TREE CONSULTANTS

ARBORICULTURAL METHOD STATEMENT

to BS 5837:2012 at

Land at,
Sandygate Lane,
Barnsley,
South Yorkshire
S70 3NT

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 3NT

Date: *November 2018*

Reference: *AWA2482/AMS*

Institute of Chartered Foresters
Registered Consultant

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1. Introduction

1.1 Instruction

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

- **Sandygate Lane, Barnsley, S70 3NT.**

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 November 2018, detailed within Appendix 3 of this report.

1.3 Description of Development

1.3.1 It is proposed to build multiple residential dwellings with associated access, landscaping and facilities.

1.3.2 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 Install tree protective fencing

3 Pre-commencement meeting/ confirm fencing is as specified

4 Construction of new development

5 Removal of tree protection

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 Protection	Installing the tree protective fencing 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 protective fencing until completed to the standard specified in this method statement.
3 Site Meeting	Following installation of tree protective fencing, the LPA shall be invited to inspect the fencing, 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 is as specified by taking photographs of the tree protection measures.
4 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.
5 Site Finishing	Removal of tree protective fencing 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 protective fencing.

3. Tree Protection

3.1 Tree Protection Fencing

4.1.1 The protective fencing for this site should be located as shown on the Tree Protection Plan (TPP) at Appendix 4 (as illustrated with a thick purple line).

4.1.2 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.

4.1.3 The tree protective 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.

4.1.4 The protective 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) an adequate level of protection for the trees could be provided by 'Heras' type fencing, of welded mesh panels on rubber or concrete feet.

4.1.5 The 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. 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 (see Appendix 1 for an example).

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.

4.1.7 The site manager must ensure that all personnel are aware of the restrictions that apply to the fenced-off area.

4.1.8 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 Appendix 1 for an example sign).

4.1.9 The protective 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 Drainage and Utilities

4.2.2 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.

4.3 Additional Precautions

4.3.2 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.

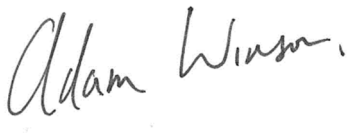
4.3.3 Care must be taken to prevent contamination with chemical spillages, including petrol, diesel and oils. Cement mixers and any other toxic materials should not be permitted within the RPA of the trees. Any materials whose accidental spillage would cause damage to a tree should be stored and handled well away from the outer edge of its RPA.

4.3.4 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.

4. Signature

I trust this report provides all the required information.

Signed



.....

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

29th November 2018

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Appendix 1: Images and Figures

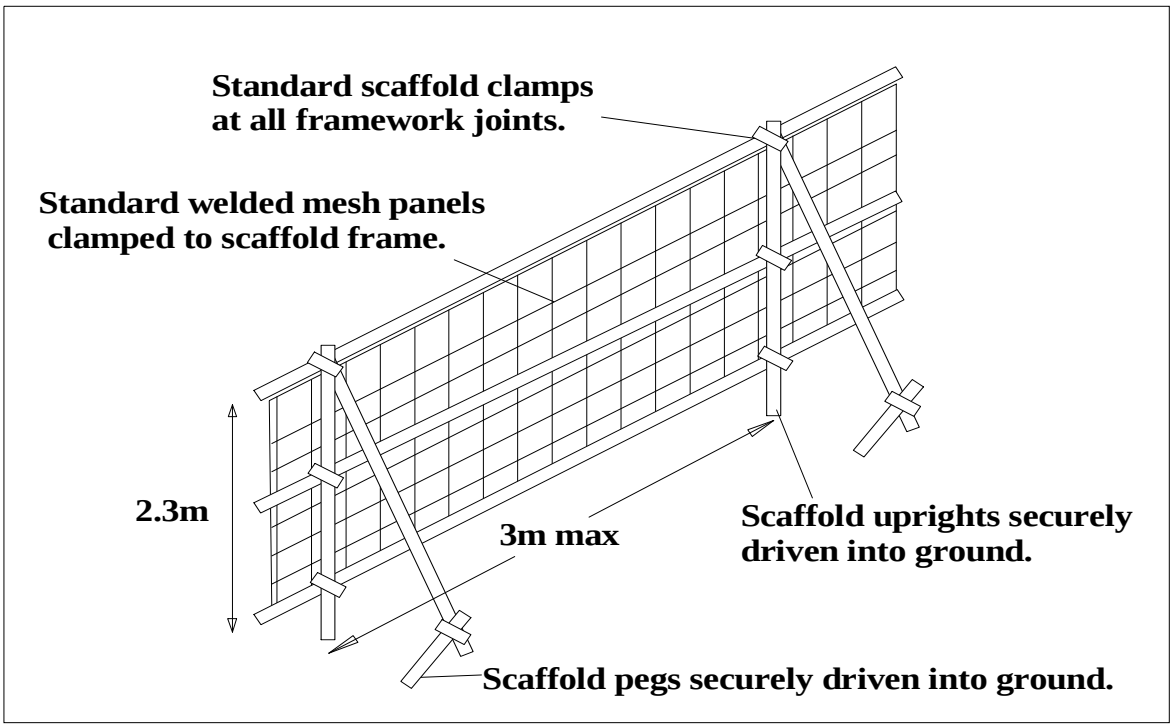


Figure 1: Fencing to BS 5837: 2012



Figure 2: Photo of Fencing to BS 5837: 2012

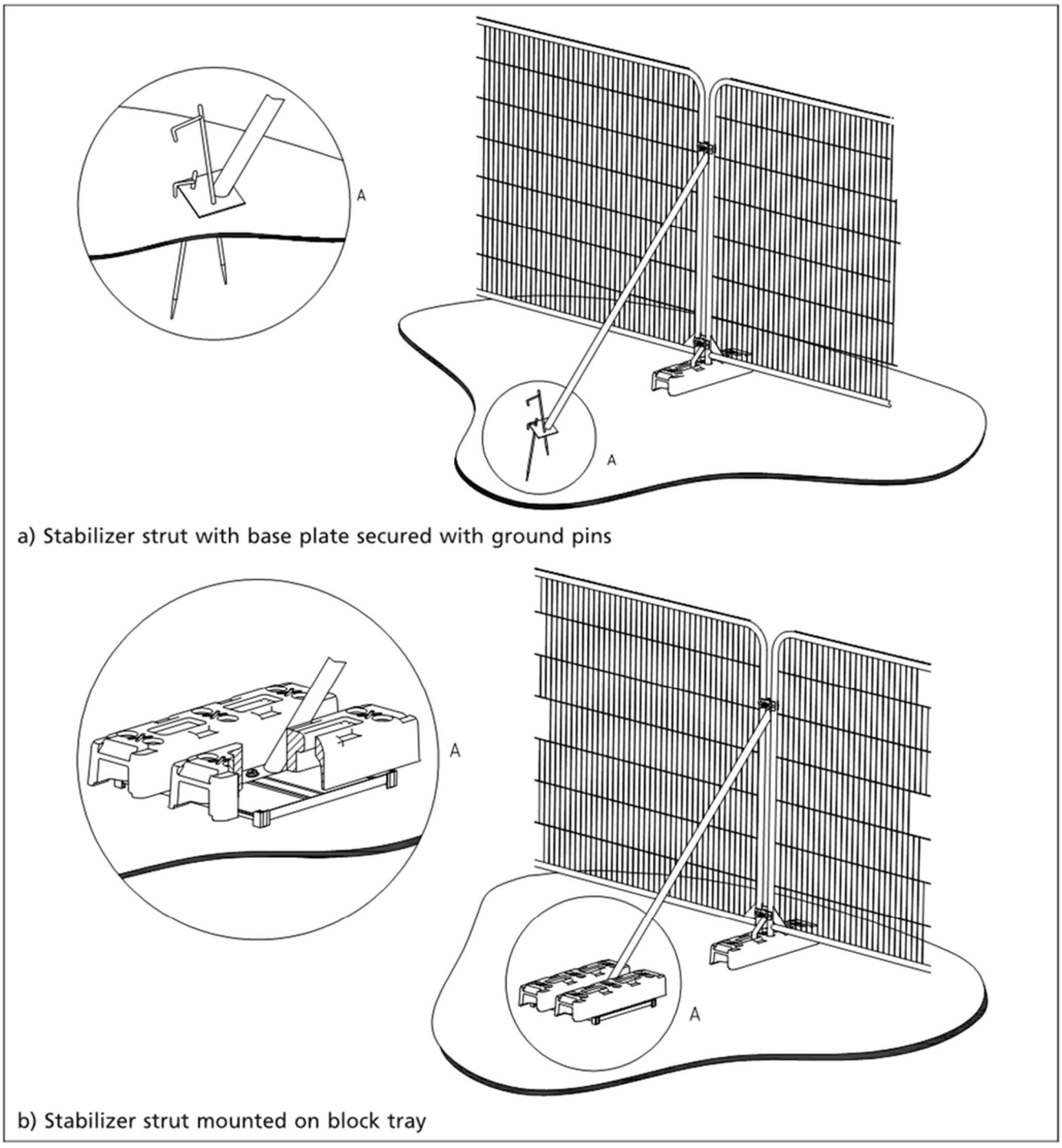


Figure 3: Secured 'Heras' type fencing with stabilizing system and fixed central pins (©BSI)



Figure 4: Example of warning sign for fencing



Figure 5: Secured 'Heras' type fencing with stabilizing system and anti-tamper couplers



Figure 6: Anti-tamper couplers to secure fencing and avoid unauthorised access

Appendix 2: Relevant Contact Details

Contact Name	Organisation/ Details	Contact Number	Contact E-mail
Tom Agus	White Agus Partnership	01226 208 482	thomas@whiteaguspartnership.co.uk
Adam Winson	AWA Tree Consultants Ltd. Arboricultural Consultant	0114 272 1124	adam@awatrees.com
Edward Jowett	Barnsley Development and Management	01226 772 557	EdwardJowett@barnsley.gov.uk

Appendix 3: Tree Data

	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T1	Sycamore	*Acer pseudoplatanus*	Early-mature	14	1	510	No	2	6	7	7	1	No visual defects, Soil compaction	Twin stemmed at 3m, Slight lean, Epicormic growths, Stubs, Old pruning wounds	Unbalanced, Minor deadwood		Good	Fair	>40 yrs	Moderate	**B**	No action required
T2	Sycamore	*Acer pseudoplatanus*	Early-mature	14	1	480	No	2	4.5	2	7	3	No visual defects, Soil compaction	Single stemmed, Vertical, Old pruning wounds, Stubs	Normal, Minor deadwood		Good	Good	>40 yrs	Moderate	**B**	No action required
T3	Poplar	*Populus nigra 'Italica'*	Early-mature	22	1	520	No	12	1.5	1.5	2.5	1.5	No visual defects, Soil compaction	Single stemmed, Vertical, Stubs, Bark damage	Normal, Moderate deadwood	Tall thin form	Good	Fair	20 to 40 yrs	Moderate	**B**	No action required
G4	Birch, Hawthorn, Poplar, Willow	*Betula sp., Crataegus sp., Populus sp., Salix sp.*	Semi-mature	8	10+	130 avg	No	1	See plan				No visual defects, Soil compaction, Soil erosion	Single stemmed & Multiple stemmed, Vertical, Stubs, Tight union	Normal, Minor deadwood	Group of natural regeneration next to footpath. Occasional larger tree within the group.	Good	Fair	>40 yrs	Moderate	**C**	No action required
T5	Hawthorn	*Crataegus monogyna*	Semi-mature	7	3	100, 60, 50	No	1	2	2	2	2	No visual defects, Exposed roots	Twin stemmed at base, Vertical, Stubs, Tight union	Normal		Good	Good	>40 yrs	Low	**C**	No action required
T6	Willow	*Salix caprea*	Semi-mature	9	2	110, 90	No	2.5	2	3.5	2.5	1.5	No visual defects	Twin stemmed at base, Slight lean, Old pruning wounds, Stubs	Unbalanced, Minor deadwood		Fair	Fair	20 to 40 yrs	Low	**C**	No action 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	Birch	*Betula pendula*	Semi-mature	11	1	190	No	3.5	2	2	1.5	2	No visual defects, Soil compaction	Single stemmed, Vertical, Old pruning wounds, Stubs, Bark damage	Normal	Minor bark damage at base of dead stub at 1m.	Good	Good	20 to 40 yrs	Moderate	**C**	No action required
T8	Willow	*Salix caprea*	Semi-mature	12	2	240, 190	No	1	1	1.5	4	7	No visual defects, Soil erosion	Twin stemmed at base, Slight lean, Old pruning wounds, Stubs, Epicormic growths, Bark damage	Unbalanced, Minor dieback, Moderate deadwood	Dense epicormic growth and a dead limb from a previously removed stem at base.	Fair	Fair	20 to 40 yrs	Low	**C**	No action required
G9	Pyracantha, Willow, Birch, Rose	*Pyracantha sp., Salix sp., Betula sp., Rosa sp.*	Semi-mature	4	10+	50 avg	No	0	See plan				No visual defects, Limited access around base	Multiple stemmed at base, Stubs	Normal, Old pruning wounds	Dense group of shrubs between footpath and retaining wall to west. Dense bramble and ivy.	Fair	Fair	20 to 40 yrs	Low	**C**	No action required
T10	Willow	*Salix caprea*	Early-mature	11	4	410, 210, 380, 280	No	1.5	6.5	6	6.5	5	No visual defects	Multiple stemmed at base, Vertical, Old pruning wounds, Epicormic growths, Stubs, Bark damage	Normal, Moderate deadwood	Small hawthorn growing at base.	Good	Fair	20 to 40 yrs	Moderate	**C**	No action required
G11	Snowberry	*Symphoricarpos sp.*	Semi-mature	4	10+	50 avg	No	0	See plan				No visual defects, Limited access around base	Multiple stemmed at base, Stubs	Normal, Old pruning wounds	Dense group of shrubs between footpath and retaining wall to west.	Fair	Fair	20 to 40 yrs	Low	**C**	No action required
T12	Willow	*Salix caprea*	Early-mature	10	10+	110 avg	No	1	4.5	5.5	5.5	3	No visual defects	Multiple stemmed at base, Vertical, Old pruning wounds, Epicormic growths, Stubs, Bark damage	Normal, Moderate deadwood	Small hawthorn growing at base.	Good	Fair	20 to 40 yrs	Moderate	**C**	No action required
G13	Snowberry	*Symphoricarpos sp.*	Semi-mature	4	10+	50 avg	No	0	See plan				No visual defects, Limited access around base	Multiple stemmed at base, Stubs	Normal, Old pruning wounds	Dense group of shrubs between footpath and retaining wall to west.	Fair	Fair	20 to 40 yrs	Low	**C**	No action required

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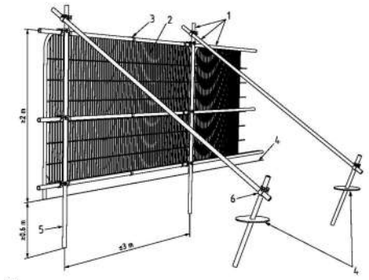
	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G14	Sycamore	*Acer pseudoplatanus*	Semi-mature	11	8	140 avg	No	2.5	See plan				No visual defects, Limited access around base	Single stemmed, Vertical, Tight union	Normal	Linear group growing from base of retaining wall.	Good	Good	20 to 40 yrs	Moderate	**C**	No action required
T15	Hawthorn	*Crataegus monogyna*	Semi-mature	4	2	90, 90	No	1	1.5	1.5	1.5	1.5	Soil erosion, Ground level changes, Root damage /loss	Twin stemmed at 0.5m, Vertical, Epicormic growths, Ivy covered, Tight union	Normal	Insignificant shrub. Minor root damage from recent excavations near base.	Fair	Fair	20 to 40 yrs	Low	**C**	No action required
T16	Willow	*Salix caprea*	Semi-mature	6.5	4	140, 210, 180, 220	No	2	3.5	5	4	2.5	No visual defects	Multiple stemmed at base, Vertical, Old pruning wounds, Stubs, Bark damage, Ivy covered	Normal, Minor deadwood	Growing close to top of steep bank.	Fair	Fair	20 to 40 yrs	Low	**C**	No action required
T17	Hawthorn	*Crataegus monogyna*	Semi-mature	3.5	3	90, 70, 60	No	1	2	2	2	2.5	No visual defects, Soil erosion	Multiple stemmed at 0.5m, Vertical, Ivy covered, Tight union	Normal	Growing at top of steep bank.	Good	Fair	>40 yrs	Low	**C**	No action required
T18	Sycamore	*Acer pseudoplatanus*	Semi-mature	10	1	130	No	2.5	1.5	1.5	1.5	1.5	No visual defects, Soil erosion	Single stemmed, Vertical	Small / sparse	Growing on steep bank.	Good	Fair	>40 yrs	Low	**C**	No action required
T19	Hawthorn	*Crataegus monogyna*	Semi-mature	3.5	3	90, 60, 80	No	1	2	2	1	1.5	No visual defects, Soil erosion	Multiple stemmed at 0.5m, Vertical, Ivy covered, Tight union	Normal	Growing at top of steep bank.	Good	Fair	>40 yrs	Low	**C**	No action required
T20	Willow	*Salix caprea*	Early-mature	8.5	1	120	No	2	2.5	2	4	3.5	No visual defects	Multiple stemmed at 1m, Vertical, Epicormic growths, Old pruning wounds, Stubs, Ivy covered	Normal, Minor deadwood	Growing close to top of steep bank	Fair	Fair	20 to 40 yrs	Moderate	**C**	No action 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*
T21	Hawthorn	*Crataegus monogyna*	Semi-mature	4.5	1	110	No	1	2	3	1	0.5	No visual defects	Single stemmed, Significant lean, Ivy covered, Tight union	Unbalanced	Growing at top of steep bank.	Fair	Fair	>40 yrs	Low	**C**	No action required
T22	Hawthorn	*Crataegus monogyna*	Semi-mature	5	2	100, 70	No	1.5	1.5	1.5	1	1	No visual defects	Twin stemmed at 1m, Vertical, Ivy covered, Tight union	Normal	Growing at top of steep bank.	Good	Fair	>40 yrs	Low	**C**	No action required
T23	Ash	*Fraxinus excelsior*	Semi-mature	7	1	100	No	2	1	1.5	2	2	No visual defects, Soil erosion	Single stemmed, Vertical	Normal	Growing at top of steep bank.	Good	Fair	>40 yrs	Low	**C**	No action required
T24	Hawthorn	*Crataegus monogyna*	Semi-mature	5	2	110, 90	No	1.5	1.5	1.5	1	1	No visual defects	Twin stemmed at 1m, Vertical, Ivy covered, Tight union	Normal	Growing at top of steep bank.	Good	Fair	>40 yrs	Low	**C**	No action required
T25	Hawthorn	*Crataegus monogyna*	Semi-mature	5.5	1	130	No	1.5	2	1.5	1	2	No visual defects, Soil erosion	Twin stemmed at 2.5m, Vertical, Stubs, Ivy covered	Normal	Growing at top of steep bank.	Fair	Fair	>40 yrs	Low	**C**	No action required
T26	Ash	*Fraxinus excelsior*	Semi-mature	9	1	140	No	2	2	2.5	2.5	2.5	No visual defects, Soil erosion	Single stemmed, Vertical, Ivy covered	Normal	Growing at top of steep bank.	Good	Good	>40 yrs	Low	**C**	No action required

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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*
G27	Hawthorn	*Crataegus monogyna*	Semi-mature	5	10+	80 avg	No	1	See plan				No visual defects, Soil erosion	Multiple stemmed, Vertical, Stubs, Tight union	Normal	Sparse trees surrounded by dense brambles and smaller shrubs.	Fair	Fair	>40 yrs	Low	**C**	No action required
T28	Sycamore	*Acer pseudoplatanus*	Early-mature	13	1	340	No	1.5	4	4	1	3.5	No visual defects, Soil erosion	Single stemmed, Vertical, Old pruning wounds, Stubs, Epicormic growths, Ivy covered	Normal, Minor deadwood	Growing on steep bank.	Good	Fair	>40 yrs	Moderate	**B**	No action required
T29	Sycamore	*Acer pseudoplatanus*	Semi-mature	12	1	280	No	2	1.5	4	4	3	No visual defects, Soil erosion	Single stemmed, Vertical, Ivy covered	Normal, Minor deadwood	Growing on steep bank.	Good	Fair	>40 yrs	Moderate	**C**	No action required
T30	Sycamore	*Acer pseudoplatanus*	Semi-mature	11	1	180	No	2.5	2.5	0.5	1.5	3.5	No visual defects, Soil erosion, Exposed roots	Single stemmed, Slight lean, Stubs, Ivy covered	Unbalanced	Growing on steep bank.	Fair	Fair	>40 yrs	Moderate	**C**	No action required
T31	Hawthorn	*Crataegus monogyna*	Semi-mature	6	1	120	No	1	2.5	1.5	1	2	No visual defects, Soil erosion	Multiple stemmed at 2m, Vertical, Ivy covered, Tight union	Unbalanced, Minor deadwood	Growing on steep bank.	Fair	Fair	>40 yrs	Low	**C**	No action required
T32	Ash	*Fraxinus excelsior*	Semi-mature	9.5	1	240	No	2.5	2.5	2	4	3	No visual defects, Soil erosion	Single stemmed, Slight lean, Ivy covered, Tight union	Normal, Minor deadwood	Dense ivy preventing detailed inspection. Growing at base of steep bank.	Fair	Fair	20 to 40 yrs	Moderate	**C**	No action required

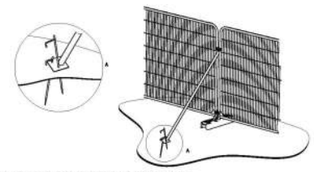
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Inset 1: Examples of Tree Protection Fencing

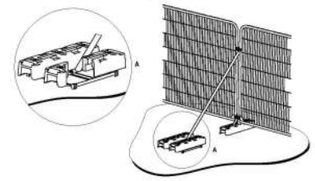


Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

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Appendix 4:
TREE PROTECTION PLAN

Sandygate Lane
Ref: AWA/AMS

BRITISH STANDARD 5837:2012
SCALE :1:500 PAPER: A3

	TREES TO BE RETAINED
	TREES FOR REMOVAL
	SHRUBS TO BE RETAINED
	TREE STEM
	TREE STEM TO REMOVE
	TREE PROTECTION FENCING
	RPA: ROOT PROTECTION AREA