

Amendments/Additional Information

- Amended layout of buildings/outside areas
- Additional background information
- Amended design
- Revised access arrangements
- Change of description of proposed development
- Change in site boundaries
- Other (as specified below)

AMENDED

NYMNP

31/10/2017



elliottconsultancyld.
arboricultural consultants



Location:
**Thirley Cotes Farm
Harwood Dale**

Report Type:
**Arboricultural Survey
Arboricultural Impact Assessment
Arboricultural Method Statement
Tree Protection Plan**

Ref:
ARB/AE/1671

Date:
October 2017

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Contents

- 1 Introduction
- 2 Site Information
- 3 Tree Quality Assessment
- 4 Design Proposals and Arboricultural Impact Assessment
- 5 Arboricultural Method Statement - Pre-construction & Site Preparation Works
- 6 Arboricultural Method Statement - Tree Protection measures During Access Construction
- 7 Arboricultural Method Statement - Post-Construction Considerations

Appendices

- 1 Tree details
- 2 Photographs
- 3 Arboricultural Tasks Sequence Table
- 4 Construction Exclusion Zone Notice
- 5 Protective Fencing Specification
- 6 Tree Constraints Plan
- 7 Tree Protection Plan

1 Introduction

- 1.1 This report has been prepared by Andrew Elliott of Elliott Consultancy Ltd on behalf of the applicant.
- 1.2 Elliott Consultancy Ltd was commissioned to visit the site to inspect the trees and to produce an arboricultural report in accordance with British Standard 5837:2012 '*Trees in Relation to Design, Demolition & Construction*'. An initial inspection of the trees was undertaken on the 24th October 2017.
- 1.3 **Scope of the report:**
- This report provides arboricultural information and advice in relation to the proposed changes to the access, rear parking areas, and landscaping – as shown within Appendix 7.
 - It should be used to guide the construction process in order to minimise potential damage to retained trees.
 - Section 4 provides a summary of the design proposals and their impact on the current tree population.
 - Sections 5-7 provide a method statement that details all measures recommended for adequate tree protection including any special construction measures to be utilised.
 - Within the Arboricultural Tasks Sequence Table (Appendix 3), is a timescale for implementation of these tree works and protective measures in reference to the development period.
- 1.4 Trees can be protected by Tree Preservation Order or by merit of location within a Conservation Area; advice should be sought from the relevant planning department if such restrictions have been placed on the site.
- 1.5 **Prior to site works commencing, the Arboricultural Method Statement needs to be passed to the site manager or contractor and used as reference during the development period, with particular attention paid to Sections 5-7, and Appendices 3-7.**

2 Site Information

- 2.1 Thirley Cotes Farm is a group of converted farm buildings and cottages that serve as holiday accommodation. Access to the site is directly from Waite Lane to the east. Figure 1 shows the extent of the site:



Figure 1: Site extent highlighted

- 2.2 Tree cover within the site is limited to trees around the periphery as shown on plan. Tree cover to the north of the site (offsite) is dense including young broadleaved plantations providing considerable screening.
- 2.3 Any visibility constraints encountered are noted within the survey data (Appendix 1).

3 Tree Quality Assessment

3.1 BS5837:2012 notes that all trees apart from those with stem diameters <150mm or classified as Category U should be viewed as a site constraint. When inspected, each tree and or group feature is assigned one of four categories that signify how suitable that tree/group would be for retention within any development proposals, and therefore the degree to which it should constrain the site. The four categories are as follows:

3.2.1 **Category A** trees are those of high quality and value, and of a condition whereby they could make a substantial contribution to the site. Such trees should be retained and offered adequate consideration during the design phase and physical protection during the construction phase in accordance with BS 5837:2012. This means keeping proposed features and alterations to ground levels outside of root protection areas and crown spreads to ensure that trees remain in adequate condition post-development.

3.2.2 **Category B** trees are those of moderate quality and value, and of a condition that still make a substantial contribution to the site. Category B trees should be retained wherever possible and offered adequate consideration during the design phase and physical protection during the construction phase in accordance with BS 5837:2012.

3.2.3 **Category C** trees are considered to be of low quality and value, or lacking stature, but of an adequate condition to remain in the short-term. These trees can also be retained if required but where they form a significant constraint to development their removal should be considered. Where they are to be retained they should be afforded adequate consideration during the design phase and physical protection during the construction phase in accordance with BS 5837:2012.

3 Tree Quality Assessment (cont)

3.2.4 **Category U** trees are of such a condition that any existing value would be lost within 10 years. As a result it is recommended that Category U trees are not considered a constraint for development and are removed prior to construction commencing.

3.3 In addition to the four main categories explained above, each tree/group is assigned a sub-category which signifies its overriding value as determined by the surveyor, which is noted by adding a suffix of 1, 2 or 3 alongside the category letter. 1 signifies that the trees/groups main value is arboricultural e.g. it may be a particularly good example or may be rare. A 2 signifies that the overriding factor was due to the landscape value that the tree/group provides e.g. it may be part of a group feature such as a screen. A 3 indicates that a cultural factor was the overriding value e.g. it may have historical or commemorative importance.

4 Design Proposals and Arboricultural Impact

4.1 This section concentrates on the proposals and how they relate to the current trees within the site. The proposal includes an extension to the access driveway that will bring car access and parking along the northern boundary wall, with separate gardens being created to the cottages with stone wall boundaries. (as shown within Appendix 7), and re-surfacing of the present gravel access in tarmac (with all parking bays close to trees remaining gravel finished).

4.2 **Potential Conflict 1: Loss of trees due to the extension to the access driveway and the creation of parking bays.**

No trees are required to be removed to construct the extension.

Mitigation / Countermeasure: No countermeasures or mitigation is required.

4.3 **Potential Conflict 2: Damage to Trees due to the extension to the access driveway and the creation of parking bays.**

The location of the access driveway and parking bays is close to, and within, the Root Protection Areas (RPA's) of Trees 1, 2, 4, & 7 and damage could occur to any underlying root tissue, and / or overhanging branches during construction.

Mitigation / Countermeasure: The encroachments into the RPA's as shown on plan are considered minimal, and as the trees are so young and vigorous, and the proposals so relatively lightweight in nature and extent, it is not expected that any significant detrimental long-term impacts will be experienced by the trees. Prior to construction of the access and parking bays overhanging branch tissue from Trees 1-7 will be crown-lifted to 2.5-3m to allow vehicular clearance, following this protective fencing will be installed prior to construction as shown within Appendix 7.

4.4 **Potential Conflict 3: Damage to trees due to the construction process.**

During any construction process trees can be damaged due a variety of reasons and construction pressures.

Mitigation / Countermeasure: The trees on site can be protected during the construction process by the agreed construction exclusion zone shown within Appendix 7 being fenced off using Heras type panels, securely bolted and braced to prevent movement and resist impact (see Appendix 5).

5 Pre-Development and Site Preparation Works

- 5.1 Refer to Appendix 3 for stage specific tasks.
- 5.2 Prior to any further site works the trees (1-7) require crown-lifting to allow vehicular access - this work must be undertaken by a suitably experienced Arborist and be in accordance with BS3998 'Tree works – Recommendations' 2010. Following which tree protection barriers need to be erected in order to protect the trees from damage; this must remain in situ during the entire build process. The fencing needs to be erected according to the locations found on the Tree Protection Plan (Appendix 7). The fence should conform to the specification within Appendix 5, unless a similarly immovable alternative is agreed with the Local Planning Authority. All weather notices should be attached to the fencing marked with the following: '*Construction Exclusion Zone - Keep Out*' (a notice is provided within Appendix 4).

6 Tree protection measures during access construction

- 6.1 Refer to Appendix 3 for stage specific tasks.
- 6.2 All ground levels where trees are located should be maintained. Changes to soil levels adjacent to trees can severely affect the trees structural integrity and its ability to gain moisture and nutrients from the surrounding soil. Unavoidable level changes that may affect retained trees, and not already accounted for within this method statement, should be assessed by a qualified arboriculturalist so that any remedial works can be undertaken.
- 6.3 Building material storage and operations that can contaminate soil, such as cement mixing, must be confined to areas outside the tree protection areas (see appendix 7).
- 6.4 Fires should not be lit within 5m of the foliage or drip line of the tree. Care should be taken and the fire should not be allowed to become large, and the wind direction noted.
- 6.5 The trees should not be used to attach notices, cables or other services.
- 6.6 At the beginning of the construction phase, the site manager will appoint a delegated site representative who shall be responsible for continued checking of the protective fencing to ensure it is compliant with the exclusion zone.

7 Post-Construction Considerations

- 7.1 Refer to Appendix 3 for stage specific tasks.

- 7.2 Only once all construction works have been completed can the protective fencing and any ground protection be removed.

Appendix 1: Tree Data

Key to tree survey headings:

- **Tag** – Tree number corresponding to plans & tags
- **Species** – Common name of each tree
- **DBH** – 'Diameter at breast height' in mm taken on stem at 1.5m.
- **Hgt** – Height in metres of each tree
- **Crown spread: North, South, East, West** – Crown spread in metres to x4 cardinal points from centre of stem
- **CH** – Crown clearance from ground to lowest branches
- **EstD** – Estimated dimensions
- **Age** – Age-class of tree: Y = Young, SM = Semi-mature, M = Mature, OM = Over-mature.
- **General observations** – details both Physiological and structural Condition
- **Est Con** – Estimated life expectancy / contribution to the landscape (in years): 0-10, 10-20, 20-40, 40+
- **Recommendations** – Any recommendations that, regardless of land use, require attention.
- **BS. Cat** – Retention category. **A, B, C**, or **U**. For retained trees **A** being of the highest quality, **C** being the lowest. Category **U** trees for removal regardless of design. Category A, B, & C are given sub-categories 1, 2, & 3 – details of which are shown in appendices.

Tree Survey Data - Thirley Cotes Farm, Harwood Dale.

No.	Species	Age	DBH	Stems	Height	Crown Spread				CH	EstD	General Observations	EstCont	BS Cat	Recommendation
						N	S	E	W						
1	Common Oak	SM	29	1	7	4	4	3	5	2	N	Minor crown suppression.	40+	B1	No work required
2	Lime spp	SM	24	1	10	2	2	3	2	2	N		40+	B1	No work required
3	Holly	SM	14	1	7	1	2	3	2	1	N		40+	C1	No work required
4	Norway Spruce	SM	38	1	12	2	4	4	3	2	N		40+	B2	No work required
5	Whitebeam	SM	15	1	10	2	4	2	3	2	N	Co-dominant stems at base with bark inclusion. Suppressed form.	10+	C1	No work required
6	Rowan	SM	22	5+	9	2	3	2	2	3	N	Multi-stemmed at base with bark inclusions. Poor form.	20+	C1	No work required
7	Beech	SM	27	1	9	2	5	3	3	1	N	Suppressed form. Poor crown form with bark damage, crossing branches etc.	20+	C1	No work required
8	Horse Chestnut	Y	10	1	4.5	2	2	2	2	1.5	N	Poor form - poor branch unions throughout crown.	20+	C1	No work required
9	Ash	SM	30	1	10	4	4	4	4	2	N		40+	B1	No work required
10	Blue Spruce	SM	21	1	6	3	3	3	3	1.5	N	Minor crown suppression by Tree 9.	40+	B1	No work required

No.	Species	Age	DBH	Stems	Height	Crown Spread				CH	EstD	General Observations	EstCont	BS Cat	Recommendation
						N	S	E	W						
11	Cherry spp	SM	20	5+	4	3	2	3	3	2	N	Multi-stemmed	20+	C1	No work required

Group Data - Thirley Cotes Farm, Harwood Dale.

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
1	Holly Whitebeam Spruce spp		20	10	SM	2	Small group of trees in corner of garden. This group includes Trees 1-7 which are the dominant / front row of the group - these were all detailed individually. Generally low value individual trees but with some group screening value / function.	No work required	20+	B2
2	Common Alder		12	10	SM	2	3 lines of trees 4m off wall. Beyond these lines appears to be a young mixed broad-leaved plantation.	No work required	40+	C2
3	Cherry spp Holly	Spruce spp Oak spp	30	10	SM	3	Line of x6 Cherry - cleared under / bark chipped - with screening trees to each side. New parking bays recently installed. Young woodland beyond. Central Cherry - largest of the group - has fungi - <i>pholiota squarrosa</i> - infection (decay causing organism).	Consider removal of central diseased Cherry	40+	B2

Appendix 2: Photographs



Figure 1: Looking west towards rear garden – note end of access driveway.



Figure 2: Looking east towards Trees 1-7 – area for proposed access drive and parking.



Figure 3: Group 2.



Figure 4: Trees 8-10 (l to r)



Figure 5: Trees within Group 3 - new parking bays



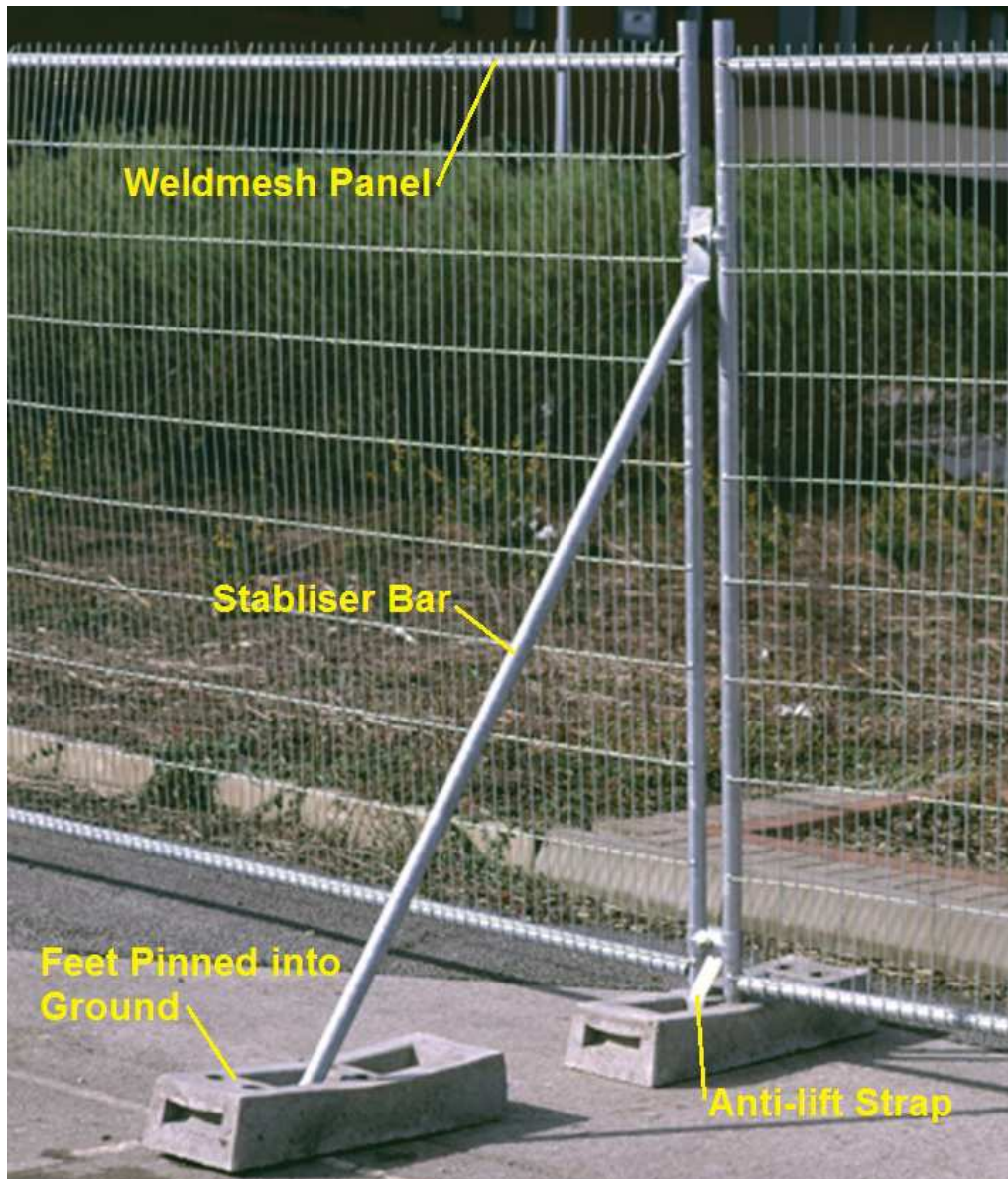
Figure 6: Central Cherry in Group 3 - note fungal fruiting bodies at base

Appendix 3: Arboricultural Tasks Sequence Tables

Tree or Group Number	Pre-Demolition & Construction Stage	Construction Stage	Post Construction Stage
Trees 1-7	Crown-lift to 2.5-3m only over access & parking bay	Install the new access driveway and parking bays.	
All trees.	<p>Adhere to Section 5.</p> <p>Set out and erect protective fencing as per Appendices 5 & 7.</p> <p>Attach notice in Appendix 4.</p>	<p>Adhere to specification within Section 6.</p> <p>Monitor integrity of fencing and tree protection area.</p>	<p>Adhere to specification within Section 7.</p> <p>Remove tree protection measures.</p>



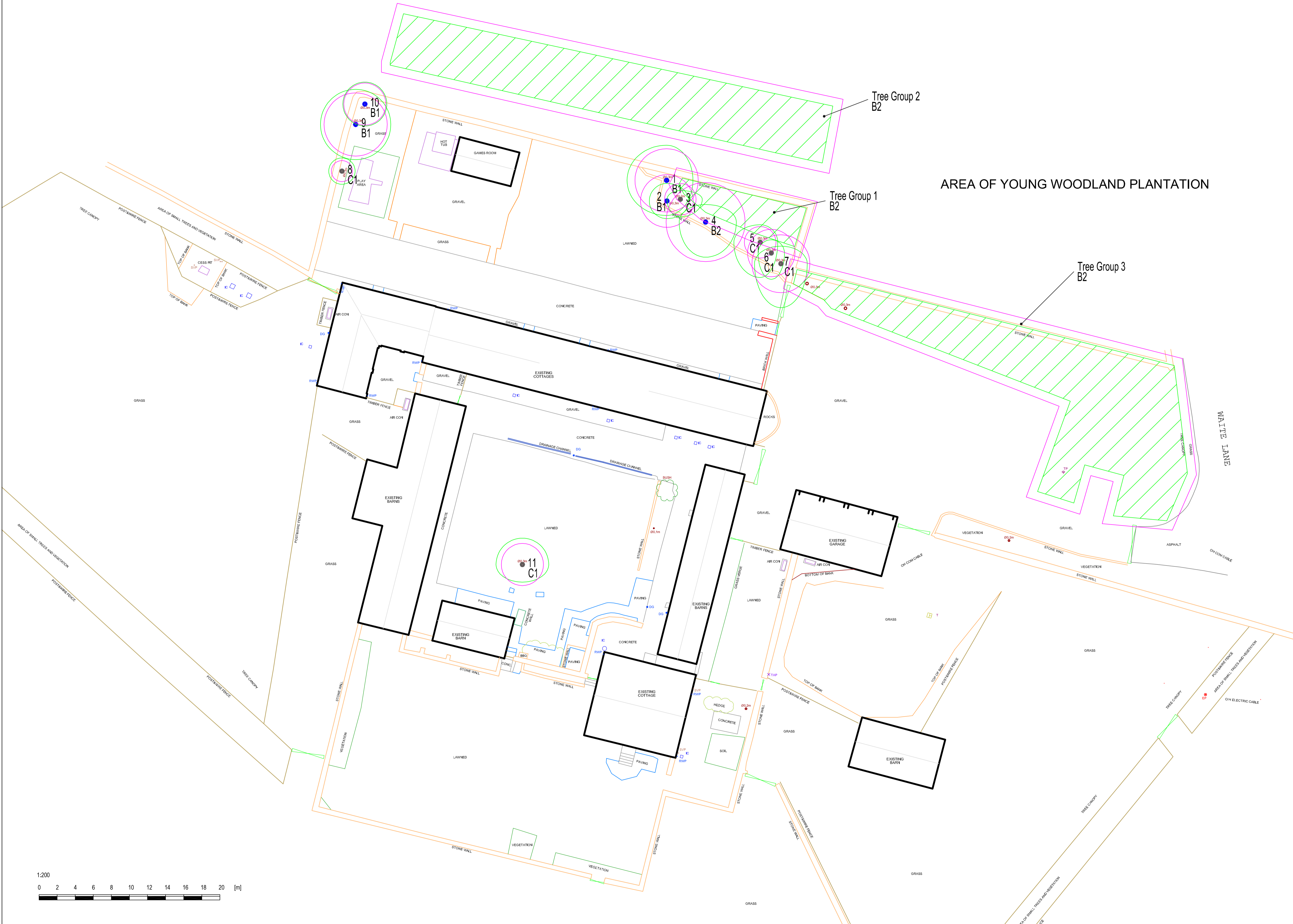
Appendix 5: Protective Fencing Specification









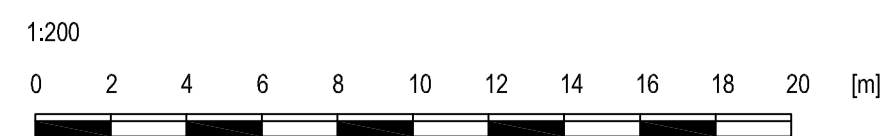


AREA OF YOUNG WOODLAND PLANTATION

AREA OF YOUNG WOODLAND PLANTATION



-  Tree Position Showing Crown Extents and BS5837 Category A
-  Tree Position Showing Crown Extents and BS5837 Category B
-  Tree Position Showing Crown Extents and BS5837 Category C
-  Tree Position Showing Crown Extents and BS5837 Category U
-  Root Protection Area - to remain free from disturbance
-  Group of Trees
- 1/G1 Tree/Group
- A1/B1/
C1/U BS5837 Retention Category



APPENDIX 6

Drawing Title: Tree Constraints Plan

Project: Thirley Cotes Farm

Drawing Number: ARB/AE/1671/TCP

Date: October 2017

Scale: 1:200 @ A1



AREA OF YOUNG WOODLAND PLANTATION



- Tree Position Showing Crown Extents and BS5837 Category A
- Tree Position Showing Crown Extents and BS5837 Category B
- Tree Position Showing Crown Extents and BS5837 Category C
- Group of Trees
- 1/G1 Tree/Group
- A1/B1/
C1/U BS5837 Retention Category
- Tree Protection Fence