree care profession for 7 years and joined AWA Tree Consultants in April 2015. My work focuses on undertaking BS5837:2012 tree surveys for development projects; this involves tree inspections, the preparation of Tree Reports, Arboricultural Impact Assessments and Tree Protection Schemes to BS 5837:2012. While working full time, I am currently in my final stages of a part-time BSc Hons Degree in Arboriculture and Urban Forestry at the University of Central Lancashire, and am working towards becoming a Chartered Arboriculturist with the Institute of Chartered Foresters.

Membership of Professional Bodies

Associate Member of the Institute of Chartered Foresters
Technician Member of the Arboricultural Association

Qualifications

FdSc (Arb) Foundation Degree in Science (Arboriculture)
Level 3 Extended National Diploma in Arboriculture and Forestry

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 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.

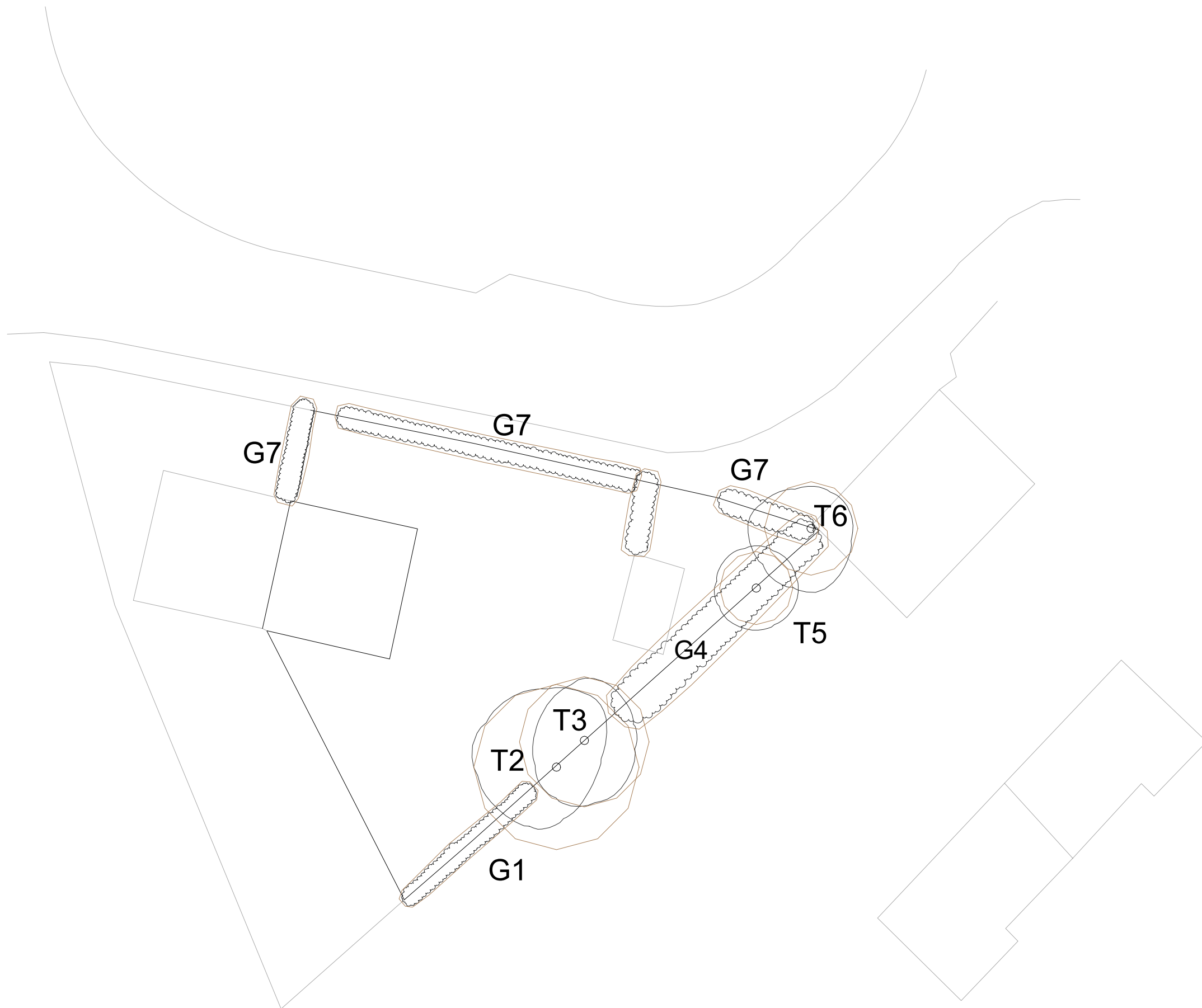
C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

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	Physiology	Structural	Life Expectancy	Amenity	Category	Works
G1	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	2.5	1	150	No	0	1	1	1	1	No visual defects	Multiple stemmed at base. Vertical. Old pruning wounds. Stubs.	Normal. Pruning wounds.	Recently managed boundary hedge.	Fair	Fair	20 to 40 yrs	Low	C	No works required
T2	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	10	4	210, 190, 80, 120	No	2	4	2	3	4	No visual defects	Multiple stemmed at base. Vertical. Bark damage. Tight union. Partially included bark.	Normal	Boundary tree	Good	Good	>40 yrs	Low	C	Crown lift overhanging branches up to 5.5m from ground level - pruning back to suitable points.
T3	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	10	1	230	No	2	3	2	3	3	No visual defects	Twin stemmed at base. Vertical. Old pruning wounds. Stubs.	Normal	Boundary tree	Good	Fair	>40 yrs	Low	C	Crown lift overhanging branches up to 5.5m from ground level - pruning back to suitable points.
G4	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	6	1	150	No	0	2	2	2	2	No visual defects	Multiple stemmed near base. Tight unions. Partially included bark.	Normal. Old pruning wounds	Previously a hedge now reverted into shrubby trees	Fair	Fair	>40 yrs	Low	C	Cut back overhanging branches by around 1m to near boundary. Advised to reduce height also.
T5	Elder	<i>Sambucus nigra</i>	Semi-mature	6	2	100, 100	Yes	1	2	2	2	2	No visual defects	Twin stemmed at base. Vertical. Stubs. Old pruning wounds.	Minor deadwood	Situated within hedge. Limited access around base.	Fair	Fair	<10 yrs	Low	C	No works required
T6	Elder	<i>Sambucus nigra</i>	Early-mature	9	1	180	Yes	2.5	2	2	3	3	No visual defects	Single stemmed. Vertical. Bark damage.	Normal	Stem growing against building. Limited long term value.	Fair	Fair	10 to 20 yrs	Low	C	No urgent works yet future removal advised. Lower overhanging branches could be lifted to avoid conflict with new development.

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	Physiology	Structural	Life Expectancy	Amenity	Category	Works
G7	Privet	Ligustrum sp	Semi-mature	2	1	<80	Yes	0	1	1	1	1	No visual defects	Multiple stemmed. Old pruning wounds. Stubs.	Normal	managed boundary hedge.	Fair	Good	10 to 20 yrs	Low	C	Remove as required to facilitate new development





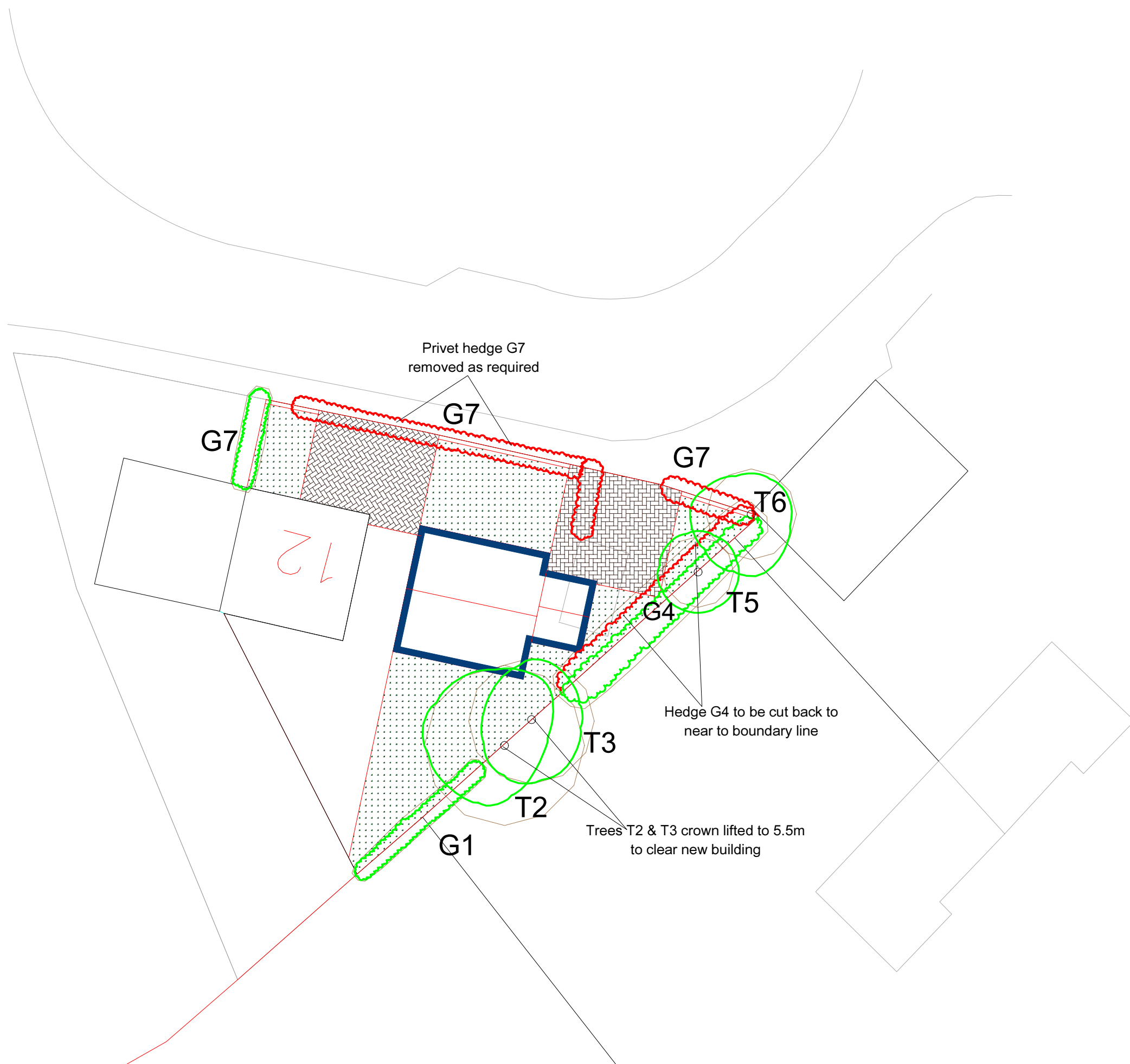
Appendix 5:
Tree Constraints Plan

12 Coltfeld, Birdwell
Ref: AWA1721

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

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	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



**Appendix 6:
Tree Impacts Plan**

12 Coltfeld, Birdwell
Ref: AWA1721/TIP

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