

Arboricultural Method Statement (Infrastructure)

Haverhill, Phases 2-6

On behalf of

Persimmon Homes Suffolk

4 February 2020

JBA 18/351 AR02

Over 30 Years of Service, Value and Innovation

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Project	Haverhill, Phases 2-6
Report	Arboricultural Method Statement (Infrastructure)
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CONTENTS PAGE

1	SUMMARY	
	DEFINITIONS	
	SCOPE	4
2	LIMITATIONS	5
3	GENERAL TREE PROTECTION MEASURES	6
4	TREE WORKS	7
	WILDLIFE AND HABITAT LEGISLATION	9
5	TREE PROTECTION	10
	PROTECTIVE FENCING SPECIFICATION	10
6	SUPERVISION REQUIREMENTS	11
7	CONSTRUCTION	12
	MANUAL EXCAVATION WITHIN RPAS	
AP	PENDIX 1: TREE SURVEY SCHEDULE	14
AP	PENDIX 2: JBA DRAWINGS	15
AP	PENDIX 3: PROTECTIVE FENCING SPECIFICATION	16
AP	PENDIX 4: PROTECTIVE FENCING SIGNAGE	17

1 SUMMARY

- 1.1 This Arboricultural Method Statement (AMS) has been commissioned by Persimmon Homes Suffolk to ensure retained trees and vegetation are adequately protected during the infrastructure construction activities.
- 1.2 This report has been prepared in accordance with British Standard 5837: Trees in relation to design, demolition and construction Recommendations (2012) and The National Joint Utilities Group (NJUG) Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees Volume 4 Issue 2 (2007). These documents provide best practice advice, assessment and guidance to ensure the protection of trees and significant vegetation on development sites.
- 1.3 In order to successfully work in close proximity to trees, the methods described within this document should only be carried out in conjunction with the direct appointment of a qualified arboricultural consultant. Failure to implement the approved tree protection measures and procedures could lead to enforcement action, the destabilisation of trees and/or the ultimate death of the trees.

Definitions

- 1.4 Construction Exclusion Zone (CEZ) a fenced off area based upon the root protection area that is prohibited for the duration of a project (unless subject to supervised works)
- 1.5 Root Protection Area (RPA) a layout design tool indicating the minimum area around a tree containing sufficient roots to maintain a trees viability.
- 1.6 Supervised works demolition or construction works that require specific arboricultural advice and supervision to prevent damage from occurring.

Scope

- 1.7 This method statement addresses the following;
 - Tree removals
 - Tree protection specifications and requirements
 - Supervision requirements

2 LIMITATIONS

- 2.1 Trees are dynamic, living organisms whose health and condition can change quickly. Any changes to a tree, or to trees and the land surrounding it, may affect the tree's condition and/or stability. If any such changes occur further examination would be required and may affect the validity of this report.
- 2.2 The survey is not intended to be a detailed tree hazard assessment. Where significant faults that pose an immediate risk to persons or property are observed recommendations will be made; however the lack of any management recommendations within the survey schedule does not infer that a detailed health and safety assessment has been made and it is recommended that a formal management and inspection plan is considered.
- 2.3 The contents of this report are copyright of James Blake Associates and may not be copied without the author's permission. James Blake Associates' Terms and Conditions apply to this report and all associated works in conjunction with this project.



3 GENERAL TREE PROTECTION MEASURES

- 3.1 No fires will be permitted within 20m of the crown of any tree.
- 3.2 No alterations in soil levels other than those already agreed, will occur within the Construction Exclusion Zone (CEZ) without prior agreement from the appointed arboricultural consultant.
- 3.3 No materials, vehicles, plant or personnel will be permitted into the CEZ at any time without prior consent from the arboricultural consultant.
- 3.4 Any liquid materials spilled on site will be immediately cleared up and removed from the site. If liquid fuel or cement products are spilled within 2m of the tree protection zone, the contractor will report the incident to the arboricultural consultant immediately.
- 3.5 The contractor will report any damage to trees or shrubs, whether caused by construction activities or from any other cause, to the arboricultural consultant immediately.

4 TREE WORKS

- 4.1 A list of all approved and recommended tree removals can be found below and in the Tree Work schedule at Appendix 1; and are shown on the tree removal plan reference JBA 18/351 TR03 at Appendix 2.
- 4.2 All tree surgery works necessary for the development will be carried out prior to the commencement of site operations unless otherwise agreed.
- 4.3 Only tree works specified within this document or that have consent from the Local Planning Authority will be carried out. Any uncertainty regarding tree surgery or removal works will require confirmation from the appointed arboricultural consultant and local authority tree officer.



4.4 All tree works will be carried out in accordance with the recommendations made within the current BS3998 (2010).

Tree number	Species	Work recommendations	Reason(s) for works
G6	Elm	Fell to ground level.	Low safe useful life expectancy.
T11	Elm	Section fell to ground level.	Low safe useful life expectancy.
G15	Hawthorn, Blackthorn	Remove the easternmost 10m of the group.	To facilitate road layout.
G18	Field Maple, Hawthorn	Remove the northernmost 3m of the group.	To facilitate road layout.
G19	Goat Willow	Remove the southernmost 15m of the group.	To facilitate road layout.
G22	Blackthorn	Remove 20m long section	To facilitate cycleway construction.
G25	Hawthorn, Blackthorn	Remove the northernmost 20m of the group.	To facilitate road layout.
G26	Smooth-leaved Elm	Remove the southernmost 15m of the group.	To facilitate cycleway construction.
G28	Field Maple, Smooth-leaved Elm	Remove the northernmost 3m of the group.	To facilitate footway/cycleway construction.
G29	Hawthorn, Blackthorn	Remove the southernmost 38m of the group.	To facilitate road layout.
G30	Smooth-leaved Elm	Remove 18m long section	To facilitate road layout.
G37	Field Maple, Hawthorn, Blackthorn	Remove the easternmost 20m of the group.	To facilitate road layout.
G43	Ash, Blackthorn, Elm	Remove the westernmost 65m of the group.	To facilitate road layout.



Wildlife and habitat legislation

- 4.5 All tree work will be carried out in accordance with the Wildlife and Countryside Act 1981 (as amended) and the Habitat Regulations 2010.
- 4.6 These regulations make it an offence to;
 - intentionally or deliberately kill, injure or capture protected species;
 - deliberately disturb protected species;
 - damage, destroy or obstruct access to a structure used for shelter or protection by a protected species;
 - take, damage, disturb or destroy the nest of any wild bird while it is in use or being built;
 - take or destroy the egg of any wild bird; or
 - damage, destroy or obstruct access to bat roosts whether or not bats are using roosts at the time.
- 4.7 Prior to the commencement of works the tree surgery contractor has a legal duty to ensure no protected species or habitats are present. If any species or habitats are discovered then works will cease and a suitably qualified ecologist will be employed to carry out more detailed surveys and to provide advice.

5 TREE PROTECTION

Protective fencing specification

- 5.1 Protective fencing will be installed prior to any enabling works, demolition or construction activity commences.
- 5.2 The position of protective fencing is shown on drawing JBA 18/351 TP03 at Appendix2.
- 5.3 Protective fencing will be constructed of weld mesh panels securely fixed to a static framework fit for the purpose of excluding construction traffic.
- 5.4 Alternative specifications to those shown must be agreed prior to installation by the local authority and arboricultural consultant.
- 5.5 All weather signage will be securely fixed to panels at regular intervals stating the purpose of the fencing and contact details of the arboricultural consultant. A suggested sign can be found at Appendix 3 and may be copied for use on site.
- 5.6 Upon completion of tree protection, the site manager will invite the arboricultural consultant to inspect and sign off the specification and position of all tree protection.
- 5.7 Once installed, protective fencing will remain in position for the duration of the project or until it requires removal to a specified alternative position to allow for works.

6 SUPERVISION REQUIREMENTS

- 6.1 The arboricultural consultant will be available for ongoing advice and design input to ensure works close to trees is avoided or correctly specified.
- 6.2 Any works that could impact upon retained trees will be supervised and monitored by the arboricultural consultant. It is suggested that as a minimum supervision visits will occur as follows;
 - Pre-commencement site meeting with project manager to discuss tree protection, tree works and programme.
 - Meeting with tree contractor to specify and agree on works
 - Inspection of protective fencing prior to the demolition and construction phases

7 CONSTRUCTION

Manual excavation within RPAs

- 7.1 All works within Root Protection Areas (RPAs) will be carried out under the direct supervision of the appointed arboricultural consultant (JBA).
- 7.2 No site personnel will enter these areas until a representative from JBA is present.
- 7.3 A section of protective fencing will be temporarily removed to provide access to the required area.
- 7.4 Where necessary, the appointed arboricultural consultant will specify the location of temporary ground protection and the level of protection required.
- 7.5 Excavations will be carried out manually using appropriate hand tools OR using an air lance to expose tree roots.
- 7.6 No machinery will be permitted into the working area unless agreed by the arboricultural consultant.
- 7.7 All excavated spoil will be manually removed from the area or placed on temporary ground protection to be used for back filling upon completion.
- 7.8 All roots in excess of 25mm in diameter and all clumps of fibrous roots greater than 25mm in diameter will be retained and wrapped in dry hessian during the works to prevent desiccation.
- 7.9 Roots less than 25mm may be pruned by the arboricultural consultant where deemed essential to complete works.
- 7.10 Root pruning will only be carried out by the arboricultural consultant, using sharp, sterile tools suitable to the size of the root to be cut. Where possible roots will be pruned cleanly back to a side branch.
- 7.11 Prior to backfilling any hessian wrapping will be removed from retained roots.
- 7.12 The roots will then be surrounded with topsoil, sharp sand (builders' sand will not be used due to its high salt content) or other loose inert granular fill, before soil or other medium is replaced. This material should be uncontaminated and free from injurious objects.
- 7.13 Temporary ground protection will be removed in a backwards direction away from the tree so as always to be positioned on protection and not on unprotected ground.



7.14 Once the work area is cleared of ground protection the recently backfilled spoil will be watered and the removed section of protective fencing reinstalled.



APPENDIX 1: TREE SURVEY SCHEDULE

James

Description

High quality and value (non-fiscal) with at least 40 years remaining life expectancy. Moderate quality and value

Tree Survey Schedule - Key

Life	
Stage	Description
NP	Newly planted
Y (Young)	An establishing tree that could be easily transplanted.
SM (Semi Mature)	An established tree still to reach its ultimate height and spread and with considerable growth potential.
EM (Early Mature)	A tree reaching its ultimate height and whose growth is slowing however it will still increase considerably in stem diameter and crown spread.
M (Mature)	A tree with limited potential for further significant increase in size although likely to have a considerable safe useful life expectancy.
OM (Over Mature)	A senescent or moribund tree with a limited useful life expectancy.
V (Veteran)	A tree older than typical for the species and of great ecological, cultural or aesthetic value.

Abbreviat ions	Description
Stem Ø (mm) at 1.5m	Diameter of stem in millimetres at 1.5m above ground level for single-stemmed trees or in accordance with Annex C of BS 5837 for multi-stemmed trees or trees with low forks or irregular stems.
Stems	Numbers of stems or M/S = Multi-Stemmed.
Height of (FSB)	Height of First Significant Branch above ground level.
Crown Spread NSEW	Crown spread at the four points, North, South, East and West.
Condition	Condition of the tree observed at the time of surveying G = Good; F = Fair; P = Poor; D = dead

В	with at least 20 years remaining life expectancy.
c	Low quality and value with at least 10 years remaining life expectancy, or young trees with a stem diameter below 150 mm.
V	Unsuitable for retention. The existing condition is such that the tree/ trees cannot be realistically retained as in the context of the current land use for longer than 10 years. Note, category U trees can have existing or potential conservation value which it might be desirable to preserve.
Radii Single Stem (m)	Root Protection Radius in metres based on stem diameter.
RPA	Root Protection Area. A layout design tool indicating the minimum area surrounding the tree that contains sufficient rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. Assessed according to the recommendations set out in clause 4.6 of BS 5837. It is calculated by multiplying the radius squared by 3.142. Clause 4.6.2 of BS 5837 states that the RPA may be changed in shape, taking into account local site factors, species tolerance, condition and root morphology.

BS Category

Α

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Est

Remaining

Contribution n (Years)

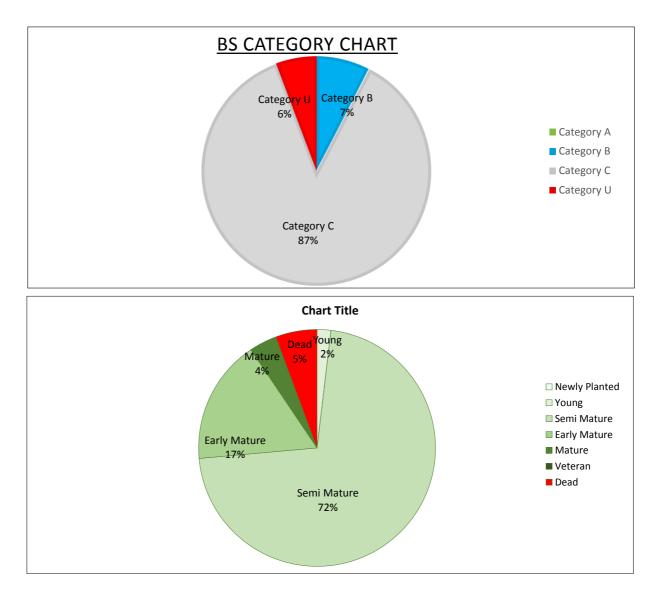
Begistration po. 08169866 VAT po. 512 4127 91

Estimated Remaining Contribution in Years (<10, 10+, 20+, 40+)

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BS Category	Total
Category A	0
Category B	4
Category C	46
Category U	3



Age Class	Total
Newly Planted	0
Young	1
Semi Mature	38
Early Mature	9
Mature	2
Veteran	0
Dead	3

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Tree Survey Schedule

Site name: Haverhill Phases 2-6 Client: Persimmon Homes Suffolk Job Number: 18/351

Survey Date: 13 December 2018

Surveyor: Simon Smith

Tree			Stem Ø (mm) at	Height (m)	Height of (FSB)	Crown Spread			Condition	Comments	Tree Management Reccommendations	Est Remaining	BS Cat	Radii	RPA (m)	
No.			1.5m			N	E	s	w				Contribution (Years)		Single Stem (m)	
T1	Leyland Cypress (x Cupressocyparis leylandii).	SM	250	5	2	2.5	2.5	2.5	2.5	Good	Not identified on the topographical survey. Unable to fully inspect - fence. Stem diameter estimated. Situated in rear garden.		10+	C1	3.0	28
T2	Norway Maple (Acer platanoides).	EM	300	6	2.5	2.5	2.5	3	3	Fair	Not identified on the topographical survey. Unable to fully inspect - fence. Situated in rear garden. Stem diameter estimated. Crown reduced at 4m.		10+	C1	3.6	41
G3	Common Hawthorn (Crataegus monogyna). Elm (Ulmus sp.).	SM	200	6	1	2	2	2	3	Good	Not identified on the topographical survey. Unable to fully inspect - vegetation. Stem diameter estimated.		10+	C2	2.4	18
Т4	Leyland Cypress (x Cupressocyparis leylandii).	EM	200	4	0.5	2.5	1	2.5	2.5	Fair	Not identified on the topographical survey. Unable to fully inspect - vegetation. Stem diameter estimated. Topped, continuation of conifer hedge between properties.		10+	C2	2.4	18
G5	Leyland Cypress (x Cupressocyparis leylandii).	EM	250	4.5	1	2	2	2	2	Fair	Not identified on the topographical survey. Unable to fully inspect - vegetation. Stem diameter estimated. Topped.		10+	C2	3.0	28
G6	Elm (Ulmus sp.).	D	200	9	4	2	2	2	2	Poor	Not identified on the topographical survey. Unable to fully inspect - vegetation. Stem diameter estimated. Dutch elm disease (Ophiostoma novo-ulmi). Linear group of elms, some dead, situated to rear of ditch.	Fell to ground level.	<10	U	2.4	18
G7	Field Maple (Acer campestre). Smooth- leaved Elm (Ulmus minor var. minor).	SM	100	6	1.5	2	2	2	2	Fair	Not identified on the topographical survey. Unable to fully inspect - vegetation. Stem diameter estimated.		10+	C2	1.2	5
G8	Smooth-leaved Elm (Ulmus minor var. minor).	SM	354	14	4	3	5	4	4	Good	Not identified on the topographical survey. Unable to fully inspect - ivy, vegetation. Stem diameter estimated. Poor pruning wounds. Minor dead wood. Branch stubs. Situated south of ditch. Value downgraded to reflect presence of Dutch elm disease on site.		10+	C2	4.3	57
G9	Field Maple (Acer campestre).	SM	532	12	2.5	3	5	4	4	Good	Not identified on the topographical survey. Unable to fully inspect - vegetation. Stem diameter estimated. Typical crown form with no obvious major defects.		10+	C2	6.4	128

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Tree	Tree Species				Condition	Comments	Tree Management Reccommendations	Est Remaining	BS Cat	Radii	RPA (m)					
No.			1.5m			N	Е	s	w				Contribution (Years)		Single Stem (m)	
G10	Common Ash (Fraxinus excelsior). Smooth- leaved Elm (Ulmus minor var. minor).	SM	300	14	5	4	5	4	5	Good	Not identified on the topographical survey. Unable to fully inspect - vegetation. Stem diameter estimated. Situated in ditch, value downgraded due to potential susceptibility to Dutch elm disease (noted on site).		10+	C2	3.6	41
T11	Elm (Ulmus sp.).	D	250	12	4.5	3	3	3	3	Dead	Not identified on the topographical survey. Unable to fully inspect - vegetation. Stem diameter estimated.	Fell to ground level.	<10	U	3.0	28
G12	Common Hawthorn (Crataegus monogyna). Blackthorn (Prunus spinosa).	SM	200	4	0.5	2.5	2.5	2.5	2.5	Fair	Unable to fully inspect - vegetation.		10+	C2	2.4	18
T13	Norway Maple (Acer platanoides).	SM	280	12	4	4	3	4	4	Good	Unable to fully inspect - vegetation. Stem diameter estimated. Typical crown form with no obvious major defects.		10+	C1	3.4	35
G14	Common Ash (Fraxinus excelsior).	SM	250	10	3	4	4	4	4	Good	Unable to fully inspect - vegetation. Stem diameter estimated.		10+	C2	3.0	28
G15	Common Hawthorn (Crataegus monogyna). Blackthorn (Prunus spinosa).	EM	212	6	0.5	2.5	2.5	2.5	2.5	Good	Unable to fully inspect - vegetation. Stem diameter estimated.	Remove the easternmost 10m of the group.	10+	C2	2.5	20
G16	Elm (Ulmus sp.).	D	250	12	2	4	4	4	4	Poor	Not identified on the topographical survey. Unable to fully inspect - vegetation. Dutch elm disease (Ophiostoma novo-ulmi). Dead and dying trees.		<10	U	3.0	28
G17	Common Hawthorn (Crataegus monogyna).	EM	173	5	0.5	2	2	2	2	Fair	Unable to fully inspect - vegetation. Stem diameter estimated. Upper crown dieback. Trees dying at eastern end of group.		10+	C2	2.1	14
G18	Field Maple (Acer campestre). Common Hawthorn (Crataegus monogyna).	Y	75	4	1	1.5	1.5	1.5	1.5	Good	Stem diameter estimated. Linear group. Appears to have been planted to screen adjacent development.	Remove the northernmost 3m of the group.	10+	C2	0.9	3

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Tree	Tree Species	Life Stage	Stem Ø (mm) at	Height (m)	Height of (FSB)		Crown Spread		Condition	Comments	Tree Management Reccommendations	Est Remaining	BS Cat	Radii	RPA (m)	
No.			1.5m			N	E	s	w				Contribution (Years)		Single Stem (m)	
G19	Goat Willow (Salix caprea).	SM	260	8	0.5	2	3	2	2	Good	Stem diameter estimated. Self-set.	Remove the southernmost 15m of the group.	10+	C2	3.1	31
G20	Goat Willow (Salix caprea).	SM	200	6	0.5	2	2.5	2	2.5	Good	Stem diameter estimated. Self-set.		10+	C2	2.4	18
G21	Silver Birch (Betula pendula). Common Hazel (Corylus avellana). Scots Pine (Pinus sylvestris).	SM	150	8	2	2	2	2	2	Good	Stem diameter estimated. Buffer between site and surrounding area.		10+	C2	1.8	10
G22	Blackthorn (Prunus spinosa).	SM	50	3.5	0	2	2	2	2	Good	Unable to fully inspect - vegetation. Stem diameter estimated. Suckers extending group.	Remove 20m long section.	10+	C2	0.6	1
G23	Blackthorn (Prunus spinosa).	SM	50	3.5	0	1	1	1	1	Good	Unable to fully inspect - vegetation. Stem diameter estimated. Suckers extending group.		10+	C2	0.6	1
G24	Blackthorn (Prunus spinosa).	SM	50	4	0	2	2	2	2	Good	Unable to fully inspect - vegetation. Stem diameter estimated. Suckers extending group.		10+	C2	0.6	1
G25	Common Hawthorn (Crataegus monogyna). Blackthorn (Prunus spinosa).	SM	50	4	0	2	2	2	2	Good	Unable to fully inspect - vegetation. Stem diameter estimated. Suckers extending group.	Remove the northernmost 20m of the group.	10+	C2	0.6	1
G26	Smooth-leaved Elm (Ulmus minor var. minor).	SM	300	13	1.5	4	4	3.5	4	Good	Unable to fully inspect - vegetation. Largest stem diameter recorded. Good vitality. Categorisation downgraded due to potential risk of Dutch elm disease.	Remove the southernmost 15m of the group.	10+	C2	3.6	41
G27	Blackthorn (Prunus spinosa).	SM	100	5	0.5	3	3	3	3	Good	Unable to fully inspect - vegetation. Stem diameter estimated.		10+	C2	1.2	5

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Tree	Tree Species	Life Stage	Stem Ø (mm) at	Height (m)	Height of (FSB)		Crown Spread C		Condition	Comments	Tree Management Reccommendations	Est Remaining	BS Cat	Radii	RPA (m)	
No.			1.5m			N	Е	s	w				Contribution (Years)		Single Stem (m)	
G28	Field Maple (Acer campestre). Smooth- leaved Elm (Ulmus minor var. minor).	SM	250	13	1.5	2	3.5	3.5	3.5	Good	Unable to fully inspect - vegetation. Stem diameter estimated. Dominated by elm with one field maple at southern end. On western side of ditch. Value downgraded to reflect presence of Dutch elm disease on site.	Remove the northernmost 3m of the group.	10+	C2	3.0	28
G29	Common Hawthorn (Crataegus monogyna). Blackthorn (Prunus spinosa).	SM	173	5	0	2	2	2	2	Good	Unable to fully inspect - vegetation. Stem diameter estimated.	Remove the southernmost 38m of the group.	10+	C2	2.1	14
G30	Smooth-leaved Elm (Ulmus minor var. minor).	SM	250	10	1.5	3.5	3.5	3.5	3.5	Good	Unable to fully inspect - vegetation. Stem diameter estimated. Value downgraded to reflect presence of Dutch elm disease on site.	Remove 18m long section.	10+	C2	3.0	28
G31	Common Hawthorn (Crataegus monogyna).	SM	100	5	0	2.5	2.5	2.5	2.5	Good	Unable to fully inspect - vegetation. Stem diameter estimated.		10+	C2	1.2	5
G32	Field Maple (Acer campestre). Common Hawthorn (Crataegus monogyna).	SM	200	8	1	3	3	3	3	Good	Unable to fully inspect - vegetation. Stem diameter estimated. Field maples with hawthorn understorey.		10+	C2	2.4	18
Т33	English Oak (Quercus robur).	SM	400	10	3	4.5	5.5	5	5	Good	Unable to fully inspect - vegetation. Stem diameter estimated.		20+	B1	4.8	72
Н34	Field Maple (Acer campestre). Common Hawthorn (Crataegus monogyna). Blackthorn (Prunus spinosa).	EM	50	2.5	0	2	2	2	2	Good	Unable to fully inspect - vegetation. Stem diameter estimated. Maintained hedgerow. Hedge comprises thorn species with occasional field maples growing within it. Suckers extending hedge width.		10+	C2	0.6	1
Т35	English Oak (Quercus robur).	SM	450	8	2	6	6.5	6	5.5	Good	Unable to fully inspect - vegetation. Flail damage. Branch stubs. Crown height 2m south.		20+	B1	5.4	92
Т36	Common Ash (Fraxinus excelsior).	SM	300	6	2.5	3	4	3	3.5	Good	Unable to fully inspect - ivy. Unable to fully inspect - vegetation. Stem diameter estimated. Typical crown form with no obvious major defects.		10+	C1	3.6	41
G37	Field Maple (Acer campestre). Common Hawthorn (Crataegus monogyna). Blackthorn (Prunus spinosa).	SM	75	5	0	2	2	2	2	Good	Unable to fully inspect - vegetation. Stem diameter estimated.	Remove the easternmost 20m of the group.	10+	C2	0.9	3

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Tree No.	Tree Species	Life Stage	Stem Ø (mm) at 1.5m	Height (m)	Height of (FSB)	Crown Spread				Condition	Comments	Tree Management Reccommendations	Est Remaining	BS Cat	Radii	RPA (m)
						N	E	s	w				Contribution (Years)		Single Stem (m)	
Т38	English Oak (Quercus robur).	EM	760	10	3.5	6	6	7	6	Good	Minor dead wood. Minor basal wound. Stem pruning wounds. Low crown. Historic swelling of lower stem. Crown height 1m south.		20+	B1,B2	9.1	261
Т39	Common Hazel (Corylus avellana).	SM	237	5	0.5	4	4	3.5	3.5	Good	Not identified on the topographical survey. Unable to fully inspect - vegetation. Stem diameter estimated. Typical crown form with no obvious major defects.		10+	C1	2.8	25
G40	Field Maple (Acer campestre). Common Hawthorn (Crataegus monogyna). Blackthorn (Prunus spinosa).	SM	168	4	0	2	2	2	2	Good	Unable to fully inspect - vegetation. Stem diameter estimated.		10+	C2	2.0	13
G41	Blackthorn (Prunus spinosa). Common Hazel (Corylus avellana).	SM	168	4	0	1.5	1.5	1.5	1.5	Good	Unable to fully inspect - vegetation. Stem diameter estimated.		10+	C2	2.0	13
	Common Hawthorn (Crataegus monogyna). Common Hazel (Corylus avellana). Wild Crab Apple (Malus sylvestris).	SM	158	5	0	2	1.5	1.5	2	Good	Unable to fully inspect - vegetation. Stem diameter estimated. Flail damage.		10+	C2	1.9	11
	Common Ash (Fraxinus excelsior). Blackthorn (Prunus spinosa). Elm (Ulmus sp.).	SM	100	4	0	2	2	2	2	Good	Stem diameter estimated. Hedgerow with gaps.	Remove the westernmost 65m of the group.	10+	C2	1.2	5
H44	Field Maple (Acer campestre).	EM	150	3.5	0.5	2	2	2	2	Good	Maintained hedgerow. Growing from ditch.		10+	C2	1.8	10
T45	Common Ash (Fraxinus excelsior).	EM	700	12	4	5.5	5.5	6	6	Fair	Poor pruning wounds. Minor dead wood.		10+	B1	8.4	222
T46	Goat Willow (Salix caprea).	SM	453	7.5	0.5	5	5	5	5	Good	Stem diameter estimated. Typical crown form with no obvious major defects. Low crown.		10+	C1	5.4	93
T47	Common Ash (Fraxinus excelsior).	SM	367	8	1.5	4	4	4	4	Good	Stem diameter estimated. Multi-stemmed from base.		10+	C1	4.4	61

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Tree No.	Tree Species	Life Stage	Stem Ø (mm) at 1.5m	Height (m)	Height of (FSB)	Crown Spread				Condition	Comments	Tree Management Reccommendations	Est Remaining	BS Cat	Radii	RPA (m)
						N	E	s	w				Contribution (Years)		Single Stem (m)	
G48	Field Maple (Acer campestre). Elm (Ulmus sp.).	SM	300	8	0.5	з	4	3	3	Fair	Unable to fully inspect - vegetation. Stem diameter estimated. Two dead trees in group (elm?).		10+	C2	3.6	41
G49	Hornbeam (Carpinus betulus).	SM	120	6	1	2.5	2.5	2.5	2.5	Good	Unable to fully inspect - ditch. Stem diameter estimated. Typical crown form with no obvious major defects.		10+	C2	1.4	7
G50	Cherry Laurel (Prunus laurocerasus).	м	100	4	0	2	2	2	2	Good	Unable to fully inspect - fence/wall. Stem diameter estimated. Maintained hedgerow.		10+	C2	1.2	5
G51	Common Ash (Fraxinus excelsior). Hornbeam (Carpinus betulus). Leyland Cypress (x Cupressocyparis leylandii).	SM	100	2.5	0.5	1	1	1	1	Good	Unable to fully inspect - fence/wall. Stem diameter estimated. Maintained small groups of conifers interspersed with occasional planted hornbeam and ash.		10+	C2	1.2	5
G52	Common Hawthorn (Crataegus monogyna).	SM	200	4	0.5	2	2	2.5	2	Fair	Unable to fully inspect - fence/wall. Stem diameter estimated. Branch pruning wounds.		10+	C2	2.4	18
	Elm (Ulmus sp.). Common Hazel (Corylus avellana).	М	100	5	2	2	3.5	2	2	Fair	Stem diameter estimated. Low canopy. Maintained hedgerow.		10+	C2	1.2	5

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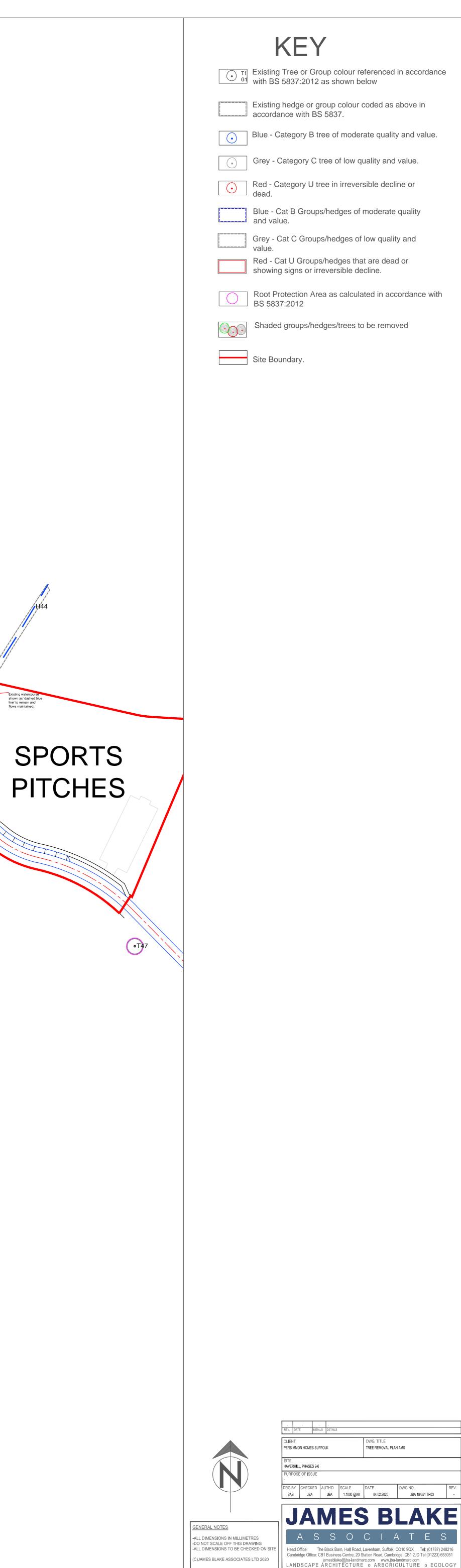
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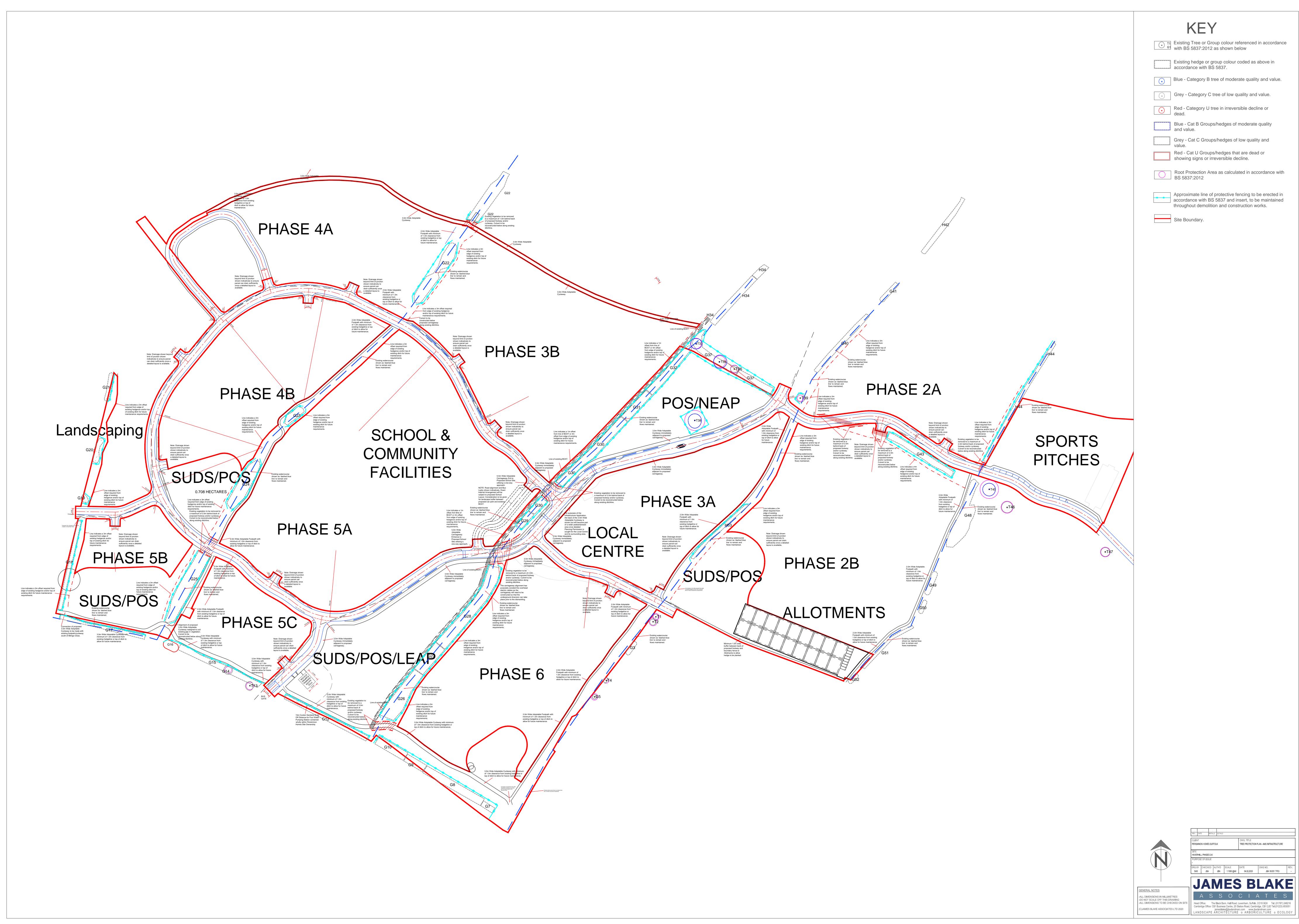
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APPENDIX 2: JBA DRAWINGS









APPENDIX 3: PROTECTIVE FENCING SPECIFICATION

BRITISH STANDARD

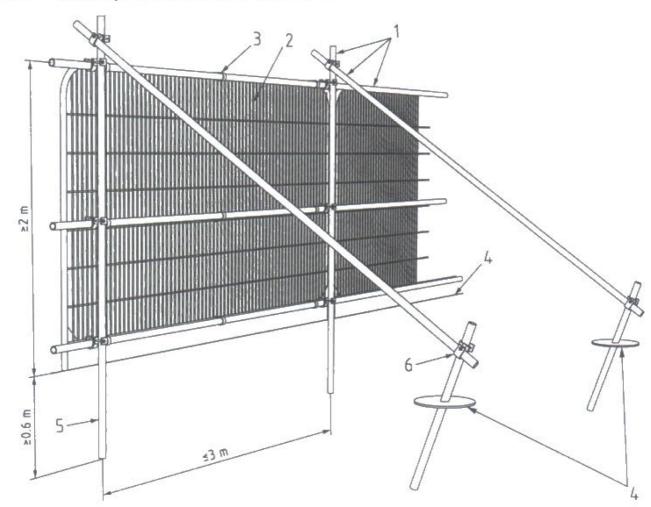
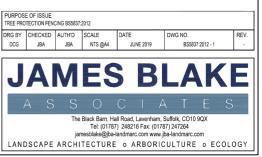


Figure 2 Default specification for protective barrier

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





APPENDIX 4: PROTECTIVE FENCING SIGNAGE



TREE PROTECTION AREA KEEP OUT!

NO WORKS TO BE CARRIED OUT IN THIS AREA WITHOUT PRIOR AGREEMENT OF THE LOCAL AUTHORITY OR APPOINTED ARBORICULTURAL CONSULTANT

James

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