TREE CONSULTANTS

ARBORICULTURAL METHOD STATEMENT

to BS 5837:2012 at

Oakfield, Intake Lane, Barnsley, South Yorkshire S75 2HU

This document describes how the trees will be protected and managed during the development of this site. It explains how and when the protection measures must be installed and maintained throughout the development.

A copy of this document report must be permanently available on site for the duration of all development activity and should be referenced for practical guidance on how to protect the retained trees at this site.

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

Date: *June 2020*

Reference: *AWA3212*

Institute of Chartered Foresters
Registered Consultant

Office: 0114 272 1124 Mobile: 0776 631 0880 Email: info@awatrees.com Website: awatrees.com
Union Forge, 27 Mowbray Street, Sheffield, S3 8EN. AWA Tree Consultants Limited. Company No. 8520123. Registered in England & Wales.

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1. Introduction

1.1 Instruction

1.1.1 We were instructed by White Agus Partnership to prepare an arboricultural method statement for the proposed development at:

- **Oakfield, Intake Lane, Barnsley, South Yorkshire S75 2HU**

1.2 Purpose

1.2.1 This method statement has been prepared in order to demonstrate that the development operations at this site can be undertaken with minimal risk of adverse impact on the trees to be retained.

1.2.2 This method statement conforms to BS 5837:2012 *Trees in relation to design, demolition and construction - Recommendations*. It is based on the arboricultural data, collected at a site visit during January 2019, detailed within Appendix 3 of this report.

1.3 Description of Development

1.3.1 It is proposed to extend the existing residential property. The proposed development layout has been provided by my client and is the basis for the Tree Protection Plan (TPP) at Appendix 4.

1.4 Details of Consent

1.4.1 Planning consent is subject to this method statement being agreed upon in advance by the Local Planning Authority. The contents of this report must be adhered to, before, during, and after the construction phase.

1.4.2 As such, no equipment, machinery or materials shall be brought onto the site in connection with the development until this arboricultural method statement detailing tree management and tree protection measures has been submitted to and approved by the Local Planning Authority.

2. Method Statement Timeline

2.1 Overview of Sequence of Operations

2.1.1 In overview, it is necessary to undertake the following sequence of operations in relation to arboricultural input for development operations.

1 Method statement approved by the LPA

2 Undertake tree removals and pruning works

3 Install tree protection fencing and ground protection boards

4 Pre commencement meeting/ confirm fencing and boards are as specified

5 Construct new development

6 Remove tree protection fencing and ground protection boards

2.2 Specific Sequence of Operations

2.2.1 The following timeline table informs the key principles for development operations proceeding in relation to arboricultural requirements conditioned as part of this method statement.

2.2.2 The actions and timescales within this table must be adhered to in order to discharge the arboricultural method statement planning condition for this site.

2.2.3 The precise timing and order of some of the development operations may need to be changed due to site specific operational requirements, yet any operations that may affect the trees on the site must be done so under arboricultural supervision by a suitably qualified person appointed by the contractor.

Sequence of Operations		
Stages	***Action***	***Arboricultural Input***
1 Approval	This AMS is submitted to and approved in writing by the LPA.	If necessary, liaise with contractor and LPA to discuss methodologies detailed.
2 Tree Works	Tree removals and pruning works shall be carried out as the first operation on site, in accordance with Appendix 3 and as detailed in section 3.1.	Review the tree work requirements with the tree contractor. If necessary, liaise with the contractor on site during tree works.
3 Tree Protection	Installation of the tree protection fencing and ground protection boards will take place prior to any storage of plant, materials and machinery. As shown at Appendix 4.	If necessary, liaise with the contractor installing the tree protection fencing and ground protection boards until completed to the standard specified in this method statement.
4 Site Meeting	Following installation of tree protection fencing and ground protection boards, the LPA shall be invited to inspect the fencing, boards and tree works, and discuss any other site operations that have implications for trees.	Meeting with a representative of the LPA and the site manager. Alternatively, contractor can confirm the fencing, boards and tree works are as specified by taking photographs.
5 Construction	Undertake the construction of the new development.	If necessary, liaise with the local authority and the site foreman to ensure any issues are adequately resolved.
6 Site Finishing	Removal of tree protection fencing and ground protection boards must only be undertaken when all site traffic and machinery has left the site.	If acceptable to the LPA, the contractor can take photos of the site to give to the LPA to gain approval for the removal of the tree protection fencing and ground protection boards.

3. Tree Management

3.1 Tree Works

3.1.1 Trees T11, T12 and T13 require removal to facilitate the development.

3.1.2 The trees requiring removal are highlighted in red on the plan at Appendix 4 and detailed in the tree data schedule at Appendix 3.

3.1.3 Pruning works have been recommended to T8 regardless of development at the site.

3.1.4 All tree work should be carried out according to British Standard 3998:2010 *Tree Work - Recommendations*.

3.1.5 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.

4. Tree Protection

4.1 Tree Protection Fencing

4.1.1 The tree protection fencing will be appropriate to the degree and proximity of likely construction works. In this instance, the default BS 5837:2012 tree protection fencing is deemed disproportionate. It is suggested (if acceptable by the LPA) that an adequate level of protection for the moderate value trees at the site could be provided by 'Heras' type fencing, of welded mesh panels on rubber or concrete feet (see Figures 1 and 2 at Appendix 1 for examples) and an adequate level of protection for the low value trees at the site could be provided by plastic mesh fencing secured to the ground with heavy duty metal stakes (see Figure 4 at Appendix 1 for an example).

4.1.2 The tree protection fencing for this site should be located as shown on the Tree Protection Plan (TPP) at Appendix 4 (thick orange line for plastic mesh tree protection fencing and thick purple line for 'Heras' tree protection fencing).

4.1.3 The precise fencing location may need to be slightly adjusted on site due to local site conditions, but is not expected to differ from that shown on

the TPP. The final fencing position must be agreed on by the LPA before the commencement of any site works.

4.1.4 The tree protection fencing details should be incorporated into relevant subsequent plans, method statements used for design purposes and construction drawings issued for use on site, to ensure that all interested parties are fully aware of the areas in which access and works may and may not take place.

4.1.5 The 'Heras' tree protection fencing should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence (see Figure 3 at Appendix 1 for an example). The fencing panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins or mounted on a block tray.

4.1.6 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 unless specified within this method statement. The site manager must ensure that all personnel are aware of the restrictions that apply to the fenced-off area.

4.1.7 Once the fencing is erected, waterproof warning signs labelled '*Tree Protection Area*' should be placed at 3m intervals to ensure that all personnel are aware of the restrictions that apply to the fenced-off area (see Figures 5 and 6 at Appendix 1 for example signs).

4.1.8 The tree protection fencing should be inspected for faults or damage by the site manager or other responsible named person on a regular basis and a written record kept. Any faults or defects should be repaired or replaced as soon as is reasonably practicable. The tree protection fencing shall not be removed, breached or altered without prior written authorisation from the local planning authority and under arboricultural supervision by a suitable named responsible individual appointed by the site manager.

4.2 Ground Protection

4.2.1 Ground protection will be required within the RPA of T20 to avoid compaction of the soil which can arise from foot and vehicle traffic, especially in wet conditions, so that tree root functions remain unimpaired.

4.2.2 Interlinked ground protection boards should be used (see Figure 7 at Appendix 1 for an example). They should be located as shown on the Tree Protection Plan (TPP) at Appendix 4 (light blue hatched area).

4.2.3 The precise location of the boards may need to be slightly adjusted on site due to local site conditions, but is not expected to differ significantly from that shown on the TPP.

4.2.4 The new temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

4.2.5 For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane.

4.2.6 For pedestrian-operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane.

4.3 Drainage and Utilities

4.3.1 Drainage and utilities are to be directed away from the retained trees. Over-ground services should ideally be routed away from areas where they are likely to interfere with the crowns of mature trees. New underground services should be grouped together and routed away from RPAs. *NJUG 10: Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees* should be considered when installing services.

4.4 Additional Precautions

4.4.1 Allowance should be made for operations outside of the CEZ that could indirectly impact on trees. Including space for site huts, temporary toilet facilities (including their drainage) and other temporary structures; and space for storing (whether temporary or long-term) materials.

4.4.2 Care must be taken to prevent contamination with chemical spillages, including petrol, diesel and oils. Cement mixers and any other toxic materials should not be permitted within the RPA of the trees. Any

materials whose accidental spillage would cause damage to a tree should be stored and handled well away from the outer edge of its RPA.

4.4.3 Fires on the site should be avoided if possible. Where they are unavoidable, and approved by the Local environmental health authority, they should not be lit in a position where heat could affect foliage or branches. The potential size of a fire and the wind direction should be considered when determining its location, and it should be attended always until safe enough to leave.

5.1 Post Construction Landscaping

5.2.1 Many of the trees on site may be subject to some form of landscaping or seeding beneath their canopies after the development phase. At this stage the protective fencing will have been removed and the property may be occupied.

5.2.2 Landscaping works should be carried out in such a way as to avoid ground level changes or deep digging. Tractor mounted rotovation or other mechanised cultivation methods must not be used.

5.2.3 No heavy machinery should be brought into the vicinity of retained trees.

5.2.4 Herbicides should be appropriate for the purpose and should not be used in such a way as to damage any retained trees or vegetation.

5. Signature

I trust this report provides all the required information.

Signed



.....

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

12th June 2020

AWA Tree Consultants Limited
Union Forge
27 Mowbray Street
Sheffield
S3 8EN

www.awatrees.com

Appendix 1: Images and Figures

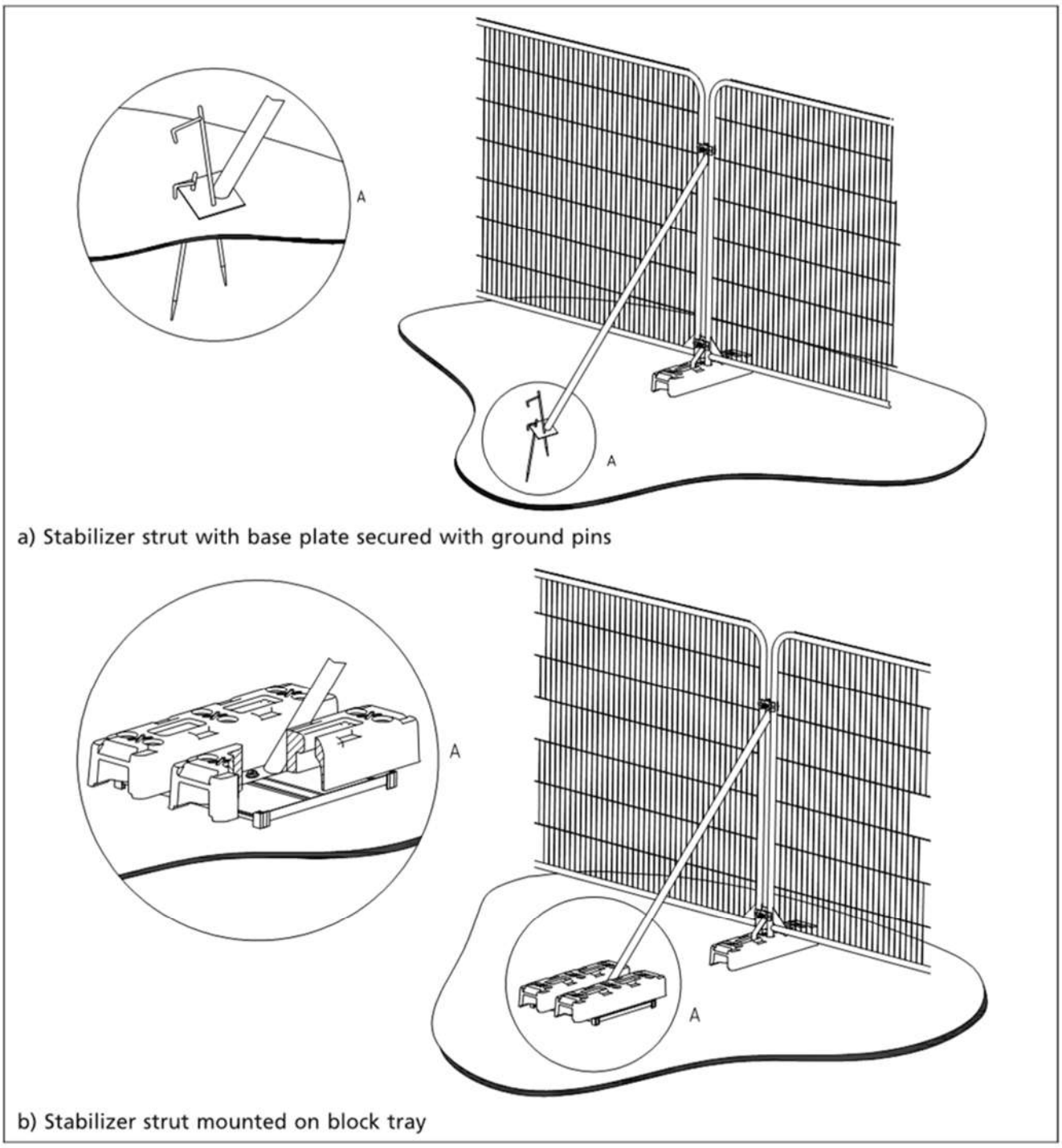


Figure 1: Secured 'Heras' type fencing with stabilizing system and fixed central pins (©BSI)



Figure 2: Secured 'Heras' type fencing with stabilizing system and anti-tamper couplers



Figure 3: Anti-tamper couplers to secure fencing and avoid unauthorised access



Figure 4: Plastic mesh fencing secured with heavy duty metal stakes



Figure 5: Warning sign for fencing



Figure 6: Example of A3 correx tree protection warning sign fixed to fencing panel


Figure 7: Interlinked ground protection boards place on top of woodchip

Appendix 2: Relevant Contact Details

Contact Name	Organisation/ Details	Contact Number	Contact E-mail
Thomas Agus	White Agus Partnership	[redacted]	[redacted]
Adam Winson	AWA Tree Consultants Ltd Arboricultural Consultant	[redacted]	[redacted]
[redacted]	Barnsley Tree Officer Development Management	[redacted]	[redacted]

	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	Cherry	*Prunus sp.*	Semi-mature	7	2	120, 200	No	3	2	3.5	2.5	2.5	No visual defects	Twin stemmed at 1m. Slight lean. Ivy covered	Minor deadwood. Ivy covered	Ivy prevented detailed inspec ion and accurate stem measurement. Clematis covering crown.	Fair	Fair	10 to 20 yrs	Moderate	**C**	No works required
T2	Plum	*Prunus cerasifera* 'Nigra'	Early-mature	8	1	270	No	2	3	3	2.5	2.5	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs	Old pruning wounds. Minor deadwood. Epicormic growths		Fair	Good	20 to 40 yrs	Moderate	**C**	No works required
T3	Pear	*Pyrus sp.*	Early-mature	10	2	370, 300	No	2	4	3	3	3	No visual defects	Twin stemmed at base. Slight lean. Bark damage	Old pruning wounds. Minor deadwood. Snapped/ hanging branches	Previously Ivy covered, now severed. Crown has been previously reduced and 'topped'.	Fair	Fair	20 to 40 yrs	Moderate	**C**	No works required
T4	Holly	*Ilex aquifolium*	Early-mature	8	1	220	No	1.5	2.5	3.5	3.5	3	No visual defects	Single stemmed. Slight lean. Old pruning wounds. Moderate cavity. Minor decay	Minor deadwood	Moderate cavity with minor decay to north eastern side of main stem at base but healing well. Variegated.	Good	Fair	20 to 40 yrs	Moderate	**C**	No works required
T5	Portuguese Laurel	*Prunus lusitanica*	Mature	7.5	2	300, 310	No	1.5	5	3	4.5	4	Exposed roots	Twin stemmed at base. Old pruning wounds. Stubs. Bark damage. Minor decay	Old pruning wounds. Minor deadwood		Fair	Fair	20 to 40 yrs	Moderate	**C**	No works required
G6	Cypress	*Cupressus sp.*	Young	2.5	10+	60	No	1	See plan				No visual defects	Single and Mul iple stemmed	Minor deadwood	Managed boundary hedge	Fair	Good	20 to 40 yrs	Moderate	**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 Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T7	Lime	*Tilia sp.*	Early-mature	17	1	530	No	2	4	5	2	2	Soil compaction	Single stemmed. Twin stemmed at 3m. Slight lean. Epicormic growths. Old pruning wounds	Minor deadwood	Large epicormic growths at base have been removed leaving large wounds. Occasional old pruning wound to stem.	Fair	Fair	20 to 40 yrs	Moderate	**B**	No works required
T8	Ash	*Fraxinus ornus*	Mature	16	3	400, 490, 500	No	6	6	4	6	7	Soil compaction. Exposed roots. Girdled root	Single stemmed. Mul iple stemmed at 1.5m. Vertical. Major cavities. Major decay. Epicormic growths. Old pruning wounds	Minor deadwood. Snapped/ hanging branches	Grafted at 1.5m. Numerous moderate to large decayed cavities at 1.5m to 3m, which likely coalesce. Epicormic growths at base have been recently pruned. Occasional old pruning wound and snapout in crown. Nails in stem. Crown appears in good condition.	Fair	Fair	10 to 20 yrs	Moderate	**C**	Recommended to reduce crown by 2m regardless of development, pruning to suitable points
G9	Pyracantha	*Pyracantha sp.*	Semi-mature	3	10+	40	Yes	1	See plan				Limited access around base	Single and Mul iple stemmed	Minor deadwood	Adjacent, no access	Fair	Fair	20 to 40 yrs	Moderate	**C**	No works required
T10	Lawson Cypress/ Chamaecyparis	*Chamaecyparis lawsoniana*	Semi-mature	15	1	300	Yes	1	2.5	2.5	2.5	2.5	Limited access around base	Single stemmed. Vertical	Normal	Adjacent, no access	Good	Good	20 to 40 yrs	Moderate	**C**	No works required

	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*
T11	Yew	*Taxus baccata*	Early-mature	10	1	450	No	2	2.5	3	2.5	2	No visual defects	Single stemmed. Mul iple stemmed at 1.5m. Slight lean. Old pruning wounds. Stubs. Epicormic growths. Bark damage. Tight unions	Minor deadwood	Dense epicormic growths to main stem prevented detailed inspec ion and accurate stem measurement. Numerous old pruning wounds to main stem from crown lifting works. In bed surrounded by low walls.	Fair	Fair	20 to 40 yrs	Moderate	**C**	Removal required to facilitate development
T12	Holly	*Ilex aquifolium*	Early-mature	10	2	260, 300	No	2.5	3	1.5	3.5	2.5	No visual defects	Twin stemmed at base. Slight lean. Old pruning wounds. Bark damage. Moderate cavity. Minor decay	Minor deadwood	Long cavity with minor decay to eastern stem. Numerous old pruning wounds to main stem from crown lifting works. In bed surrounded by low walls.	Fair	Fair	20 to 40 yrs	Moderate	**C**	Removal required to facilitate development
T13	Holly	*Ilex aquifolium*	Semi-mature	10	1	210	No	3	2.5	2	1	1.5	No visual defects	Single stemmed. Twin stemmed at 2m. Vertical. Stubs. Old pruning wounds	Minor deadwood	Numerous old pruning wounds to main stem from crown lifting works. In bed surrounded by low walls. Variegated.	Fair	Good	20 to 40 yrs	Low	**C**	Removal required to facilitate development
T14	Holly	*Ilex aquifolium*	Semi-mature	10	1	210	No	3	1	1.5	1.5	1.5	No visual defects	Single stemmed. Vertical	Minor deadwood	Numerous old pruning wounds to main stem from crown lifting works. In bed surrounded by low walls.	Good	Good	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 Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T15	Cedar	*Cedrus deodara*	Early-mature	14	1	340	No	1.5	3	3.5	3	3.5	Exposed roots	Single stemmed. Vertical	Normal		Good	Good	>40 yrs	Moderate	**B**	No works required
T16	Oak	*Quercus petraea*	Mature	20	1	780	No	4	5	7	8	6	Increase in soil level	Single stemmed. Vertical. Old pruning wounds. Bark damage	Minor deadwood	Soil piled around main stem at base. Light fixture attached to main stem. Moderate old pruning wound to northern side of main stem at 6m, but healing well.	Good	Good	>40 yrs	Moderate	**A**	Recommended to carefully remove the excess soil piled around the tree's main stem
T17	Monkey Puzzle	*Araucaria araucana*	Early-mature	10	1	320	No	3	3.5	3.5	3.5	2.5	Exposed roots	Single stemmed. Vertical. Old pruning wounds. Stubs	Normal	Bird box attached to stem	Good	Good	>40 yrs	Moderate	**B**	No works required
T18	Laburnum	*Laburnum anagyroides*	Early-mature	8	1	320	No	5	2	4	5	5.5	No visual defects	Single stemmed. Slight lean	Minor deadwood. Ivy covered	Ivy prevented detailed inspec ion	Fair	Fair	10 to 20 yrs	Low	**C**	No works required
T19	Elder	*Sambucus nigra*	Early-mature	5	2	120, 110	No	3	0.5	0.5	2.5	1	No visual defects	Twin stemmed at 1m. Slight lean. Old pruning wounds. Stubs. Bark damage. Minor cavities. Minor decay	Moderate dieback. Minor deadwood		Fair	Fair	<10 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 Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T20	Spruce	*Picea sp.*	Early-mature	14	1	330	No	1.5	2	3.5	3.5	3	No visual defects	Single stemmed. Twin stemmed at 1 5m. Slight lean. Old pruning wounds. Bark damage	Minor deadwood		Fair	Good	>40 yrs	Moderate	**B**	No works required
T21	Cedar	*Cedrus deodara*	Early-mature	11	1	400	Yes	2	3	3	3	3	Limited access around base	Single stemmed. Mul iple stemmed at 2m. Vertical	Minor deadwood	Adjacent, no access	Fair	Fair	20 to 40 yrs	Moderate	**C**	No works required
T22	Cedar	*Cedrus atlantica* 'Glauca'	Semi-mature	10	1	220	Yes	4	3	3	1.5	2	Limited access around base	Single stemmed. Mul iple stemmed at 2m. Vertical	Minor deadwood	Adjacent, no access	Fair	Fair	20 to 40 yrs	Moderate	**C**	No works required

T1
T2
T3
T4
T5
T7
T8
T10
T11
T12
T13
T14
T15
T16
T17
T18
T19
T20
T21
T22
G6
G9
3.4 m
3.0 m
5.6 m
2.5 m
5.3 m
1.5 m
10.3 m
9.4 m
10.8 m
4.0 m
1.9 m
2.9 m
1.6 m
3.5 m
3.5 m
Adjacent shrubs
Shrubs
Shrubs
Shrubs
Cherry Laurel shrubs 2.5m
Elm 8m
Adjacent shrubs
Adjacent shrubs
Existing hardstanding protects RPA of T2 to T5
Existing brick wall and hardstanding protects RPA of T7 and T8
NORTH
AWA TREE CONSULTANTS
Appendix 4:
Tree Protection Plan
Oakfield, Intake Lane, Barnsley
Ref: AWA3212
BRITISH STANDARD 5837:2012
SCALE: 1:200
PAPER: A3
TREES TO BE RETAINED
TREES FOR REMOVAL
TREE STEM
TREE STEM TO REMOVE
RPA: ROOT PROTECTION AREA
HERAS TREE PROTECTION FENCING
PLASTIC MESH TREE PROTECTION FENCING
INTERLINKED GROUND PROTECT ON BOARDS