



ARBORICULTURAL METHOD STATEMENT

To BS 5837:2012 at:

***Pine Lodge,
Stainborough Lane,
Hood Green,
Barnsley,
South Yorkshire
S75 3EZ***

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:
Mr David Green

Date: *October 2022*

AWA Ref: 4276AMS

 Institute of
Chartered Foresters
Registered Consultant

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1. Introduction

1.1 Instruction

1.1.1 We are instructed by Mr David Green to prepare an arboricultural method statement for the proposed development at:

- ***Pine Lodge, Stainborough Lane, Hood Green, Barnsley***

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 2019 detailed within Appendix 4 of this report.

1.3 Description of Development

1.3.1 It is proposed to demolish the existing property, build a new residential access with associated landscaping and facilities and widen the existing driveway.

1.3.2 The development proposals have been provided by my client and inform this arboricultural impact assessment and the Tree Protection Plan at Appendix 5.

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 pruning and removals
- 3 Install protective fencing
- 4 Meeting to confirm fencing is as specified
- 5 Demolition and removal of existing building
- 6 Construction of new building, hard surfaces and associated landscaping
- 7 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 Work	Tree removals and pruning shall be carried out as the first operation on site, in accordance with Appendix 4 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 Protective Fencing	Installing the tree protective measures will take place prior to any storage of plant, materials and machinery. As shown at Appendix 5.	If necessary, liaise with the contractor installing the protective fencing until completed to the standard specified in this method statement.
4 Site Meeting	Following installation of Tree Protection 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, and tree works are as specified by taking photographs of the tree protection measures.
5 Demolition	Undertake the demolition of the existing building undertaken inwards within the footprint of the existing building ("top down, pull back").	Tree T45 is within close proximity to the structure to be demolished, the demolition should be carried out under arboricultural supervision and a written record kept at Appendix 3.
6 Construction	Undertake the construction of the new development including 'no-dig' hard surfaces.	Provide ongoing arboricultural advice and supervision of contractors. Installation of 'no-dig' within RPAs should be carried out under arboricultural supervision and a written record kept at Appendix 3. If necessary, liaise with the local authority and the site foreman to ensure any issues are adequately resolved.
7 Site Finishing	Removal of tree protection measures 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 Management

3.1 Tree Works

- 3.1.1 The trees that require removal to facilitate the development are G8, G10, G14, T19, G20 and T46 (highlighted in red on the attached Tree Plan).
- 3.1.2 The landscaping includes the removal of 33 trees/tree groups. The trees to be removed are T2, T4, T6, T9, T11, G12, T16, T17, T18, G23, T24, T25, T26, T29, T30, T31, G33, T34, T35, T36, T37, T38, G39, T40, T41, T42, T43, G44 (thin group G44 by 50%), T48, T49, T51, G52, and G59 (highlighted in red on the attached Tree Plan)
- 3.1.3 The trees detailed for removal are detailed in Appendix 4 and highlighted in red in Appendices 5.
- 3.1.4 Hawthorn hedge groups make up much of the site boundaries (G12, G15, G21 and G47). These previously managed hedgerows have become overgrown and unkempt. It is recommended they are brought back into management, via pruning or 'laying'.
- 3.1.5 The Oak T45 is recommended to be crown lifted over the drive to 3.5m from ground level and lift the remaining crown to <3.5m to create a balanced form.
- 3.1.6 The retained trees within Pine group G44 is to be pruned to improve views from the proposed development by undertaking a crown lift of each tree within the group to an approximate height of 14m.
- 3.1.7 All tree work should be carried out according to British Standard 3998:2010 *Tree Work - Recommendations*.
- 3.1.8 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 Fencing

- 4.1.1 The protective fencing for the site, should be located as shown on the Tree Protection Plan (TPP) at Appendix 5.
- 4.1.1 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.
- 4.1.2 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.
- 4.1.3 The protective fencing will be appropriate to the degree and proximity of likely construction works. In this instance, 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. 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.
- 4.1.4 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).
- 4.1.5 For the lower value trees and hedges more remote from the development works, tree protection can be provided by heavy duty plastic mesh fencing secured to steel pins (as detailed by a thick orange line on the attached Tree Protection Plan).
- 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 within the CEZ unless specified in 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 Appendix 1 for an example sign).
- 4.1.8 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.

4.2 Demolition

- 4.2.1 The demolition of the existing building at the site will take place within the RPA of the retained tree T45. The demolition works within the RPA should not adversely impact on the health or future condition of the tree provided it is carried out in accordance with the specifications below.
- 4.2.2 All plant and vehicles engaged in demolition works should operate outside the trees' RPA. The demolition should be undertaken inwards within the footprint of the existing building (often referred to as "top down, pull back").
- 4.2.3 The demolition of the building should be carried out under arboricultural supervision and a written record kept at Appendix 3.
- 4.2.4 The advice of the project arboriculturist should be sought where underground structures present within the RPA are, or will become, redundant. In general, it is preferable to leave such structures in situ, as their removal could damage adjacent tree roots.
- 4.2.5 Where an existing hard surface is scheduled for removal, care should be taken not to disturb tree roots that might be present beneath it. Hand-held tools or appropriate machinery should be used to remove the existing surface, working backwards over the area, so that the machine is not moving over the exposed ground. If a new hard surface is to be laid, it might be preferable to leave any existing sub-base in situ, augmenting it where required.

4.3 Construction of Hard Surfaces

- 4.3.1 New hard surfaces, in the form of a wider drive are proposed within the RPA of the retained trees G45 and T55.
- 4.3.2 The works within the RPA should not adversely impact on the health or future condition of the trees provided a **no-dig** method of construction is utilised in accordance with the specifications given below.
- 4.3.3 The design and construction of the hard surfaces needs to be sensitive to the requirements of tree roots, substantial enough to withstand the expected levels of traffic and practicable in terms of ease of fabrication.
- 4.3.4 The finished surface must be porous in order to allow air and water to reach the tree roots, whilst at the same time being able to withstand the load applied. Toxic substances which could leach into the ground must be avoided. Severance of roots and soil compaction should be avoided. Any minor excavations in these areas to remove the existing surface vegetation/turf layer must be done so using hand tools only and under Arboricultural supervision.
- 4.3.5 We are not qualified to recommend any particular construction method in terms of durability or structural integrity and any proposed construction should be approved by a qualified structural engineer prior to implementation. Appropriate sub-base options for new hard surfacing include three-dimensional cellular confinement system, such as those provided by Geosynthetics Limited (<http://www.geosyn.co.uk>).
- 4.3.6 The installation of the 'no-dig' hard surfaces within the retained trees RPA must be done under arboricultural supervision, with a written record kept at appendix 3.

4.4 Drainage and Utilities

- 4.4.1 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.

4.5 Additional Precautions

- 4.5.1 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.
- 4.5.2 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.
- 4.5.3 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



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Adam Winson,

Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM.

20th October 2022

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Appendix 1: Images and Figures

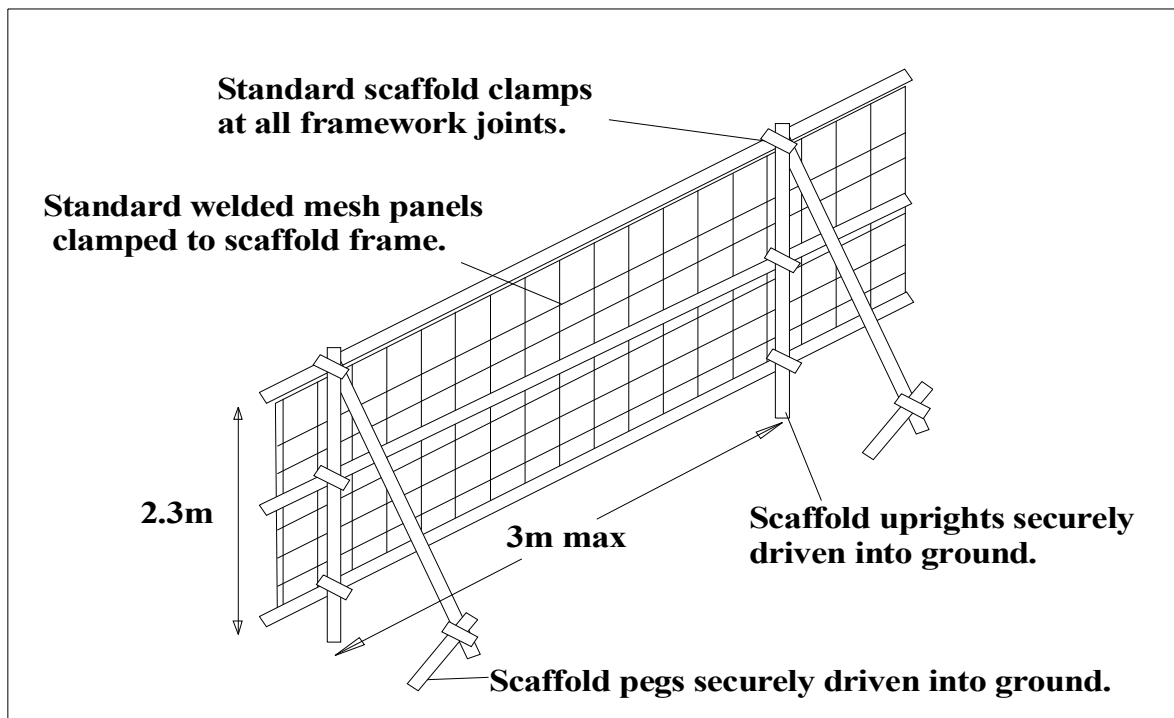


Figure 1: 'Fencing to BS 5837: 2012'.



Figure 2: 'Photo of Fencing to BS 5837: 2012'.

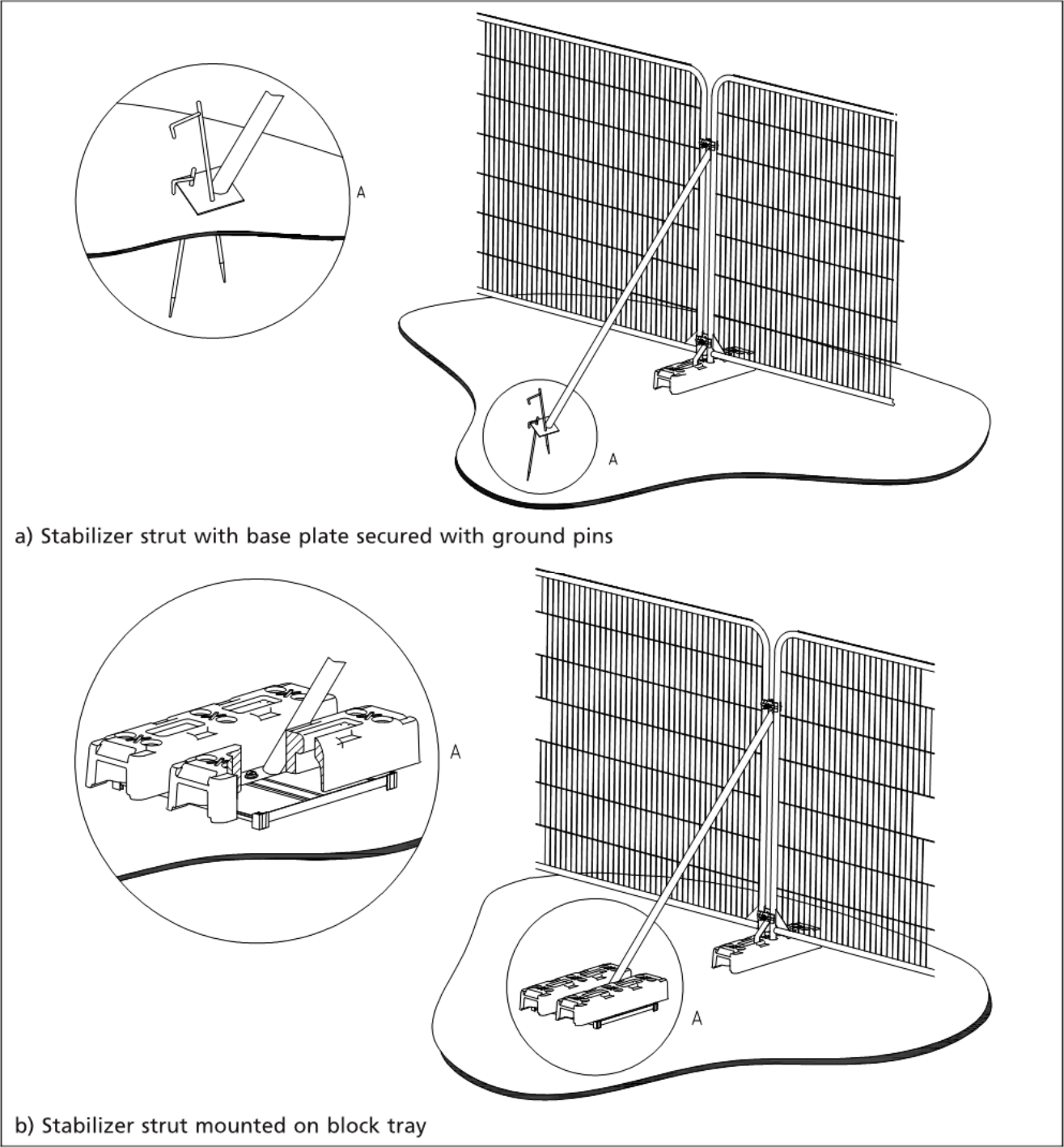


Figure 3: Secured 'Heras' type fencing with stabilizing system and fixed central pins (©BSI).



Figure 4: Secured 'Heras' type fencing with stabilizing system and anti-tamper couplers



Figure 5: Anti-tamper couplers to secure fencing and avoid unauthorised access.



Figure 6: Warning Signs for Fencing.

Appendix 2: Relevant Contact Details

Contact Name	Organisation/Details	Contact Number	Contact E-mail
Edward Jowett	Barnsley Tree Officer Development Management	01226 772557	Edward.Jowett@barnsley.gov.uk
Adam Winson	AWA Tree Consultants Ltd. Arboricultural Consultant	0114 272 1124	adam@awatrees.com

Appendix 3: Record of Arboricultural Supervision

Required Site Visits	
Name of Site Inspector/ Arboricultural Consultant	
Supervision Stages	Comments/Required Actions
Site visit 1: Inspect the fencing prior to any works. Confirm tree protection completed to the standard specified in this method statement.	Signed and Dated
Site visit 2: Supervision of contractors during demolition of building close to tree T45	Signed and Dated
Site visit 3: Supervision of contractors construction of hard-surfaces adjacent to retained trees.	Signed and Dated
Site visits - Monthly: Supervise any other sensitive operations, if required, as they arise in relation to trees.	Signed and Dated
Additional comments/required actions:	

Additional Comments / Required Actions:

Signed and Dated

Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T1	Pine	<i>Pinus sylvestris</i>	Mature	28	1	910	No	10	5	5.5	6.5	5	No visual defects	Single stemmed, Vertical, Stubs	Snapped /hanging branches, Minor deadwood	Occasional snapped branch characteristic of species/age.	Good	Good	>40 yrs	Moderate/ High	B	No action required
T2	Poplar	<i>Populus x canadensis</i>	Semi-mature	15	1	380	No	3.5	4	2.5	0.5	4.5	No visual defects	Single stemmed, Slight lean, Stubs, Epicormic growths	Unbalanced, Minor deadwood	Southern aspect suppressed by adjacent Cypress and Pine.	Fair	Good	>40 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T3	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	5.5	4	170 100 130 150	No	2	2.5	1	1.5	1.5	No visual defects	Multiple stemmed at base, Slight lean, Stubs, Old pruning wounds, Epicormic growths, Tight union	Minor deadwood	Two tree stems forming single canopy.	Fair	Fair	20 to 40 yrs	Low	C	No action required
T4	Poplar	<i>Populus x canadensis</i>	Early-mature	16	1	390	No	4.5	3	2.5	3	1.5	No visual defects	Single stemmed, Slight lean, Stubs, Old pruning wounds, Epicormic growths	Small / sparse, Minor deadwood, Snapped /hanging branches		Fair	Fair	20 to 40 yrs	Moderate	C	Felling as part of general thinning management /landscaping across site
T5	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	5.5	3	140 140 90	No	1	2.5	3.5	1.5	1.5	No visual defects	Multiple stemmed at 0.5m, Significant lean, Stubs, Epicormic growths, Tight union, Partially included bark	Slightly unbalanced, Minor deadwood		Fair	Fair	20 to 40 yrs	Low	C	No action 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
T6	Ash	Fraxinus excelsior	Early-mature	17	3	370 380 300	No	2.5	3	5	6	6	No visual defects	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Cup-like union collecting dirt/water, Partially included bark, Tight union, Bark damage	Snapped /hanging branches, Minor deadwood	High proportion of minor deadwood and snapped branches.	Fair	Fair	20 to 40 yrs	Moderate	C	Felling as part of general thinning management /landscaping across site
T7	Hawthorn	Crataegus monogyna	Semi-mature	2.5	2	160 130	Yes	0.5	0.5	1	3	1.5	Soil heave, Root damage /loss	Multiple stemmed at base, Significant lean, Stubs, Minor decay	Small / sparse, Minor deadwood	Partially failed at base and now resting on ground. Very limited long-term value.	Poor	Poor	<10 yrs	Low	C	No action required
G8	Leyland Cypress	X Cupressocyparis leylandii	Early-mature	13	10+	260 avg	No	1	See Plan				No visual defects	Single stemmed, Vertical, Stubs, Old pruning wounds, Tight union, Partially included bark, Bark damage	Normal, Minor deadwood	Linear group of trees forming individual hedgerow. Old stake/ties causing bark damage. Multiple snapped limbs in lower crown. Limited long-term value.	Fair	Fair	10 to 20 yrs	Low	C	Removal required to facilitate new 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
T9	Laurel	<i>Prunus laurocerasus</i>	Semi-mature	9	1	260	No	1.5	2.5	1	1.5	2	Exposed roots, Soil heave	Twin stemmed at 2m, Slight lean, Stubs, Old pruning wounds, Bark damage	Low vigour	Individual tree developed from low value shrubby understory group. Major bark wound from base to 2m on eastern aspect. Limited long-term value.	Poor	Poor	10 to 20 yrs	Low	C	Felling as part of general thinning management /landscaping across site
G10	Laurel, Elder, Buddleia, Cypress, Ash	<i>Prunus sp.</i> <i>Buddleia sp.</i> <i>Cupressus sp.</i> <i>Fraxinus sp.</i>	Semi-mature	3.5	10+	70 avg	No	0	See Plan				No visual defects, Limited access around base	Single & Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union	Normal, Minor deadwood	Dense mixed species shrub group. Unmanaged with limited long-term value. Dense bramble throughout.	Fair	Fair	10 to 20 yrs	Low	C	Removal required to facilitate new development
T11	Elder	<i>Sambucas nigra</i>	Semi-mature	4.5	1	130	No	2	1	2.5	2	1	No visual defects	Single stemmed, Slight lean, Epicormic growths, Stubs, Bark damage	Small / sparse, Minor deadwood	Bark damage from failed Elder resting against stem. Limited long-term value.	Poor	Fair	10 to 20 yrs	Low	C	Felling as part of general thinning management /landscaping across site
G12	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	4.5	10+	90 avg	No	0.5	See Plan				No visual defects	Single & Multiple stemmed at base, Vertical, Stubs, Tight union	Old pruning wounds, Minor deadwood	Boundary hedgerow group previously managed at 2m, now developing into individual trees. Occasional Ash sapling. Powerlines running overhead group.	Fair	Fair	>40 yrs	Low	C	Felling as part of general thinning management /landscaping across site

	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
T13	Beech	<i>Fagus sylvatica</i>	Mature	25	1	1330	No	1	6	8	7.5	6	Exposed roots, Soil compaction, No visual defects	Twin stemmed at 3m, Vertical, Stubs, Moderate decay, Minor cavities, Decay fungi, Major historic wounds to westernmost co-dominant stem with visible decay at approx 12m and 14m.	Well developed crown, Minor deadwood, Old pruning wounds, Multiple crossing/fused branches through out canopy.	Situated in adjacent land. Previously failed 3rd order limb to western aspect at 4m has substantial decay with probable Pholidota squares bracket visible to north.	Good	Fair	20 to 40 yrs	High	B	No action required
G14	Leyland Cypress	^X <i>Cupressocyparis leylandii</i>	Early-mature		9	200 avg	No	1	See Plan				No visual defects	Single stemmed, Vertical, Stubs, Old pruning wounds, Tight union, Partially included bark, Bark damage	Normal, Minor deadwood	Linear group of trees forming individual hedgerow. Old stake/ties causing bark damage. Southern aspect encroaching on adjacent building. Limited long-term value.	Fair	Fair	10 to 20 yrs	Low	C	Removal required to facilitate new development
G15	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	4	10+	60 avg	Yes	0	See Plan				No visual defects, Limited access around base	Single & Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Bark damage, Tight union, Partially included bark	Old pruning wounds, Minor deadwood	Boundary hedgerow previously managed at 1.5m now overgrown. Occasional larger tree to south of group. Occasional Elder.	Fair	Fair	20 to 40 yrs	Low	C	No action required - suitable for pruning or 'laying' into dense formal hedge feature

Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T16	Apple	<i>Malus sp.</i>	Semi-mature	3.5	2	160 90	No	1.5	2.5	1.5	1	1.5	Soil erosion, No visual defects	Twin stemmed at 1m, Slight lean, Stubs, Old pruning wounds, Epicormic growths, Minor cavities, Minor decay	Normal, Minor deadwood	Suppressed by adjacent trees. Limited long-term value.	Fair	Fair	20 to 40 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T17	Apple	<i>Malus sp.</i>	Early-mature	7	1	200	No	4	2.5	2	2.5	2	No visual defects	Single stemmed, Vertical, Stubs, Epicormic growths, Tight union, Old pruning wounds	Minor deadwood	Previously topped at 4m.	Fair	Fair	>40 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T18	Apple	<i>Malus sp.</i>	Early-mature	4.5	2	190 220	No	1	2	2.5	3	3	No visual defects	Twin stemmed at 0.5m, Vertical, Stubs, Epicormic growths, Old pruning wounds, Tight union	Normal, Minor deadwood		Fair	Fair	>40 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T19	Apple	<i>Malus sp.</i>	Dead	6	1	330	No	1	2.5	2.5	3.5	4	No visual defects, Limited access around base	Multiple stemmed at 2m, Vertical, Stubs, Bark damage, Tight union, Partially included bark, Moderate decay	All dead / absent	Standing dead tree. Remove regardless of future development.	Dead	Dead	<10 yrs	Dead	U	Remove to ground level regardless of development
G20	Leyland Cypress	^X <i>Cupressocyparis leylandii</i>	Semi-mature	4.5	10+	60 avg	No	0	See Plan				No visual defects, Limited access around base	Single stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union	Small / sparse, Minor deadwood	Dense group of ornamental Cypress. Sparse northern aspect where group has been pruned away from path.	Fair	Fair	10 to 20 yrs	Low	C	Removal required to facilitate new development

Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
G21	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	2.5	10+	80 avg	No	0	See Plan				No visual defects, Limited access around base	Single & Multiple stemmed at base, Vertical, Stubs, Old pruning wounds, Tight union	Old pruning wounds, Minor deadwood	Previously managed hedgerow becoming overgrown. Occasional Ash and Elder saplings.	Fair	Fair	>40 yrs	Low	C	No action required - suitable for pruning or 'laying' into dense formal hedge feature
T22	Sorbus	<i>Sorbus aria</i>	Early-mature	7.5	8	160 avg	No	2	4.5	4	4.5	3	No visual defects	Multiple stemmed at 0.5m, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark, Minor cavities, Minor decay	Normal, Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	C	No action required
G23	Ash	<i>Fraxinus excelsior</i>	Semi-mature	8.5	4	210 160 150 150	No	2	4.5	3.5	3	4	No visual defects, Limited access around base	Single stemmed, Vertical, Twin stemmed, Stubs, Epicormic growths, Tight union, Ivy covered	Normal, Minor deadwood	Group of 3 individual trees forming single canopy. Ivy and dense Laurel at base preventing detailed inspection.	Fair	Fair	>40 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T24	Laurel	<i>Prunus laurocerasus</i>	Early-mature	6	6	200 avg	Yes	0.5	4	4	4	2	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs	Slightly unbalanced, Minor deadwood	Individual tree forming under story to larger adjacent trees.	Fair	Fair	20 to 40 yrs	Low	C	Felling as part of general thinning management /landscaping across site

Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T25	Ash	<i>Fraxinus excelsior</i>	Semi-mature	10	1	180	No	2	3	2	1	3	No visual defects, Limited access around base	Single stemmed, Vertical, Stubs	Normal, Minor deadwood	Southern aspect slightly suppressed by adjacent Cypress.	Fair	Fair	>40 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T26	Leyland Cypress	X <i>Cupressocyparis leylandii</i>	Early-mature	13	4	390 480 230 200	No	2	2.5	3	2.5	2	No visual defects, Limited access around base	Multiple stemmed at 1m, Vertical, Stubs, Tight union, Partially included bark	Normal, Minor deadwood		Good	Fair	20 to 40 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T27	Maple	<i>Acer platanoides</i>	Semi-mature	11	1	260	No	3	4.5	3	2	2.5	No visual defects, Limited access around base	Single stemmed, Vertical, Stubs, Bark damage	Normal, Minor deadwood	Dense Laurel shrubs at base preventing detailed inspection. Minor bark damage from old tie fully occluded by stem.	Fair	Fair	20 to 40 yrs	Moderate	C	No action required
T28	Hawthorn	<i>Crataegus monogyna</i>	Early-mature	7.5	1	200	No	2	1	4.5	3	0.5	No visual defects	Single stemmed, Slight lean, Stubs, Epicormic growths, Ivy covered	Unbalanced, Minor deadwood	Larger tree situated in hedgerow group. Suppressed by adjacent Poplars.	Fair	Fair	20 to 40 yrs	Low	C	No action required
T29	Poplar	<i>Populus x canadensis</i>	Early-mature	10	1	370	No	3	2	6	2	0.5	No visual defects	Single stemmed, Significant lean, Stubs, Epicormic growths	Small / sparse, Unbalanced, Minor deadwood	Situated amongst hedgerow group. Suppressed by larger adjacent Poplar.	Fair	Fair	20 to 40 yrs	Low	C	Felling as part of general thinning management /landscaping across site

	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
T30	Poplar	Populus x canadensis	Mature	15	1	580	No	3.5	4	6	6	8.5	No visual defects	Single stemmed, Slight lean, Stubs, Epicormic growths	Well developed crown, Moderate deadwood		Good	Good	20 to 40 yrs	Moderate	B	Felling as part of general thinning management /landscaping across site
T31	Sycamore	Acer pseudoplatanus	Semi-mature	5.5	1	200	Yes	3	1	1	2	3	No visual defects, Limited access around base	Single stemmed, Vertical, Stubs, Bark damage, Minor cavity, Minor decay	Small / sparse, Minor deadwood	Supressed form. Limited long-term value.	Fair	Fair	10 to 20 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T32	Maple	Acer platanoides	Semi-mature	8.5	1	240	Yes	3	4.5	4	3	4	No visual defects, Limited access around base	Twin stemmed at 2m, Vertical, Stubs, Bark damage, Minor cavity, Minor decay	Small / sparse, Minor deadwood	Dense Laurel shrubs at base preventing detailed inspection. Minor bark damage from old tie fully	Fair	Fair	20 to 40 yrs	Low	C	No action required
G33	Leyland Cypress	X Cupressocyparis leylandii	Mature	15	2	530 500 480	No	1.5	3	4	3	4.5	No visual defects	Single stemmed, Vertical, Stubs, Tight union, Partially included bark	Normal, Minor deadwood	Two trees forming single canopy.	Good	Fair	20 to 40 yrs	Low/Moderate	C	Felling as part of general thinning management /landscaping across site
T34	Sycamore	Acer pseudoplatanus	Semi-mature	8	3	130 160 180	No	3	1	1.5	2.5	2.5	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Ivy covered	Small / sparse, Low vigour, Minor deadwood	Situated on roadside verge. Dense ivy preventing detailed inspection and overcoming crown. Limited long-term value.	Poor	Fair	10 to 20 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T35	Sycamore	Acer pseudoplatanus	Semi-mature	9	5	210 220 140 200 180	No	5	4	2	3	3.5	No visual defects	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Old pruning wounds, Tight union, Partially included bark, Ivy covered	Normal, Minor deadwood		Fair	Poor	10 to 20 yrs	Low	C	Felling as part of general thinning management /landscaping across site

Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T36	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	10	4	210 210 160 150	No	3	3	3.5	3.5	2.5	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Old pruning wounds, Ivy covered, Tight union	Moderate deadwood	Situated on roadside verge.	Fair	Fair	20 to 40 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T37	Maple	<i>Acer campestre</i>	Mature	8	5	420 180 230 220 210	No	2	5	5	3.5	4	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Ivy covered, Minor cavities, Minor decay	Well developed crown, Minor deadwood	Situated on roadside verge.	Good	Fair	>40 yrs	Moderate	C	Felling as part of general thinning management /landscaping across site
T38	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	12	1	440	No	2.5	4	3	3.5	4	No visual defects	Single stemmed, Slight lean, Stubs, Old pruning wounds, Epicormic growths, Tight union, Ivy covered	Minor dieback, Minor deadwood	Situated on roadside verge. Dense ivy preventing detailed inspection.	Fair	Fair	20 to 40 yrs	Moderate	C	Felling as part of general thinning management /landscaping across site
G39	Blackthorn, Hawthorn, Bay, Dog Wood	<i>Prunus sp.</i> <i>Crataegus sp.</i> <i>Laurus sp.</i> <i>Cornus sp.</i>	Semi-mature	5.5	10+	100 avg	Yes	0	See Plan				Limited access around base, Waterlogged	Single & Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark	Old pruning wounds, Minor deadwood	Dense mixed species group of shrubs with occasional larger tree within. Dense bramble throughout preventing detailed inspection.	Fair	Fair	20 to 40 yrs	Low	C	Felling as part of general thinning management /landscaping across site

	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
T40	Apple	Malus sp.	Early-mature	7	3	180 120 160	Yes	1	2.5	3	3	3.5	No visual defects, Limited access around base	Multiple stemmed at 0.5m, Vertical, Stubs, Tight union	Normal, Minor deadwood	Northern aspect slightly suppressed by adjacent Hornbeam. Dense shrubs at base preventing detailed inspection.	Fair	Fair	>40 yrs	Moderate	C	Felling as part of general thinning management /landscaping across site
T41	Hornbeam	Carpinus betulus	Early-mature	11	10+	190 avg	Yes	1.5	4	4	4	4	No visual defects, Limited access around base	Multiple stemmed at 1m, Vertical, Stubs, Tight union	Well developed crown, Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	C	Felling as part of general thinning management /landscaping across site
T42	Leyland Cypress	X Cupressocyparis leylandii 'Haggerston Grey'	Semi-mature	6	1	150	Yes	1	1	1	1	1	No visual defects, Limited access around base	Single stemmed, Vertical, Stubs, Epicormic growths, Tight union	Small / sparse		Fair	Fair	10 to 20 yrs	Low	C	Felling as part of general thinning management /landscaping across site
T43	Bay	Laurus nobilis	Semi-mature	4.5	10+	120 avg	No	1	4	4	1.5	3.5	No visual defects	Multiple stemmed at base, Slight lean, Stubs, Bark damage, Old pruning wounds	Slightly unbalanced, Minor deadwood	Major bark damage with minor decay to northern stems.	Fair	Fair	10 to 20 yrs	Low	C	Felling as part of general thinning management /landscaping across site
G44	Pine	Pinus sylvestris	Mature	27	6	640 avg	No	4	See Plan				No visual defects	Single stemmed, Vertical, Stubs	Moderate deadwood	Group of 6 individual trees forming a single landscape feature	Good	Good	>40 yrs	Moderate / High	B	Thin out by 50% as part of general thinning management /landscaping across site. Crown lift retained trees.

Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T45	Oak	<i>Quercus robur</i>	Mature	18	1	1100	No	1.5	5.5	8	7.5	10	No visual defects	Single stemmed, Vertical, Stubs, Epicormic growths, Pruning wounds - healing well, Bark damage	Well developed crown, Minor deadwood	Significant bark damage from occasional historic branch failure. No visible decay. We have been informed of branch failure since the time of survey.	Good	Good	>40 yrs	Moderate /high	B	Crown lift over drive to 3.5m, and lift remaining to create balanced form. Prune back torn stubs of damaged limbs in line with BS3998.
T46	Willow	<i>Salix chrysocoma</i>	Early-mature	15	1	640	No	0.5	8	7	4.5	5	No visual defects	Single stemmed, Slight lean, Stubs, Epicormic growths, Pruning wounds - healing well, Minor cavities	Minor deadwood, Eastern scaffold limb has hazard beam fracture from 0.3m out from primaru union to 1.5m out - some minor historic decay.	High proportion of minor deadwood in inner/lower crown. Pruning wounds to stem generally occluding well.	Good	Fair	20 to 40 yrs	Moderate	B	Removal required to facilitate new development -new access / wider drive
G47	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	7.5	10+	110 avg	Yes	2	See Plan				No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark, Bark damage, Ivy covered	Old pruning wounds, Minor deadwood	Boundary hedgerow group now overgrown.	Fair	Fair	>40 yrs	Low	C	No action required - suitable for pruning or 'laying' into dense formal hedge feature

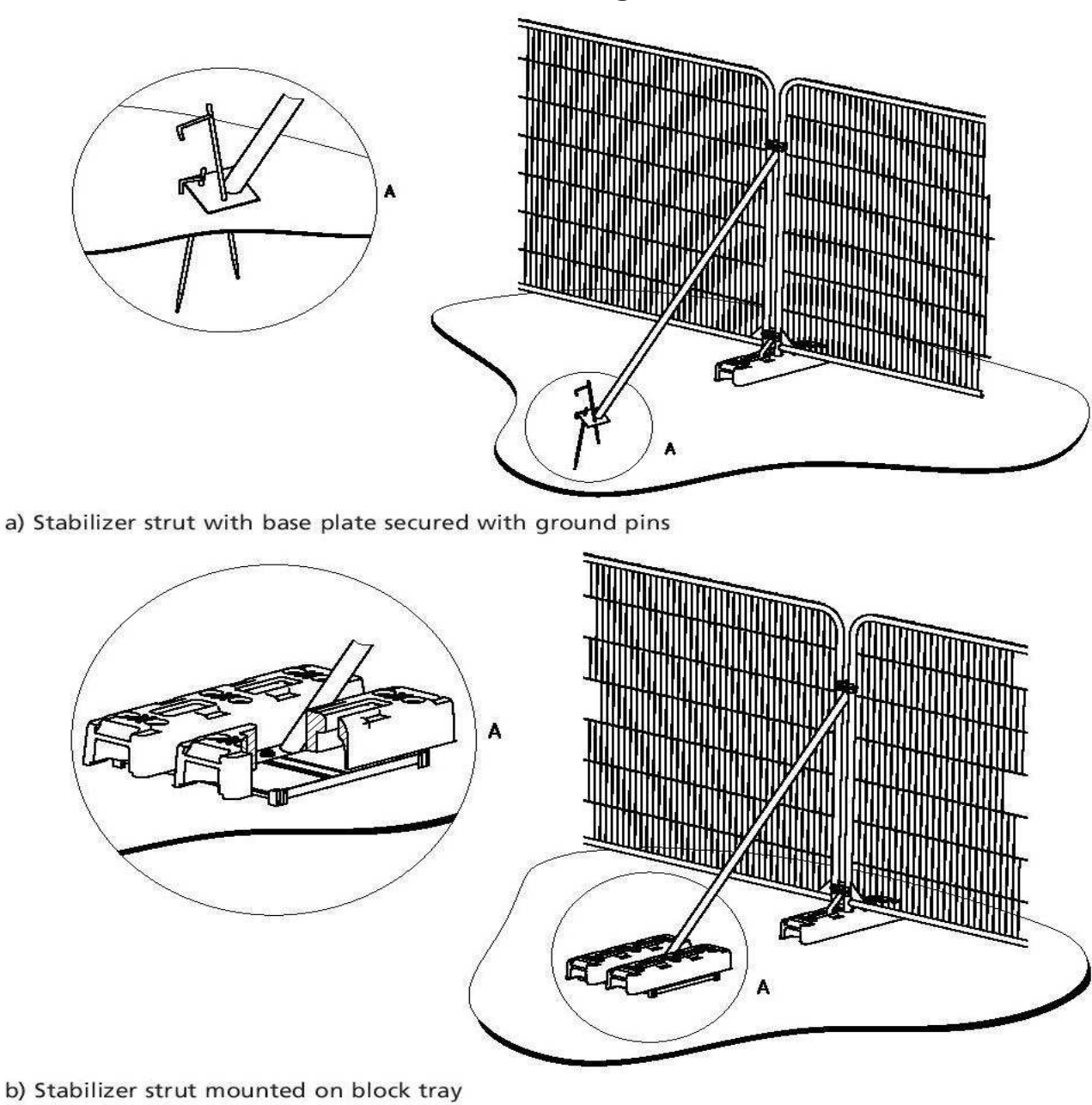
Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T48	Maple	<i>Acer campestre</i>	Early-mature	8	3	310 310 300	No	4.5	4	4	5	4	No visual defects	Multiple stemmed at base, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Partially included bark	Normal, Minor deadwood	Growing against dry stone wall .	Fair	Fair	>40 yrs	Moderate	B	Felling as part of general thinning management /landscaping across site
T49	Ash	<i>Fraxinus excelsior</i>	Semi-mature	11	7	190 avg	No	3.5	3	4.5	5	5	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Old pruning wounds, Ivy covered, Decay fungi, Bark damage, Multiple bark wounds of mechanical damage to stems on roadside	Normal, Minor deadwood	Situated on roadside verge. Multiple Inonotus hispidus brackets to central stem - southern aspect at 2m and 2.5m. Limited long-term value. Consider removal regardless of development due to high target area.	Poor	Fair	10 to 20 yrs	Moderate	C	Removal advised - ascertain ownership / Felling as part of general thinning management /landscaping across site
T50	Pine	<i>Pinus sylvestris</i>	Early-mature	19	1	620	No	4	2	3	2.5	2	No visual defects	Single stemmed, Slight lean, Stubs	Normal, Minor deadwood		Fair	Good	>40 yrs	Moderate	B	No action required
T51	Ash	<i>Fraxinus excelsior</i>	Semi-mature	8	1	180	No	4.5	2	2.5	2	2	No visual defects	Single stemmed, Vertical, Epicormic growths, Stubs	Normal, Minor deadwood		Fair	Fair	>40 yrs	Low	C	Felling as part of general thinning management /landscaping across site

	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
G52	Leyland Cypress	X Cupressocyparis leylandii	Mature	25	3	500 750 750	Yes	0.5	See Plan				No visual defects	Single stemmed, Vertical, Stubs, Tight union, Partially included bark	Minor dieback, Minor deadwood	3 individual trees forming single crown. Dense crown preventing accurate DBH measurements. Lots of fungi at base growing from dense needle matter - not detrimental to tree.	Good	Fair	20 to 40 yrs	Low/ Moderate	C	Felling as part of general thinning management /landscaping across site
T53	Pine	Pinus sylvestris	Mature	20	1	690	No	5	4	8	5	3	No visual defects	Single stemmed, Vertical, Stubs	Unbalanced, Snapped /hanging branches, Minor deadwood		Good	Fair	20 to 40 yrs	Moderate/ High	B	No action required
T54	Pine	Pinus sylvestris	Early-mature	16	1	580	No	4	2.5	3	4.5	3.5	No visual defects	Single stemmed, Vertical, Stubs	Unbalanced, Snapped /hanging branches, Minor deadwood	High proportion of deadwood in lower crown. Suppressed by larger adjacent Pines.	Fair	Fair	20 to 40 yrs	Moderate	B	No action required
T55	Pine	Pinus sylvestris	Mature	25	1	820	No	4	4	5.5	3	2.5	No visual defects	Single stemmed, Vertical, Stubs	Unbalanced, Snapped /hanging branches, Minor deadwood		Good	Good	20 to 40 yrs	Moderate/ High	B	No action required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T56	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	5.5	4	150 130 160 160	No	2	2	3	2.5	3	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark	Normal, Minor deadwood	Smaller saplings at base.	Fair	Fair	>40 yrs	Low	C	No action required
T57	Hawthorn	<i>Crataegus monogyna</i>	Semi-mature	5.5	8	140 avg	No	2.5	3	3	3	2	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark	Normal, Minor deadwood	Smaller saplings at base.	Fair	Fair	>40 yrs	Low	C	No action required
G58	Poplar	<i>Populus x canadensis</i>	Semi-mature	16	10+	200 avg	No	3	See Plan				Limited access around base, Decay	Single stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Partially included bark, Ivy covered, Decay fungi, Bark damage	Normal	Linear boundary group of trees forming single landscape feature. Occasional fungi in crown. Multiple failed stems in northern half of group. Significant decay to several stems in group and extensive signs of Honey Fungus.	Fair	Poor	<10	Low	U	Remove group to prevent further stem failure.

	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
G59	Leyland Cypress	X Cupressocyparis leylandii	Semi-mature	13	10+	250 avg	Yes	1	See Plan				No visual defects, Limited access around base	Single stemmed, Vertical, Stubs, Old pruning wounds, Tight union	Old pruning wounds, Minor dieback, Minor deadwood	Linear group of individual trees forming single hedgerow. Northern half of trees have been crown raised to 3m.	Fair	Fair	>40 yrs	Moderate	C	Felling as part of general thinning management /landscaping across site

Inset 1: Heras Tree Protection Fencing



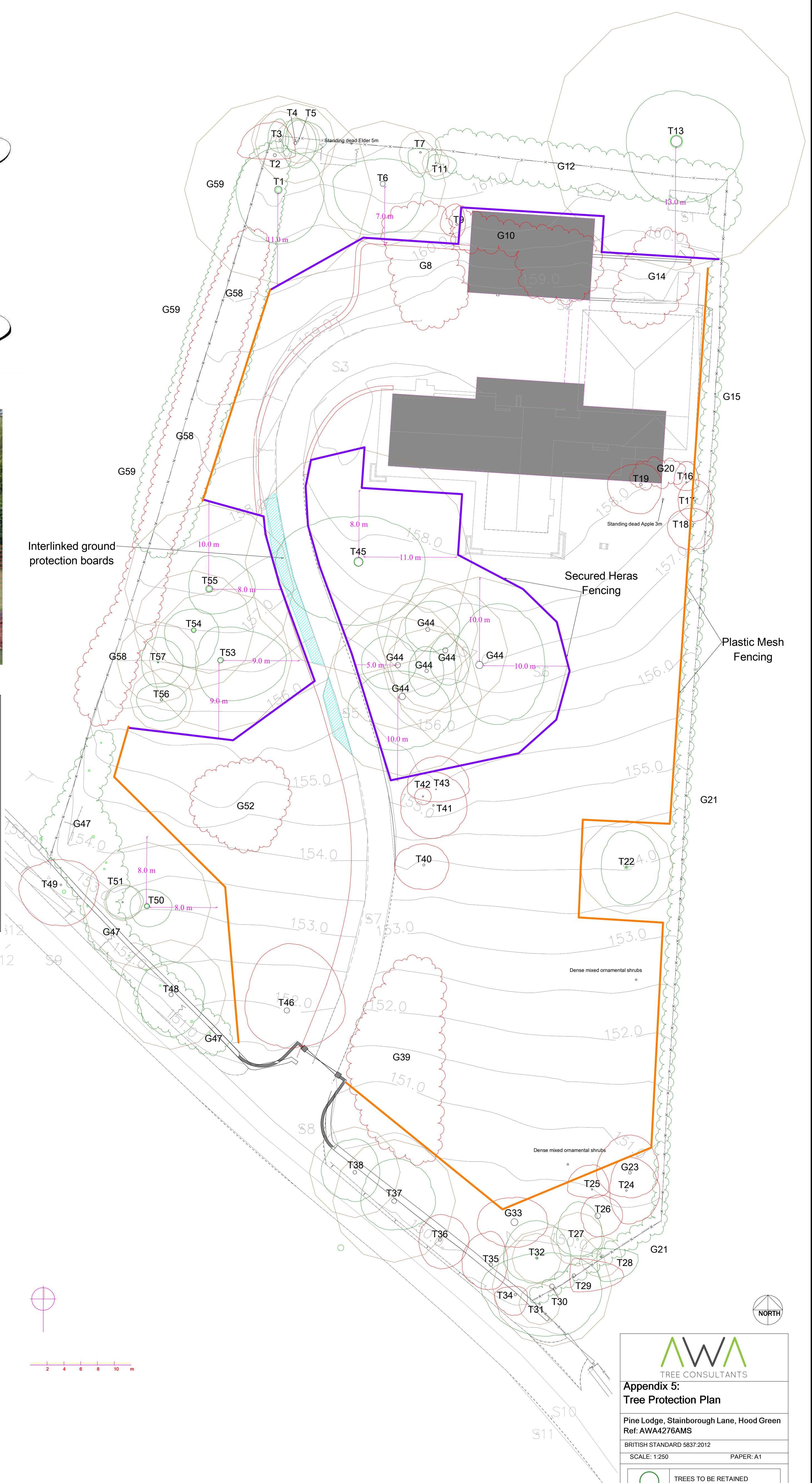
Inset 2: Plastic Mesh Tree Protection Fencing



Inset 3: Tree Protection Fencing Sign



Inset 4: Ground Protection Boards



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 Work	Tree removals and pruning shall be carried out as the first operation on site, in accordance with Appendix 4 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 Protective Fencing	Installing the tree protective measures will take place prior to any storage of plant, materials and machinery. As shown at Appendix 5.	If necessary, liaise with the contractor installing the protective fencing until completed to the standard specified in this method statement.
4 Site Meeting	Following installation of Tree Protection 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, and tree works are as specified by taking photographs of the tree protection measures.
5 Demolition	Undertake the demolition of the existing building undertaken inwards within the footprint of the existing building ("top down, pull back").	Tree T45 is within close proximity to the structure to be demolished, the demolition should be carried out under arboricultural supervision and a written record kept at Appendix 3.
6 Construction	Undertake the construction of the new development including "no-dig" hard surfaces.	Provide ongoing arboricultural advice and supervision of contractors. Installation of "no-dig" within RPAs should be carried out under arboricultural supervision and a written record kept at Appendix 3. If necessary, liaise with the local authority and the site foreman to ensure any issues are adequately resolved.
7 Site Finishing	Removal of tree protection measures 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.

AWA
TREE CONSULTANTS

Appendix 5:
Tree Protection Plan

Pine Lodge, Stainborough Lane, Hood Green
Ref: AWA4276AMS

BRITISH STANDARD 5837:2012
SCALE: 1:250 PAPER: A1

	TREES TO BE RETAINED
	TREES FOR REMOVAL
	RPA: ROOT PROTECTION AREA
	TREE STEM
	HERAS TREE PROTECTION FENCING
	PLASTIC MESH TREE PROTECTION FENCING
	INTERLINKED GROUND PROTECTION BOARDS