TREE CONSULTANTS

# ARBORICULTURAL REPORT

## & Impact Assessment

to **BS5837:2012** at:

*Land at*

***South View,***
***Darfield,***
***Barnsley,***
***South Yorkshire***
***S73 9NA***

Prepared for:
***J R Planning Consultancy Ltd.***
*40 Northern Common,*
*Dronfield Woodhouse,*
*Dronfield*
*S18 8XJ*

Date: *October 2020*

Reference: *AWA3264*

Institute of Chartered Foresters
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# 1. Introduction

## 1.1 Instructions and Brief

1.1.1 We have been instructed by J R Planning Consultancy 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 2020.

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 an Ordnance 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.

1.2.6 The tree survey data collection was carried out by Mr Patrick Rowntree, Cert Arb L3, TechArborA, PTI (Lantra), 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 site is located in the village of Darfield, Barnsley, South Yorkshire.

2.1.2 The site comprises a large residential dwelling with associated landscaping and facilities and a large open field area situated to the north of the site.

2.1.3 The approximate area of the survey is highlighted in the image below (Google Earth, 2019):



# 3. The Trees

## 3.1 Legal

3.1.1 An online search has been carried out with Barnsley Metropolitan Borough Council on 20/07/20 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.

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 39 items of woody vegetation, comprised of 31 individual trees and 8 groups of trees or shrubs or hedges.

3.2.2 All 39 trees and groups are lower value retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).

3.2.3 The tree cover within the site consists mainly of low value, unmanaged hedge groups and shrubs situated along the site boundaries, and an area of small fruit trees.

3.2.4 The central areas of the site contain little of arboricultural significance, generally consisting of open fields.

3.2.5 Species diversity at the site is relatively poor. The dominant species are Apple and Hawthorn with several Blackthorn, Cherry, Elder and Plum and the occasional Birch, Buddleia, Hazel, Maple and Willow. Most of the trees are semi-mature with only occasional early mature trees.

3.2.6 Along the site's eastern boundary is the sites largest tree; a semi-mature Pine, T16. This tree was in reasonable condition with good long-term prospects. However, it only has only limited arboricultural value.

3.2.7 Towards the east of the site is a densely planted, low-value orchard (T22 to T35). The mixed species fruit trees in this area are generally in very poor condition, with excessive historic pruning and extensive bark damage. Several of the trees have partially failed and both individually and collectively these trees provide extremely limited amenity value.

3.2.8 The remaining trees and hedges within the site are all particularly low-value, retention category 'C' trees. Many of them are self-set saplings or unmanaged and overgrown hedges, and they should not pose a constraint on the site's development proposal.

3.2.9 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix 4). In such cases measurements were estimated and the condition values are indicative only.

3.2.10 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.

3.2.11 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.

3.2.12 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 new residential dwellings with associated access, facilities and landscaping.

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, 23 trees and groups will require removal as they are situated in the footprint of the structures or their retention and protection throughout the development is not suitable.

4.2.2 The trees requiring removal are T15, T17, and T19 to G39.

4.2.3 Most of the trees requiring removal are small low value fruit trees, which are generally in very poor condition with very limited prospects.

4.2.4 While some of trees for detailed for removal along the site's eastern boundary (T15, T17, T19, T20 and T20) could feasibly be retained, due to their poor condition and limited prospects, they are unsuitable within their proposed garden setting, and replacement planting would be more suitable.

4.2.5 Due to the low value of the trees to be removed the removals will have only 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.

4.3.2 New boundary fencing is proposed within the RPA of the trees T16 and T18. The encroachment into the trees' RPA should not significantly adversely impact on the health or future condition of the trees, provided care is taken during the construction to avoid root damage, including the use of posts and panels or pile and beam type footings as opposed to strip footings.

4.3.3 The design of the new development has considered the trees crown position in relation to the development. 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.

4.3.4 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.

4.4.2 As such, suitable new tree planting will 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. The protective fencing for this site should be located to protect the RPAs of the retained trees as detailed on the attached Tree Impacts Plan at Appendix 6.

4.5.2 The final fencing position should be agreed on by the LPA before the commencement of any site works. The protective fencing will be appropriate to the degree and proximity of likely construction works. In this instance, it is suggested (if acceptable by the LPA) an adequate level of protection for the trees could be provided by 'Heras' type fencing, of welded mesh panels on rubber or concrete feet.

4.5.3 The area enclosed by the fencing is referred to as the Construction Exclusion Zone (CEZ); this area should be considered a restricted area. No pedestrians, vehicles, storage of materials, equipment or machinery should be allowed with the CEZ. The site manager must ensure that all personnel are aware of the restrictions that apply to the fenced-off area.

4.5.4 If required by the Local Planning Authority, an associated Arboricultural Method Statement with Tree Protection Plan, can be provided.

# 5. Signature

I trust this report provides all the required information.

Signed



.....

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

**29th October 2020**

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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 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. 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 Patrick Rowntree** *Cert Arb L3, TechArborA, PTI (Lantra)*
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 and is qualified in Professional Tree Inspection. 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.

**Mr Drew Leeper** *Cert Arb L3, TechArborA*
Drew has over 10 years' experience within the arboricultural sector and was awarded Distinction in the Extended Diploma in Forestry & Arboriculture. From working abroad in Canada as a climbing arborist and returning home to running his own tree care firm. Drew has also been fortunate enough to gain valuable experience working at the Royal Botanical Gardens of Kew. He 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 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 DATA**



| | 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* |
| G1 | Hawthorn, Blackthorn, Buddleia | *Crataegus sp. Prunus sp. Buddleia sp.* | Semi-mature | 4.5 | 10+ | 60 avg | Yes | 1 | See plan | | | | No visual defects, Limited access around base | Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union | Old pruning wounds, Small / sparse | Sparse, previously managed mixed species hedge, now overgrown. Central area very sparse. Very limited value. | Fair | Fair | 20 to 40 yrs | Low | **C** | No works required. |
| G2 | Hawthorn, Blackthorn, Willow | *Crataegus sp. Prunus sp. Salix sp.* | Semi-mature | 4.5 | 10+ | 60 avg | Yes | 1 | See plan | | | | No visual defects, Limited access around base | Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union | Old pruning wounds, Small / sparse | Dense previously managed mixed species hedge, now overgrown. | Fair | Fair | 20 to 40 yrs | Low | **C** | No works required. |
| G3 | Hawthorn | *Crataegus monogyna* | Semi-mature | 4.5 | 3 | 160 180 200 | Yes | 2 | 2.5 | 1 | 2.5 | 2.5 | No visual defects, Limited access around base | Single stemmed, Twin stemmed, Vertical, Stubs, Epicormic growths, Ivy covered, Bark damage | Low vigour, Minor deadwood | Two trees forming single canopy. Growing through boundary fence, causing bark damage and limiting access. Limited long-term value. | Fair | Fair | 20 to 40 yrs | Low | **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 Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T4 | Maple | *Acer campestre* | Semi-mature | 6 | 9 | 130 avg | No | 2 | 3 | 1.5 | 2 | 2 | Soil erosion, Exposed roots | Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Bark damage, Minor cavities, Minor decay, Tight union, Partially included bark | Minor dieback, Minor deadwood | Situated on banking with multiple large exposed roots. Several cavities with decay to multiple stems. | Fair | Fair | 20 to 40 yrs | Low | **C** | No works required. |
| T5 | Maple | *Acer campestre* | Semi-mature | 7.5 | 7 | 150 avg | No | 2 | 3 | 1.5 | 3 | 1.5 | Soil erosion, Exposed roots | Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Bark damage, Minor cavities, Minor decay, Tight union, Partially included bark | Minor dieback, Minor deadwood | Situated on banking with multiple large exposed roots. Several wounds with decay to multiple stems. | Fair | Fair | 20 to 40 yrs | Low | **C** | No works required. |
| T6 | Hazel | *Corylus avellana* | Semi-mature | 5 | 10+ | 70 avg | No | 1 | 2.5 | 4.5 | 2.5 | 1 | Soil erosion, Exposed roots | Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark | Normal, Minor deadwood | | Fair | Fair | 20 to 40 yrs | Low | **C** | No works required. |
| T7 | Hawthorn | *Crataegus monogyna* | Semi-mature | 2.5 | 10+ | 50 avg | No | 0.5 | 1 | 1.5 | 1 | 1 | No visual defects | Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union | Small / sparse, Minor deadwood | Low value sapling, situated on banking. | Fair | Fair | >40 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 Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T8 | Hawthorn | *Crataegus monogyna* | Semi-mature | 4 | 10+ | 120 avg | No | 0.5 | 1.5 | 2.5 | 4 | 2.5 | Soil erosion, Exposed roots | Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark | Minor dieback, Minor deadwood | Situated on steep banking. | Fair | Fair | 20 to 40 yrs | Low | **C** | No works required. |
| T9 | Hawthorn | *Crataegus monogyna* | Semi-mature | 4 | 10+ | 100 avg | No | 0.5 | 1.2 | 2 | 1.5 | 1 | Soil erosion, Exposed roots | Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark | Normal, Minor deadwood | Low value sapling situated on steep banking. | Fair | Fair | >40 yrs | Low | **C** | No works required. |
| T10 | Hawthorn | *Crataegus monogyna* | Semi-mature | 2 | 6 | 80 avg | No | 0.5 | 1 | 2 | 1 | 2 | Soil erosion | Multiple stemmed at base, Slight lean, Stubs, Epicormic growths, Tight union, Partially included bark | Small / sparse, Minor deadwood | Low value sapling situated on steep banking. | Poor | Fair | 20 to 40 yrs | Low | **C** | No works required. |
| G11 | Hawthorn | *Crataegus monogyna* | Semi-mature | 3.5 | 10+ | 120 avg | No | 1 | 2 | 4 | 2.5 | 4 | Soil erosion | Multiple stemmed at base, Vertical, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Tight union, Partially included bark, Minor decay | Minor deadwood, Minor dieback | Two trees forming single canopy. Situated on steep banking. Limited long-term value. | Fair | Fair | 20 to 40 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 Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T12 | Cherry | *Prunus avium* | Semi-mature | 3.5 | 2 | 80<br>50 | No | 1.5 | 1.5 | 1 | 1 | 1 | Soil erosion | Twin stemmed at 1m, Vertical, Stubs, Epicormic growths, Tight union | Small / sparse, Minor deadwood | Self set sapling situated on steep banking. Limited long-term value. | Fair | Fair | 20 to 40 yrs | Low | **C** | No works required. |
| G13 | Hawthorn | *Crataegus monogyna* | Semi-mature | 4 | 10+ | 130 avg | Yes | 0.5 | See plan | | | | Soil erosion, Exposed roots, Root damage /loss | Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Bark damage, Tight union, Partially included bark | Normal, Minor deadwood | Two trees forming single canopy. Dense canopy and steep banking limiting access and preventing detailed inspection of base. Major soil erosion, with many exposed and damaged roots. Limited long-term value. | Fair | Poor | 20 to 40 yrs | Low | **C** | No works required. |
| T14 | Birch | *Betula pendula* | Semi-mature | 3.5 | 3 | 80<br>70<br>50 | No | 1.5 | 1 | 1 | 1 | 1 | No visual defects | Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Bark damage, Tight union, Partially included bark | Normal, Minor deadwood | Low value sapling situated on steep banking. | Fair | Fair | >40 yrs | Low | **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 Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T15 | Willow | *Salix caprea* | Semi-mature | 4 | 10+ | 90 avg | No | 1 | 1.5 | 1 | 2 | 2 | No visual defects | Multiple stemmed at 1m, Vertical, Old pruning wounds, Stubs, Epicormic growths, Bark damage, Tight union, Partially included bark, Minor decay | Old pruning wounds, Minor deadwood | Previously topped at 1m, with subsequent epicormic growth now forming remaining canopy. Limited long-term value. | Fair | Fair | 20 to 40 yrs | Low | **C** | Removal required to facilitate development. |
| T16 | Pine | *Pinus sylvestris* | Semi-mature | 9.5 | 1 | 330 | No | 2 | 3 | 1.5 | 0.5 | 2.5 | No visual defects | Single stemmed, Vertical, Stubs, Old pruning wounds | Normal | | Fair | Good | >40 yrs | Moderate | **C** | No works required. |
| T17 | Pine | *Pinus sylvestris* | Semi-mature | 9 | 1 | 170 | No | 5 | 0.5 | 1 | 1 | 1 | Soil compaction | Single stemmed, Vertical, Stubs, Old pruning wounds | Small / sparse, Minor deadwood | Soil compaction from adjacent log pile. Suppressed by adjacent Cherry and Pine. Limited long-term value. | Fair | Fair | 20 to 40 yrs | Low | **C** | Removal required to facilitate development. |
| T18 | Cherry | *Prunus avium* | Semi-mature | 7.5 | 1 | 280 | Yes | 2 | 1 | 2 | 3 | 3 | Soil compaction | Single stemmed, Vertical, Stubs, Epicormic growths, Bark damage | Low vigour, Discolouration, Minor deadwood | Large log pile to 1m surrounding tree, causing soil compaction and limiting access. | Fair | Fair | 20 to 40 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 Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T19 | Cherry | *Prunus avium* | Semi-mature | 6.5 | 2 | 160 160 | No | 2 | 0.5 | 2 | 1 | 2 | Soil compaction | Stubs, Epicormic growths, Bark damage, Vertical, Twin stemmed at 1m, Tight union, Partially included bark | Low vigour, Discolouration, Minor deadwood | Logs and general waste causing soil compaction. Suppressed form. Limited long-term value | Fair | Fair | 20 to 40 yrs | Low | **C** | Removal required to facilitate development. |
| T20 | Pine | *Pinus sylvestris* | Semi-mature | 6.5 | 1 | 180 | Yes | 2.5 | 1 | 1 | 1 | 4 | No visual defects, Limited access around base | Single stemmed, Vertical, Stubs | Normal, Minor deadwood | Situated beyond waste pile and amongst dense shrubs, limiting access. | Fair | Fair | >40 yrs | Low | **C** | Removal required to facilitate development. |
| T21 | Pine | *Pinus sylvestris* | Semi-mature | 6.5 | 1 | 210 | Yes | 2.5 | 1 | 1 | 1 | 4 | No visual defects, Limited access around base | Single stemmed, Vertical, Stubs | Normal, Minor deadwood | Situated beyond waste pile and amongst dense shrubs, limiting access. | Fair | Fair | >40 yrs | Low | **C** | Removal required to facilitate development. |
| T22 | Apple | *Malus sp.* | Young | 3.5 | 6 | 100 avg | No | 1 | 1 | 2.5 | 1.5 | 1 | No visual defects | Multiple stemmed at base, Vertical, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Minor cavities, Minor decay | Old pruning wounds, Discolouration, Minor dieback, Minor deadwood | Previously topped at 2m - numerous pruning wounds with decay. Major bark damage. Limited long-term value | Poor | Fair | 10 to 20 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* |
| T23 | Apple | *Malus sp.* | Semi-mature | 3.5 | 2 | 110<br>80 | No | 1 | 1 | 1 | 1.5 | 1.5 | No visual defects | Vertical, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Minor cavities, Minor decay | Old pruning wounds, Discolouration, Minor dieback, Minor deadwood | Previously topped at 2m - numerous pruning wounds with decay. Major bark damage. Limited long-term value. | Poor | Fair | 10 to 20 yrs | Low | **C** | Removal required to facilitate development. |
| T24 | Plum | *Prunus Domestica* | Semi-mature | 5 | 4 | 130<br>120<br>110<br>90 | No | 1 | 2 | 1 | 1 | 2 | No visual defects | Multiple stemmed at 1m, Vertical, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Tight union, Partially included bark, Minor cavities, Minor decay | Old pruning wounds, Minor dieback, Minor deadwood | | Fair | Fair | 20 to 40 yrs | Low | **C** | Removal required to facilitate development. |
| T25 | Cherry | *Prunus avium* | Semi-mature | 3.5 | 2 | 130<br>150 | No | 1 | 1 | 2 | 2.5 | 2 | No visual defects | Twin stemmed at 0.5m, Significant lean, Stubs, Epicormic growths, Bark damage, Minor cavities, Minor decay | Old pruning wounds, Minor dieback, Minor deadwood | | Fair | Poor | 10 to 20 yrs | Low | **C** | Removal required to facilitate development. |
| T26 | Apple | *Malus sp.* | Semi-mature | 4 | 1 | 70 | No | 1 | 1 | 1 | 1 | 1.5 | No visual defects | Single stemmed, Vertical, Stubs, Epicormic growths | Small / sparse, Minor deadwood | | Fair | Fair | >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* |
| T27 | Plum | *Prunus Domestica* | Semi-mature | 6 | 6 | 100 avg | No | 1.5 | 2 | 1 | 2 | 1 | No visual defects | Multiple stemmed at 1m, Vertical, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Tight union, Partially included bark | Old pruning wounds, Minor dieback, Minor deadwood | Previously topped at 2m. | Fair | Fair | 20 to 40 yrs | Low | **C** | Removal required to facilitate development. |
| T28 | Plum | *Prunus Domestica* | Semi-mature | 5 | 1 | 150 | No | 2 | 2 | 2 | 1.5 | 0.5 | No visual defects | Single stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Bark damage | Old pruning wounds, Minor dieback, Minor deadwood | Previously topped at 2m. | Fair | Fair | 20 to 40 yrs | Low | **C** | Removal required to facilitate development. |
| T29 | Apple | *Malus sp.* | Semi-mature | 3.5 | 4 | 70<br>90<br>100<br>90 | No | 1 | 1 | 2 | 2 | 1 | No visual defects | Multiple stemmed at 1m, Slight lean, Stubs, Old pruning wounds, Epicormic growths, Bark damage | Old pruning wounds, Minor dieback, Minor deadwood | Previously topped at 1.5m. Major bark damage to stem. | Fair | Fair | 10 to 20 yrs | Low | **C** | Removal required to facilitate development. |
| T30 | Apple | *Malus sp.* | Semi-mature | 3 | 1 | 90 | No | 1 | 0.5 | 1 | 1.5 | 1.5 | No visual defects | Single stemmed, Significant lean, Stubs, Old pruning wounds, Epicormic growths, Bark damage | | Major bark damage to stem. | Fair | Poor | 10 to 20 yrs | Low | **C** | Removal required to facilitate development. |

AWA TREE CONSULTANTS

| | 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* |
| T31 | Plum | *Prunus Domestica* | Semi-mature | 4.5 | 2 | 140 130 | No | 1 | 1 | 1 | 1.5 | 0.5 | No visual defects | Twin stemmed at 1m, Vertical, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Minor cavities, Minor decay | Small / sparse, Snapped /hanging branches, Minor deadwood | Multiple historically failed limbs, leaving large wounds. Limited long-term value | Poor | Poor | 10 to 20 yrs | Low | **C** | Removal required to facilitate development. |
| T32 | Apple | *Malus sp.* | Semi-mature | 3.5 | 1 | 160 | | 1 | 2 | 1 | 0.5 | 1 | No visual defects | Single stemmed, Slight lean, Stubs, Old pruning wounds, Epicormic growths, Bark damage | Small / sparse, Minor deadwood, Minor dieback | Major bark damage to stem. | Poor | Fair | 10 to 20 yrs | Low | **C** | Removal required to facilitate development. |
| T33 | Apple | *Malus sp.* | Semi-mature | 3 | 1 | 140 | No | 1 | 1 | 0.5 | 1 | 0.5 | No visual defects | Single stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Minor decay | Small / sparse, Minor dieback, Minor deadwood | Suppressed form. Major bark damage to stem. | Poor | Poor | 10 to 20 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* |
| T34 | Apple | *Malus sp.* | Semi-mature | 4.5 | 1 | 150 | No | 1 | 2.5 | 2 | 1 | 0.5 | Soil erosion, Exposed roots | Single stemmed, Significant lean, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Moderate decay | Unbalanced, Moderate dieback, Minor deadwood, Small / sparse | Significant northern lean. Major bark damage and decay to stem. Very limited long-term value. | Poor | Poor | <10 yrs | Low | **C** | Removal required to facilitate development. |
| T35 | Pear | *Pyrus communis* | Semi-mature | 6 | 2 | 90 100 | No | 1 | 1 | 2 | 1 | 2 | No visual defects | Twin stemmed at base, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark | Normal, Minor deadwood | | Fair | Fair | >40 yrs | Low | **C** | Removal required to facilitate development. |
| G36 | Hawthorn | *Crataegus monogyna* | Semi-mature | 4.5 | 10+ | 50 avg | No | 1 | See plan | | | | No visual defects | Single & Multiple stemmed, Vertical, Stubs, Epicormic growths, Tight union | Old pruning wounds, Minor deadwood | Previously managed hedgerow, now overgrown. Occasional taller mixed species sapling throughout group. | Fair | Fair | >40 yrs | Low | **C** | Removal required to facilitate development. |
| G37 | Hawthorn | *Crataegus monogyna* | Semi-mature | 4.5 | 10+ | 80 avg | No | 1 | See plan | | | | No visual defects | Single & Multiple stemmed, Vertical, Stubs, Epicormic growths, Tight union, Old pruning wounds | Old pruning wounds, Minor deadwood | Previously managed hedgerow, now overgrown. Occasional Buddleia | Fair | Fair | >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* |
| T38 | Prunus | *Prunus sp.* | Semi-mature | 2.5 | 2 | 100 60 | No | 1.5 | 0.5 | 1 | 2 | 0.5 | No visual defects | Twin stemmed at base, Slight lean, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Minor decay, Decay fungi | Unbalanced, Major dieback, Minor deadwood | Very limited remaining live growth. Ganoderma bracket on dominant stem at 0.5m. Very limited long-term value. | Poor | Poor | >40 yrs | Low | **C** | Removal required to facilitate development. |
| G39 | Elder, Hawthorn, Willow | *Sambucus sp. Crataegus sp. Salix sp.* | Semi-mature | 4.5 | 10+ | 100 avg | Yes | 1 | See plan | | | | No visual defects, Limited access around base | Single & Multiple stemmed, Vertical, Stubs, Epicormic growths, Bark damage, Minor decay | Old pruning wounds, Minor dieback, Minor deadwood | Dense mixed species shrub group growing through adjacent fencing causing significant bark damage and limiting access. Limited long-term value. | Fair | Poor | 10 to 20 yrs | Low | **C** | Removal required to facilitate development. |




AWA TREE CONSULTANTS

# Appendix 5:
# Tree Constraints Plan

South View, Darfield, Barnsley S73 9NA
Ref: AWA3264

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

SCALE: 1:500 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 |


Offices
South View
Plot 1
Plot 2
Plot 3
Plot 4
Plot 5
Plot 6
Plot 7
Plot 8
Plot 9
Plot 10
Plot 11
Plot 12
Plot 13
Plot 14
Plot 15
Plot 16
Plot 17
Plot 18
Plot 19
Plot 20
Plot 21
Plot 22
Plot 23
Plot 24
Plot 25
Plot 26
Plot 27
Plot 28
Plot 29
Plot 30
Plot 31
VP
G1
G2
G3
G11
G13
G36
G37
G39
T4
T5
T6
T7
T8
T9
T10
T12
T14
T15
T16
T17
T18
T19
T20
T21
T22
T23
T24
T25
T26
T27
T28
T29
T30
T31
T32
T33
T34
T35
T38
Oak sapling
Sparse Privet shrubs
Prunus sapling
Fig sapling
Standing dead buddleia
Dense inaccessible saplings
Elder sapling
Cherry sapling
Apple saplings
Pear sapling
Apple saplings
Hawthorn scrub
GUL
SV
SP
TP
MH
NORTH
AWA
TREE CONSULTANTS
Appendix 6:
Tree Impacts Plan
South View, Darfield, Barnsley S73 9NA
Ref: AWA3264
BRITISH STANDARD 5837:2012
SCALE: 1:500
PAPER: A3
TREE/HEDGE TO BE RETAINED
TREE/HEDGE TO BE REMOVED
RPA: ROOT PROTECTION AREA
TREE STEM