Mitton Road
Whalley

Prospect GB

ARBORICULTURAL IMPACT ASSESSMENT
AND
METHOD STATEMENT

tba
landscape architects

Landscape Architecture
Arboriculture

Ashton Old Baths
Stamford Street West
Ashton-under-Lyne
Lancashire
OL6 7EW

December 2020

Ref: MG/6399/AIA&AMS/DEC20

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1.0 Introduction

1.1 This document has been prepared by Trevor Bridge Associates on the behalf of Prospect GB. It provides an Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS) in regards to the following proposed development.

- Demolition of existing housing and construction of 50 dwellings with related infrastructure.

1.2 This document follows, and should be read in conjunction with, a pre-development tree survey that was undertaken by TBA Ltd in September 2020 and revised twice – (ref: PD/6399/TSR/REV B/DEC20).

1.3 For the purposes of preparing this document the following material was referenced:

- Eden Rose Consultancy drawing: ***Planning Layout. Drawing. No. MR/W-SJS-PL01. Rev. B. Date: 18.11.2020.***
- Edge Consulting Engineers drawing: ***Schematic Drainage Layout. Drawing. No. 200903-EDGE-XX-XX-DR-C-2001. Rev. P04.***
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1.4 This report assesses the potential impacts to trees as a consequence of the development proposals, as well as specifying the necessary methodologies required during construction to ensure that trees being retained are afforded adequate protection from harm.

1.5 Accompanying this report is the following drawing which must be read in conjunction with this report:

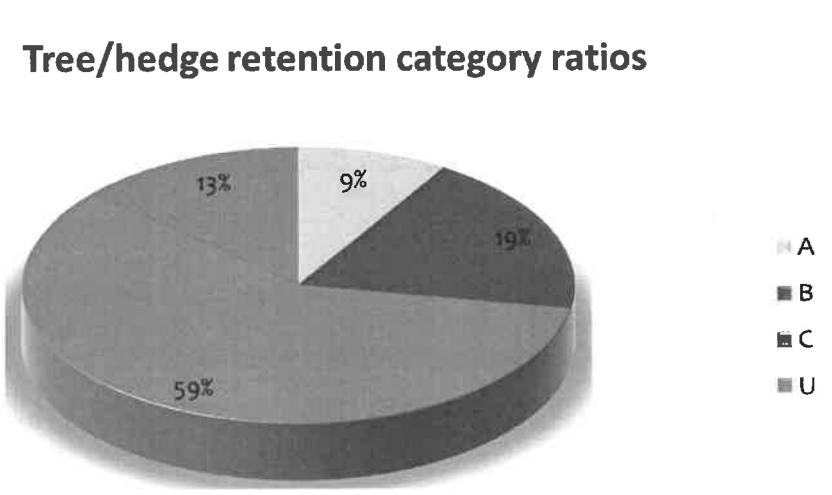
- ***TBA Drawing: Tree Protection Plans. Drawing No.s 6399.03, 6399.04, 6399.05 & 6399.06. Date: December 2020.***

2.0 Arboricultural Impact Assessment

2.1 The consequences on existing trees situated within and adjacent the proposed development site are considered.

2.2 The value of the trees and vegetation surveyed

In the initial tree survey report a total of 158 items were surveyed within and adjacent the development site. These items comprised 78 individual trees, 32 groups, and 48 hedges. The chart and table below shows the ratio of tree retention categories on the site and number of items (be it groups or individuals etc that were surveyed).



Retention Category	No.
A (High Value)	14
B (Moderate value)	30
C (Low value)	93
U (Remove)	21

3.0 Arboricultural Impact Table - Key

3.1 The Arboricultural Impact Table (section 3.3) lists all items surveyed within the site. The tree data is taken from the initial tree survey report. The table is colour coded for ease of reference, particularly in relation to the value of trees and the potential impact that may occur to them:

Tree Values

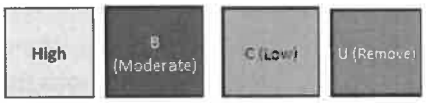
High	High value tree / group / hedge as included within the initial tree survey
B (Moderate)	Moderate value tree / group / hedge as included within the initial tree survey
C (Low)	Low value tree / group / hedge as included within the initial tree survey
U (Remove)	Tree / group / hedge in poor condition. Retention unsustainable within context of development

Impacts on Tree's / Groups

Removal	Tree / Group / Hedge will require removal in order to facilitate the development proposals
Partial Removal	Group or hedge will require partial removal to facilitate the development proposals
High	The development proposals will have a high impact the on the tree /group / hedge
Moderate	The development proposals will have a moderate impact on the tree / group /hedge
Low	The development proposals will have a low impact on the tree / group / hedge
None	The development proposals will have no impacts on the tree / group / hedge

3.2 Arboricultural Impact Table - Cascade Chart:

3.2.1 Tree **Values** are taken from BS: 5837 and comprise of the following:



3.2.2 The **Impacts** comprise of 6 elements:

3.2.3 Causes of impacts comprise of 6 factors: ***'None', 'To facilitate development', 'Due to poor condition', 'Direct disturbance to roots', 'Pruning required'*** **and** ***'Possible future pruning pressure due to shade and other factors'***.

3.2.4 Comments are also included providing more information where necessary.

	REMOVAL	PARTIAL REMOVAL	HIGH	MODERATE	LOW
TO FACILTATE DEVELOPMENT	Tree / group requires removal.	Partial removal of group is required. I.e., 'a section of hedge may require removal to allow a new access road'.	N/A	N/A	N/A
DUE TO POOR CONDITION	Tree or group require removal due to poor structural and / or physiological condition.	Part of group require removal due to poor structural and / or physiological condition.	N/A	N/A	N/A
DIRECT DISTURBANCE TO ROOTS	N/A	N/A	In many case this will result in the loss of tree/s - refer to **'TO FACILIATE DEVELOPMENT'**. In rare cases a Tree/s may be retained but damage will occur to the roots.	Disturbance will be caused to roots of a tree/s that are likely to result in some physiological and structural dysfunction. The extent of damage does not require trees to be felled. Remedial actions may be taken in some cases that would help mitigate against damage but site topography, tree age, condition and species condition may result in disturbance being considered **MODERATE** as opposed to **LOW.**	Activity will occur within the root protection area of trees which will have a low impact, or can be mitigated by special measures.
PRUNING REQUIRED	N/A	N/A	Pruning that may retain a tree but will have a potential impact on the tree condition and visual appearance	Pruning is required that is acceptable within recommendations within BS3008:2010, but would require a material alteration to the tree/group affected.	Pruning is required that will have little impact to the structural, physiological and visual amenity of a tree or group.
POSSIBLE FUTURE PRUNING PRESSURE DUE TO SHADE OR OTHER FACTORS	Removal of tree/s required as retention is unsustainable and/or undesirable within the context of development. i.e. fast growing tree in small garden.	Partial removal of tree/s required as retention is unsustainable and/or undesirable within the context of development. i.e. fast growing tree in small garden.	Tree/s likely to cause significant shading. i.e. small garden areas with dense mature trees to south.	Some level of shade or other inconvenience will occur. Not highly oppressive, but some residents may seek management of trees in long term.	Some level of shading / overhang will occur.

3.3 ARBORICULTURAL IMPACT TABLE - RESULTS

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
1G	Hornbeam	C (Low)	None	N/a	Off site group unaffected by proposals.	
2G	Mixed species	C (Low)	Removal	To facilitate development	Group requires clearance	
3G	4 x hornbeam	B (Moderate)	Low	Pruning required	The lateral canopy spread into the site will require pruning to provide clearance to facilitate construction works.	
			Moderate	Possible future pruning pressure due to shading and/or other factors	The group, situated due south of plot 50, will cause shading within the garden area.	Despite the shading the group does provide screening of the plot from the adjacent road and roundabout.
4H	Hornbeam and blackthorn	B (Moderate)	Partial Removal	To facilitate development	Partial removal of the hedge is required to facilitate new access into proposed plots from Mitton Road.	
			Low	Pruning required	The dereliction of the gardens has resulted in lack of management of the hedge.	Retained sections of the hedge requires trimming/restructuring to contain and reduce the height spread of the hedge.
5G	Mixed species	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
6T	Yew	B (Moderate)	Removal	To facilitate development		
7T	Beech	B (Moderate)	Removal	To facilitate development		
8T	Yew	C (Low)	Removal	To facilitate development		
9T	Ash	U (Poor)	Removal	Due to poor condition		
10T	Silver birch	B (Moderate)	Removal	To facilitate development		
11T	Ash	U (Poor)	Removal	Due to poor condition		
12G	Ash, elm, oak	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
13H	Beech and privet	B (Moderate)	Removal	To facilitate development		
14T	Apple	C (Low)	Removal	To facilitate development		
15T	Apple	C (Low)	Removal	To facilitate development		
16T	Ash	U (Poor)	Removal	Due to poor condition		
17H	Privet	C (Low)	Removal	To facilitate development		
18T	Goat willow	C (Low)	Removal	To facilitate development		
19T	Ash	U (Poor)	Removal	Due to poor condition		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
20T	Oak	A (High)	Low	Possible future pruning pressure due to shading and/or other factors	Tree proposed for retention. An existing concrete path within the root protection area of the tree to be removed in a controlled manner using hand tools.	Minor shading to adjacent plot in the morning, though the plot will enjoy unimpeded light during the majority of the day.
21G	Elm and prunus spp	C (Low)	Removal	To facilitate development		
22G	Cherry laurel	C (Low)	Removal	To facilitate development		
23T	Silver birch	B (Moderate)	None	N/a	Tree proposed for retention. An existing concrete path within the root protection area of the tree to be removed in a controlled manner using hand tools.	
24T	Ash	U (Poor)	Removal	To facilitate development		
25H	Privet	C (Low)	Removal	To facilitate development		
26G	Hawthorn, privet and maple	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
27G	4 x Lawson cypress	B (Moderate)	Removal	To facilitate development		
28T	Sycamore	B (Moderate)	Removal	To facilitate development		
29T	Atlas Cedar	B (Moderate)	Removal	To facilitate development		
30H	Privet	C (Low)	Removal	To facilitate development		
31G	Maple, birch and lonicera	C (Low)	Removal	To facilitate development		
32T	Silver birch	B (Moderate)	Removal	To facilitate development		
33T	Oak	B (Moderate)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
34H	Cypress	C (Low)	Removal	To facilitate development		
35G	Privet	C (Low)	Removal	To facilitate development		
36G	2 x goat willow	C (Low)	Removal	To facilitate development		
37T	Lawson cypress	B (Moderate)	Removal	To facilitate development		
38T	Cupressus spp	B (Moderate)	Removal	To facilitate development		
39H	Hawthorn	B (Moderate)	Partial Removal	To facilitate development		
40T	Goat willow	B (Moderate)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
41H	Privet	C (Low)	Removal	To facilitate development		
42T	Prunus spp	B (Moderate)	Removal	To facilitate development		
43T	Cherry	C (Low)	Removal	To facilitate development		
44T	Alder	B (Moderate)	Removal	To facilitate development		
45G	2 x Lawson cypress	B (Moderate)	Removal	To facilitate development		
46H	Privet	C (Low)	Removal	To facilitate development		
47G	Laurel, rose, lilac	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
48T	Rowan	C (Low)	Removal	To facilitate development		
49G	Alder and birch	C (Low)	Removal	To facilitate development		
50H	Privet	C (Low)	Removal	To facilitate development		
51T	Ash	C (Low)	Removal	To facilitate development		
52T	Juniper	C (Low)	Removal	To facilitate development		
53H	Blackthorn	C (Low)	Removal	To facilitate development		
54G	Blackthorn, ash, hazel	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
55T	Juniper	C (Low)	Removal	To facilitate development		
56T	Ash	U (Poor)	Removal	To facilitate development		
57T	Ash	U (Poor)	Removal	To facilitate development		
58H	Privet	C (Low)	Removal	To facilitate development		
59H	Privet	C (Low)	Removal	To facilitate development		
60T	Scots pine	C (Low)	Removal	To facilitate development		
61T	Goat willow	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
62H	Privet and elm	C (Low)	Low	Pruning required	Trim the lateral sections of the hedge on the side to tidy and contain.	
63T	Sycamore	C (Low)	None	N/a	Off site tree.	
64T	Lawson cypress	B (Moderate)	None	N/a	Off site tree.	
65T	Goat willow	C (Low)	None	N/a	Off site tree.	
66G	Cypress, cherry, Apple	C (Low)	Removal	To facilitate development		
67H	Privet	C (Low)	Removal	To facilitate development		
68H	Privet	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
69H	Privet	C (Low)	Removal	To facilitate development		
70H	Privet	C (Low)	Removal	To facilitate development		
71T	Apple	C (Low)	Removal	To facilitate development		
72H	Privet	C (Low)	Removal	To facilitate development		
73H	Privet	C (Low)	Removal	To facilitate development		
74H	Privet	C (Low)	Removal	To facilitate development		
75G	Ash	U (Poor)	None	N/a		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
76T	Ash	U (Poor)	Removal	To facilitate development		
77T	Pear	C (Low)	None	N/a		
78H	Privet	C (Low)	None	N/a		
79T	Portugal laurel	C (Low)	None	N/a		
80H	Privet and beech	C (Low)	None	N/a		
81T	Ash	U (Poor)	None	N/a		
82T	Ash	U (Poor)	None	N/a		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
83T	Ash	U (Poor)	None	N/a		
84T	Elm	B (Moderate)	None	N/a		
85T	Oak	**A (High)**	None	N/a		
86T	Oak	**A (High)**	Moderate	Direct disturbance to roots	Tree protection fencing required.	
87T	Sycamore	B (Moderate)	Removal	To facilitate development		
88G	Ash, sycamore, elm	C (Low)	Removal	To facilitate development		
89G	Ash	U (Poor)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
90T	Cherry	B (Moderate)	Removal	To facilitate development		
91G	Ash, hawthorn, elder, sycamore	C (Low)	Removal	To facilitate development		
92G	Hawthorn and ash	C (Low)	Removal	To facilitate development		
93T	Sycamore	**A (High)**	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
94G	Ash	U (Poor)	**Partial Removal**	To facilitate development	Single Ash tree within group requires removal.	
95G	Portugal laurel and goat willow	C (Low)	Removal	To facilitate development		
96H	Privet	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
97H	Privet	C (Low)	Removal	To facilitate development		
98H	Privet	C (Low)	Removal	To facilitate development		
99T	Sycamore	C (Low)	Removal	To facilitate development		
100T	Sycamore	C (Low)	Removal	To facilitate development		
101G	Pear, birch, spotted laurel	C (Low)	Removal	To facilitate development		
102H	Privet and sycamore	C (Low)	Removal	To facilitate development		
103H	Privet	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
104G	Contorted willow, buddleia, maple, privet, ribes	C (Low)	Removal	To facilitate development		
105H	Privet and Leyland Cypress	C (Low)	Removal	To facilitate development		
106G	Lawson cypress and viburnum	C (Low)	Removal	To facilitate development		
107T	Cherry	C (Low)	Removal	To facilitate development		
108H	Privet	C (Low)	Removal	To facilitate development		
109H	Privet	C (Low)	Removal	To facilitate development		
110G	Ash	U (Poor)	None	n/a	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
111T	Ash	U (Poor)	Removal	To facilitate development		
112T	Cupressus spp	C (Low)	Removal	To facilitate development		
113H	Privet	C (Low)	Removal	To facilitate development		
114H	Privet	C (Low)	Removal	To facilitate development		
115G	Prunus spp, cupressus spp and eucalyptus	C (Low)	Removal	To facilitate development		
116H	Privet	C (Low)	Removal	To facilitate development		
117T	Eucalyptus	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
118H	Privet	C (Low)	Removal	To facilitate development		
119T	Hazel	C (Low)	Removal	To facilitate development		
120H	Privet and holly	C (Low)	Removal	To facilitate development		
121T	Magnolia	C (Low)	Removal	To facilitate development		
122H	Privet	C (Low)	Removal	To facilitate development		
123H	Privet m, hawthorn and ash	C (Low)	Removal	To facilitate development		
124H	Lonicera	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
125H	Privet	C (Low)	Removal	To facilitate development		
126H	Privet	C (Low)	Removal	To facilitate development		
127H	Privet	C (Low)	Removal	To facilitate development		
128H	Privet	C (Low)	Removal	To facilitate development		
129H	Privet	C (Low)	Removal	To facilitate development		
130G	Privet, willow, pheasant berry, bamboo	C (Low)	Removal	To facilitate development		
131H	Privet	C (Low)	Removal	To facilitate development		

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
132H	Privet, hawthorn, elm	C (Low)	Removal	To facilitate development		
133H	Privet, sycamore	C (Low)	Removal	To facilitate development		
134G	Buddleia	C (Low)	Removal	To facilitate development		
135H	Hawthorn	C (Low)	Partial Removal	To facilitate development		
136T	Goat Willow	C (Low)	None	N/a	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
137T	Beech	B (Moderate)	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
138T	Beech	A (High)	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
139T	Beech	B (Moderate)	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
140T	Beech	B (Moderate)	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
141T	Silver Birch	U (Poor)	Removal	Due to poor condition		
142T	Beech	**A (High)**	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
143T	Beech	**A (High)**	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
144T	Goat Willow	C (Low)	Removal	To facilitate development		
145T	Silver Birch	B (Moderate)	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
146T	Beech	U (Poor)	Removal	Due to poor condition	Tree recommended for removal or monolithing.	Tree is outside development area and works are the responsibility of the tree owner.
147T	Beech	B (Moderate)	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
148T	Beech	C (Low)	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
149T	Beech	**A (High)**	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
150T	Beech	**A (High)**	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
151T	Beech	U (Poor)	Removal	Due to poor condition	Tree recommended for removal or monolithing.	Tree is outside development area and works are the responsibility of the tree owner.

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
152T	Common Oak	**A (High)**	Low	Pruning required	The easterly lateral canopy requires pruning back to provide clearance for development.	Reduce the easterly lateral canopy by approximately 3m in length and blend into remaining canopy.
			Low	Possible future pruning pressure due to shading and/or other factors	The garden area of the plot 39 is largely unaffected by neighbouring trees, though future cyclic pruning will be necessary to maintain clearance from the tree canopy.	
			Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
153T	Horse Chestnut	**A (High)**	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
154T	Horse Chestnut	C (Low)	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
155T	Common Oak	**A (High)**	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	

Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
156T	Common Oak	**A (High)**	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
157G	2x Common Oak	**A (High)**	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	
158T	Horse Chestnut	B (Moderate)	Low	Direct disturbance to roots	Existing tarmac surface to be removed in a controlled manner and re-instated with no more than 150mm layer of top-soil.	

4.0 General Issues

4.1 Installation of underground services

A preliminary schematic drainage layout has been provided (refer to section 1.3). The proposed drainage does not conflict with proposed retained trees within or adjacent the site.

4.2 Storage of materials, contractor parking and site logistics

Logistically the site has adequate space for the placement of site huts and material storage. By default all compounds and storage areas are to be outside root protection areas/construction exclusion zones.

4.3 Level changes on site

No excavation or raising of ground levels are to occur within the construction exclusion zones within the site demarked by tree protection barrier fencing (green coloured zones) within the Tree Protection Plan. Where ground level changes are to occur adjacent retained trees, retaining structures are required.

4.4 Removal of existing hard surfaces

The development proposals require that sections of existing road/tarmac be removed. Where this occurs in the vicinity of trees it shall be assumed that root ingress has occurred within the sub-base material of the road. As such, some sections of road have been identified within the Tree Protection Plan for controlled removal.

Tree protection fencing is to be initially placed around these zones to ensure that accidental or unintentional disturbance occurs.

It is acceptable that the road surfaces of these zones are removed using plant machinery, however plant machinery must operate from intact road sections (working back), and carefully removing the upper tarmac layer. The operation is to be undertaken under the supervision of the project arboriculturalist.

Once removal of the tarmac layer is completed, a layer of imported top soil is to be laid down for grass seeding or turfing.

5.0 Arboricultural Method Statement

5.1 The Arboricultural Method Statement (AMS) specifies all measures to be undertaken to ensure the ongoing health and viability of trees to be retained within the proposed development.

5.2 This AMS is in compliance with British Standard 5837: 2012. **Accompanying this document is a plan that shows the position of protective fencing and any additional special measures that are required. This plan is referred to as the *Tree Protection Plan*.**

5.3 The AMS must be considered a 'working document'. It must be made available to the developer, site manager, and LPA. A copy of this document and the Tree Protection Plan must be kept on the development site at all times. All site operatives must be briefed on the main contents of this document.

5.4 It is the Site/Project Manager's responsibility to ensure that the detail of this AMS and the TPP and any agreed amendments are known and understood by all site personnel. A copy of this AMS and the TPP will be available for reference on site by the Project and Site Managers, and will form the basis of the management of all works relating to the trees on the site following commencement of the project. The Site Manager shall induct all personnel who could have an impact on trees on the content of this document.

5.5 Tree Works –General Issues

5.5.1 All tree works (tree felling and pruning) are to take place prior to any site operations and immediately before the installation of protective fencing.

5.5.2 All works to the existing trees are to be carried out by a fully qualified tree surgeon and in accordance with BS 3998 (2010) *Recommendations for Tree Work*.

5.5.3 The necessary tree surgery works should be carried out **before** any construction work starts and immediately before erection of protective fencing. Any works will include any trees that require removal in order to facilitate construction and access. No tree works must be carried out unless permission is provided by the local planning authority. Tree works to any protected trees (trees within a Conservation Area or subject to a Tree Preservation Order) that do not require works to directly enable the development to proceed will require a notification/application to be made to the Local Planning Authority. Any tree works required in order to directly facilitate the development to proceed (such as tree felling) must not proceed unless full planning consent and written consent is given by the local planning authority.

5.5.4 Wildlife issues and timing of operations. The following must be observed:

Bats. Under current legislation it is an offence to 'intentionally or recklessly disturb a bat' or 'damage, destroy or block access to the resting place of any bat'. For further details consultation must be made with the Statutory Nature Conservancy Organisation (Natural England, 0300 060 1842 www.naturalengland.org.uk). Where relevant any current ecological surveys for the site will take precedence in this matter.

5.5.5 Birds. It is an offence to kill, injure or take any wild bird; or take, damage or destroy the nest of any wild bird while it is in use or being built. Therefore work likely to disturb nesting birds should be avoided from late March to August.

5.6 Tree Protective Barrier Fencing

5.6.1 Protective barriers must be erected prior to any site operations. The protective barriers are essential to prevent root severance or compaction of the soil in the Root Protection Areas, and so give the best chance of continued good health of the retained trees.

5.6.2 Tree protective barriers are to comprise a vertical and horizontal scaffold framework which is braced to withstand impacts, and not easily moved or relocated by site operatives (to prevent opportunistic moving of the barrier fences). The vertical tubes should be spaced at intervals of no more than 3m and driven securely into the ground. Onto this framework welded mesh panels should be securely fixed (such as Heras). The fencing is to be placed accurately as shown within the Tree Protection Plan.

5.6.2 Two fencing specifications are provided for the site:

1) Full specification barrier fencing including lateral supports for increased durability. This fencing is to be placed where space is present to allow the placement of lateral scaffold supports. The specification is shown in Fig. 1:

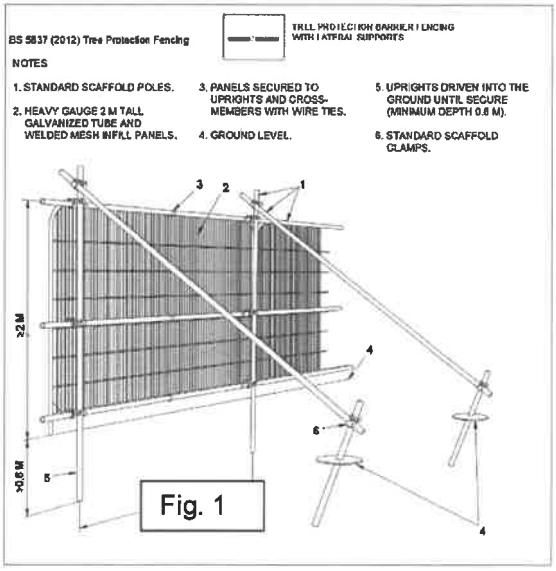
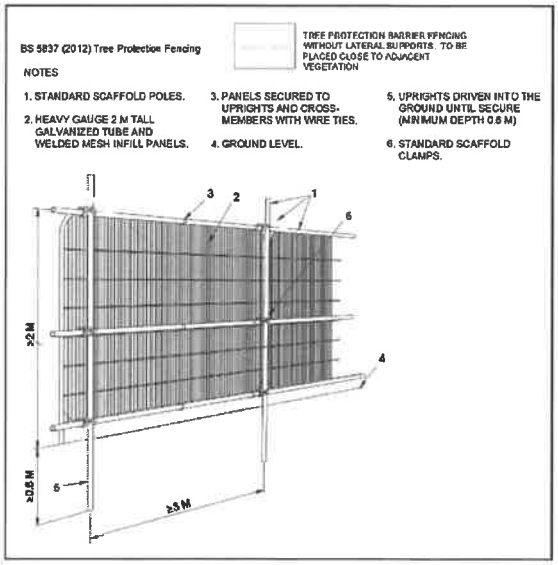
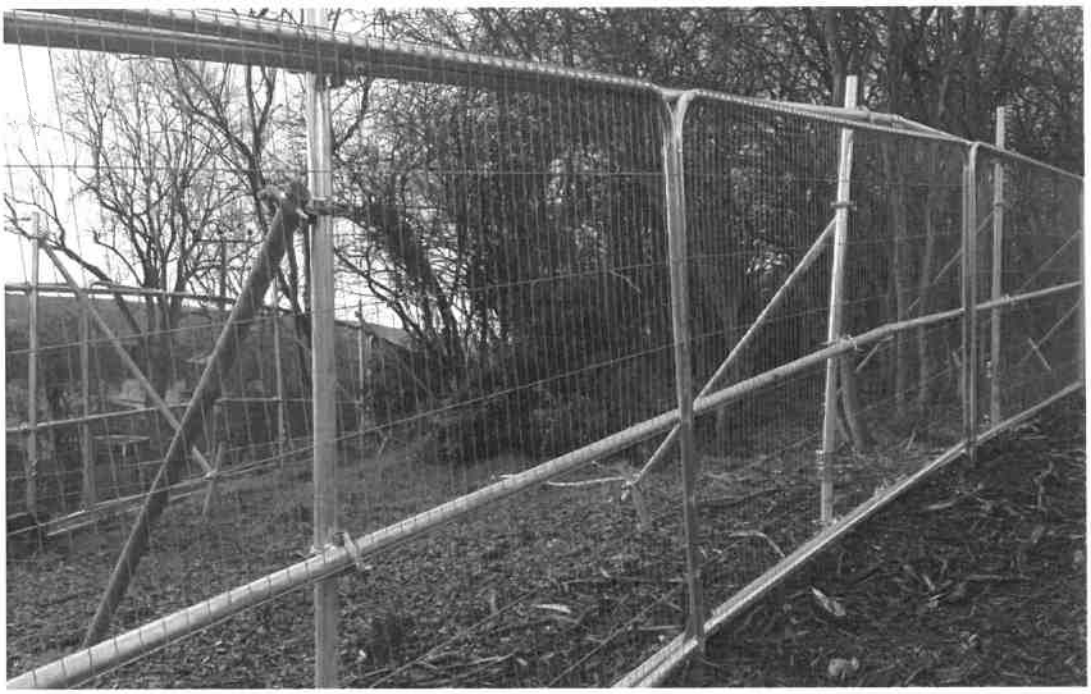


Fig. 1

2) Barrier fencing without lateral supports for fencing that requires placing closely adjacent sections of dense vegetation (Fig. 2).

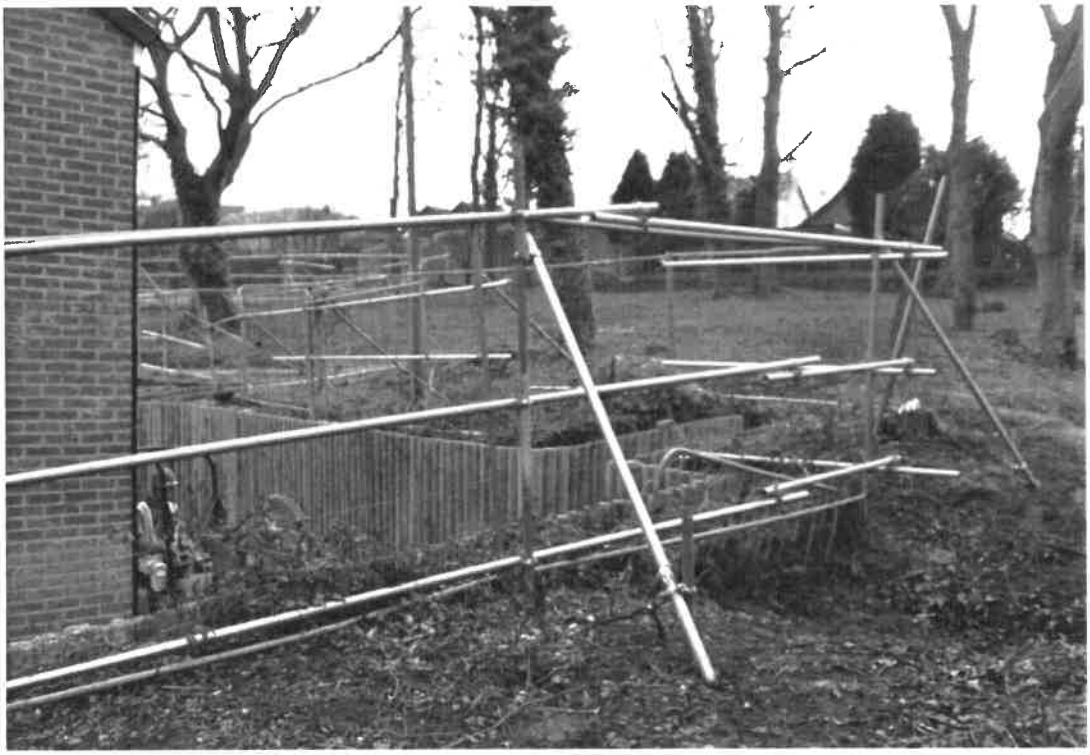


5.6.3 Examples of the correct erection of tree protective barrier fencing



Above: Full specification barrier fencing.

Below: Full specification barrier fencing accurately placed closely adjacent retaining structures



5.7 General Requirements

5.7.1 Developers must enforce the methods of protection identified within the statement. All contractors must also agree to them. Any failure to comply with them must be dealt with by the developer. Any damage that may occur to trees due to failure to observe the method statement must be reported to the Local Planning Authority and arboricultural advice must be sought.

5.7.2 No pruning, lopping, felling or severance of roots is to take place without prior consent of the local authority or unless in compliance with specifications included within the Method Statement.

5.7.3 **The ground levels within the protected areas, be they fenced or special working areas, must neither be raised nor excavated unless specifically in compliance with requirements within this method statement.**

5.7.4 No ropes, cables, services, or notice boards shall be fixed to existing trees.

5.7.5 Fires should not be permitted, or else not lit where flames could extend to within 10m of the foliage, branches or trunk of any trees (it should be noted that local environmental health authorities may have specific restrictions on fires),

5.7.6 Should temporary access within the Root Protection Area be required that is not included within the method statement, an agreement, in advance, with the consultant and the LPA must be made. The fence may need to be re-aligned and the ground surface protected. For vehicular access this protection will need to be specifically detailed and agreed.

5.7.7 Care must be taken in regards to tall or wide loads, or use of plant with booms, jibs and counterweights. Where machinery may be required to operate in the vicinity of trees a banksman must ensure that no direct physical damage is caused to trees. It must be checked that any materials or vehicles entering the site are able to do so without causing damage to adjacent trees.

5.7.8 Any material that will contaminate soil (e.g. concrete mixings, and vehicle washings) must not be discharged within 10m of any Root Protection Area. In addition it is essential that allowance be made for the slope of the ground so that damaging materials cannot run towards trees, or Root Protection Areas. If diesel and fuel containers are used or stored on site they must be kept within a plastic container bund to prevent any ground contamination and spill kits must be kept available to remediate any spillage.

5.8 Arboricultural monitoring

(i) The arboricultural consultant (or local authority Tree Officer) shall be consulted whenever an unexpected issue occurs that involves any retained tree on site including access within the Protection Area.

Mike Gregory (Arboricultural Consultant)

(ii) No amendments shall be made to the methods detailed in this Arboricultural Method Statement without the agreement of the consultant or local planning authority Tree Officer.

(ii) If the site agent is at all unclear about exact compliance with any of the above requirements, or if requested by any other party, then a pre-start meeting shall be arranged with the architect, site agent, local authority tree officer and arboricultural consultant in attendance as necessary.

5.9 Health and Safety Issues

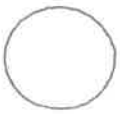
All operations must be carried out with full regard to Health and Safety requirements. Due to the diverse nature of recommendations included (e.g. tree surgery works, construction etc) it is necessary that supervisors of those undertaking recommended operations undertake risk assessments prior to starting the relevant works. It should be the Site Managers/developers responsibility to ensure that risk assessments are submitted prior to undertaking relevant works.

6.0 Method Statement Schedule

<table>
<tr><th>Phase</th><th>Requirements</th><th>Method</th></tr>
<tr>
<td>1

Prior to erection of protective fencing.</td>
<td>Undertake tree and vegetation removal

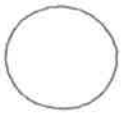
Trees/vegetation to be removed:

  </td>
<td>Refer to section 5.5 of AIA/MS report.

All tree works to be carried out to BS3998: 2010: by suitably qualified and insured professional tree surgeons.

The following tree felling must be undertaken at this Phase:
<table>
<tr><th colspan="4">Items requiring removal:</th></tr>
<tr><td>2G</td><td>Mixed Species</td><td>55T</td><td>Juniper</td></tr>
<tr><td>4H</td><td>Hornbeam & Blackthorn (partial removal only)</td><td>56T</td><td>Ash</td></tr>
<tr><td>5G</td><td>Mixed Species</td><td>57T</td><td>Ash</td></tr>
<tr><td>6T</td><td>Yew</td><td>58H</td><td>Privet</td></tr>
<tr><td>7T</td><td>Beech</td><td>59H</td><td>Privet</td></tr>
<tr><td>8T</td><td>Yew</td><td>60T</td><td>Scots Pine</td></tr>
<tr><td>9T</td><td>Ash</td><td>61T</td><td>Goat Willow</td></tr>
<tr><td>10T</td><td>Silver Birch</td><td>66G</td><td>Cypress, Cherry, Apple</td></tr>
<tr><td>11T</td><td>Ash</td><td>67H</td><td>Privet</td></tr>
<tr><td>12G</td><td>Ash, Elm & Oak</td><td>68H</td><td>Privet</td></tr>
<tr><td>13H</td><td>Beech & Privet</td><td>69H</td><td>Privet</td></tr>
<tr><td>14T</td><td>Apple</td><td>70H</td><td>Privet</td></tr>
<tr><td>15T</td><td>Apple</td><td>71T</td><td>Apple</td></tr>
<tr><td>16T</td><td>Ash</td><td>72H</td><td>Privet</td></tr>
<tr><td>17H</td><td>Privet</td><td>73H</td><td>Privet</td></tr>
<tr><td>18T</td><td>Goat Willow</td><td>74H</td><td>Privet</td></tr>
<tr><td>19T</td><td>Ash</td><td>76T</td><td>Ash</td></tr>
<tr><td>20T</td><td>Oak</td><td>87T</td><td>Sycamore</td></tr>
<tr><td>21G</td><td>Elm & Prunus</td><td>88G</td><td>Ash, Sycamore and Elm</td></tr>
<tr><td>22G</td><td>Cherry Laurel</td><td>89G</td><td>Ash</td></tr>
<tr><td>24T</td><td>Ash</td><td>90T</td><td>Cherry</td></tr>
<tr><td>25H</td><td>Privet</td><td>91G</td><td>Ash, Hawthorn, Elder, Sycamore</td></tr>
<tr><td>26G</td><td>Hawthorn, Privet & Maple</td><td>92G</td><td>Hawthorn & Ash</td></tr>
<tr><td>27G</td><td>4x Lawson Cypress</td><td>94G</td><td>Ash (partial removal only refer to plan).</td></tr>
<tr><td>28T</td><td>Sycamore</td><td>95G</td><td>Portugal Laurel and Goat Willow.</td></tr>
<tr><td>29T</td><td>Atlas Cedar</td><td>96H</td><td>Privet</td></tr>
<tr><td>30H</td><td>Privet</td><td>97H</td><td>Privet</td></tr>
<tr><td>31G</td><td>Maple, Birch & Lonicera</td><td>98H</td><td>Privet</td></tr>
<tr><td>32T</td><td>Silver Birch</td><td>99T</td><td>Sycamore</td></tr>
<tr><td>33T</td><td>Oak</td><td>100T</td><td>Sycamore</td></tr>
<tr><td>34H</td><td>Cypress</td><td>101G</td><td>Pear, Birch, Spotted laurel</td></tr>
<tr><td>35G</td><td>Privet</td><td>102H</td><td>Privet & Sycamore</td></tr>
<tr><td>36G</td><td>2x Goat Willow</td><td>103H</td><td>Privet</td></tr>
<tr><td>37T</td><td>Lawson Cypress</td><td>104G</td><td>Willow, Buddleia, maple, Privet & Ribes.</td></tr>
<tr><td>38T</td><td>Cupressus species</td><td>105H</td><td>Privet 7 Leyland Cypress</td></tr>
<tr><td>39H</td><td>Hawthorn</td><td>106G</td><td>Lawson Cypress 7 Viburnum</td></tr>
<tr><td>40T</td><td>Goat Willow</td><td>107T</td><td>Cherry</td></tr>
<tr><td>41H</td><td>Privet</td><td>108H</td><td>Privet</td></tr>
<tr><td>42T</td><td>Prunus species</td><td>109H</td><td>Privet</td></tr>
<tr><td>43T</td><td>Cherry</td><td>111T</td><td>Ash</td></tr>
<tr><td>44T</td><td>Alder</td><td>113H</td><td>Privet</td></tr>
<tr><td>45G</td><td>2x Lawson Cypress</td><td>114H</td><td>Privet</td></tr>
<tr><td>46H</td><td>Privet</td><td>115G</td><td>Prunus, Cupressus and Eucalyptus</td></tr>
<tr><td>47G</td><td>Laurel, Rose & Lilac</td><td>116H</td><td>Privet</td></tr>
<tr><td>48T</td><td>Rowan</td><td>117H</td><td>Eucalyptus</td></tr>
<tr><td>49G</td><td>Alder & Birch</td><td>118H</td><td>Privet</td></tr>
<tr><td>50H</td><td>Privet</td><td>119T</td><td>Hazel</td></tr>
<tr><td>51T</td><td>Ash</td><td>120H</td><td>Privet & Holly</td></tr>
<tr><td>52T</td><td>Juniper</td><td>121T</td><td>Magnolia</td></tr>
<tr><td>53H</td><td>Blackthorn</td><td>122H</td><td>Privet</td></tr>
<tr><td>54G</td><td>Blackthorn, Ash & Hazel</td><td>123H</td><td>Privet, Hawthorn & Ash</td></tr>
</table>
</td>
</tr>
</table>

<table>
<tr><th>Phase</th><th>Requirements</th><th>Method</th></tr>
<tr><td>2
Prior to erection of protective fencing.</td><td>Undertake tree and vegetation removal and pruning works

Trees/vegetation to be removed:
 
Trees/vegetation to be pruned:
  </td><td>Refer to section 5.5 of AIA/MS report.

All tree works to be carried out to BS3998: 2010: by suitably qualified and insured professional tree surgeons.

The following tree felling <u>must</u> be undertaken at this Phase:

<table><tr><th colspan="4">Items requiring removal:</th></tr><tr><td>124H</td><td>Lonicera</td><td>132H</td><td>Privet, Hawthorn & Elm</td></tr><tr><td>125H</td><td>Privet</td><td>133H</td><td>Privet & Sycamore</td></tr><tr><td>126H</td><td>Privet</td><td>134G</td><td>Buddleia</td></tr><tr><td>127H</td><td>Privet</td><td>135H</td><td>Hawthorn</td></tr><tr><td>128H</td><td>Privet</td><td>141T</td><td>Silver Birch</td></tr><tr><td>129H</td><td>Privet</td><td>144T</td><td>Goat Willow</td></tr><tr><td>130G</td><td>Privet, Willow, Bamboo</td><td>146T</td><td>Beech (may be monolithed)</td></tr><tr><td>131H</td><td>Privet</td><td>151T</td><td>Beech (may be monolithed)</td></tr></table>
The following tree pruning <u>must</u> be undertaken at this Phase:

<table><tr><th colspan="2">Items requiring pruning:</th></tr><tr><td>3G</td><td>4x Hornbeam. Prune back the lateral canopy spread to the north (over the site) back to the site boundary, to provide clearance.</td></tr><tr><td>4H</td><td>Retained sections of the hedge require trimming/restructuring to contain the height and spread.</td></tr><tr><td>62H</td><td>Privet & Elm. Trim the lateral sections of the hedge on the site side to tidy & contain.</td></tr><tr><td>152H</td><td>Common Oak. Reduce the easterly lateral canopy by approximately 3m in length and blend into remaining canopy.</td></tr></table></td></tr>
<tr><td>3
Prior to any construction works on site</td><td>Erection of protective fencing:

To retain throughout the duration of the development:

Full specification fencing with lateral supports:
 

Scaffold braced mesh adjacent dense vegetation:
</td><td>Protective fencing is to be erected in accordance with 5.6 of AIA/MS report.

The fencing must comply with the positions shown in the Tree Protection Plan. A scale copy of the Tree Protection Plan must be used as reference and fencing positions measured from the Plan using a scale rule and/or using the provided distances where shown.

No works, no storage of materials, no access, or any ground disturbance is to take place within the Tree Protection Barrier Fencing other than works specified within the Arboricultural Method Statement. Fenced areas are to be treated as Construction Exclusion Zones.

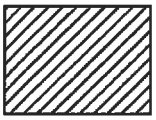
Warning signs to be placed on all protective fencing. For large sections of fencing the signs must be placed at 20m intervals.

Signs must be laminated and securely attached at all corners. Two signs are to be placed side by side; copies of which are attached within Appendix A.</td></tr>
<tr><td>4
Verifying quality of protective barriers</td><td>Verify that the location and quality of tree protection barriers is adequate prior to onset of main site works.</td><td>Site visit with Arboricultural Consultant and Site Manager.

Tree Officer to be pre-informed of visit.

In order for set works to proceed the pro-forma in Appendix B. of the AIA/AMS report is to be completed and passed on to the local planning authority:

If the protective barriers are not adequately, work is not to proceed until rectified.</td></tr>
</table>

Phase	Requirements	Method
5 Demolition	Maintain protective fencing during demolition	The demolition must take place around tree protective fencing, where fencing has been erected. This will result in constrained working areas where root protection areas are present adjacent structures to be removed. In such cases demolition must take place within the root-print of the building using a 'pull down, pull back' approach. Where existing sections of hard surface fall within tree protection areas, existing access routes within the site may be constrained. In such cases demolition must take place around fencing, creating new accesses where existing structures are present. Should it be deemed necessary to access within a Construction Exclusion Zone, a addendum report will be required alternative protection measures within tree protection areas, such as use of heavy duty ground protection boards.
6 Removal of roadside edge	Controlled removal of existing structures and hard surfaces 	1, Present during the work must be the project arboriculturalist, site manager and site operatives. 2. Prybars and/or jackhammer to be used to break edges of the existing road. Kerbs to be carefully extracted. 3. A mechanical digger to be used to 'peel' away hard surfaces as necessary. 4. Mechanical plant is to operate from the intact surfaces of hard surfaces, working back. 5. The sub-base of exposed sections of road to be regularly checked by the project arboriculturalist for the presence of roots. If roots are encountered, the project arboriculturalist will advise on whether further excavation shall take place, or how further excavation shall occur. A layer of no-more than 150mm depth good quality top soil to be placed over the removed hard surface to allow for subsequent laying of turf.
7 Completion of main construction and undertaking of landscaping	Landscaping and Dismantling of tree barrier protective fencing.	It is essential that ground levels within the root protection areas are not altered, either by raising or lowering soil levels; even at the landscaping stage. Landscaping operations must be undertaken in a manner that will not impact trees. Landscaping within the root protection area of trees must be undertaken in the following manner: 1. Any existing ground flora (grass/weeds/scrub) is to be sprayed with a systemic herbicide and left to die-off. 2. Dead flora is to be strimmed as hard as possible with a brush cutter or similar. The bulk of the strimmed material is to be removed by raking. 3. A good quality organic topsoil layer may be placed down. Small depressions may be filled (and **lightly** compacted underfoot). Placed topsoil soil layers **must not exceed** 100mm depth. 4. No plant machinery operating within the root protection areas to exceed 1 tonne gross weight and must only operate from propriety ground protection boards such as DuraMatt Access Matts (see **Appendix C**). 5. Turf and other planting to proceed thereafter.

Phase	Requirements	Method
8 Completion of main construction and installation of boundary treatments	Garden and perimeter fencing within RPA of retained trees	In addition to the points addressed in 7 above, within RPAs of retained trees the wooden fencing shall be installed as follows: 1. Hand tools only 2. Exploratory post holes to be dug. Any roots encountered less than 2.5cm diameter should be cleanly cut back. 3. Roots in excess of 2.5cm can only be removed once arboricultural advice has been sought. 4. Where roots in excess of 8cm are encountered, an alternative location for the post hole is required. 5. Prior to the pouring of concrete a non-permeable membrane must fully line the post hole.

APPENDIX A - SIGNS TO ATTACH TO PROTECTIVE FENCING

Construction and Trees

Why Is Fencing Erected Around Trees?

1. The major cause of damage to trees on construction sites is due to **soil compaction**.
2. Roots use the spaces between soil particles to obtain Oxygen, Water and Nutrients.
3. Heavy plant and machinery compresses (compacts) the soil, squashing out the air spaces and preventing root function.
4. A compacted soil structure will stay compacted.
5. Consequently the tree suffers and will show signs of branch die-back.
6. Symptoms such as die-back may take several years to appear.
7. Soil compaction over roots can be prevented by maintaining a fenced exclusion zone over the tree roots.
8. The exclusion zone distance is calculated using British Standard 5837.
9. Protective Fencing is installed at the calculated distance.
10. Protective Fencing is a condition of planning approval, if it is removed or repositioned the construction firm is in breach of a condition and may be subjected to legal action.

APPENDIX B – Site Inspection pro-forma

SITE INSPECTION - ARBORICULTURAL METHOD STATEMENT (Ref: MG/6399/AIA&AMS/DEC20)

Name of Arboricultural Inspector:

Date of Inspection:

The purpose of this site inspection is to confirm with requirements within the above referenced Arboricultural Method Statement.

The site is to be visited and the placement of tree protection barrier fencing checked for compliance with specifications within the method statement.

Further works on the site shall not proceed until the tree protective fencing is installed in compliance with the method statement and in submitting this document to the Local Planning Authority the inspector is verifying that the necessary specifications have been met.

Notes (continue on separate attachments as necessary):

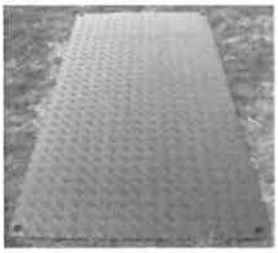
Photographs: (attach below):

APPENDIX C – GROUND PROTECTION BOARDS

(to be used for light plant access when undertaking temporary operations within the root protection areas of trees- such as fencing and landscaping)

DuraMatt Single Sided Access Mat - 2400mm x 600mm x 10mm - 17kg

Product Code: DURA-2400600175S



MultiMatts are the market leading provider of temporary access and ground protection solutions. Temporary Access and Ground Protection Mats are now an essential requirement for the construction, civil engineering and groundwork industries, although they're also used extensively within the festival and outdoor event sectors.

Our DuraMatt - Light/Medium Duty Access Mat is manufactured from 100% recycled Low Density Polyethylene (LDPE) and weigh just 17kg. DuraMatt is ideal for both short and long term projects and can be used in a variety of applications.

DuraMatt is capable of taking weights of 15-20 tonnes* depending on the ground conditions, they've also been designed with a connection hole in each corner should the mats need to be connected together.

DuraMatt has a unique diamond pattern "non-slip" surface on one side, the other side has been left smooth for working on hard standing areas and sensitive grass, it also allows contractors to use the mat as a spoil board for construction materials. It's flexible nature allows the mats to follow the contours of the ground to deliver highly effective access over undulating or sloping terrain.

Standard colour option is Grey - Please contact us for other colours or customisation.

Key Applications

- Ground Work Spoil Boards
- Temporary Roadways and Car Parks
- Pedestrian Walkways
- Heritage sites; Eco Sensitive areas
- Sports and Leisure Events
- Golf Course and Sports Field Maintenance
- Ground Protection
- Emergency Access Routes
- Utilities
- Infrastructure Maintenance

Key Features and Benefits

- 2.4m x 0.6m x 10mm - Weight 17kg
- Maximum Weight loading approx. 15-20 tonnes*
- Unique diamond pattern "non-slip" surface for optimal grip
- Avoids health and safety issues
- Avoids property, heritage and environmental damage and reinstatement
- Avoids vehicles becoming bogged down
- Low transportation and handling costs
- Various connection options for different ground conditions and equipment
- Premium 100% recycled (LD) polyethylene which is 100% recyclable

END OF DOCUMENT