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arboricultural consultants



Location:
**Land at Ripleys Farm
Ripley Lane
Cloughton**

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

Ref:
ARB/AE/2273

Date:
October 2019

NYMNPA

24/10/2019

AMENDED

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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 23rd October 2019.
- 1.3 **Scope of the report:**
- This report provides arboricultural information and advice in relation to the proposed construction on the site of a new grain storage building – as shown within Appendix 3.
 - 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 5-6 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 2), is a timescale for implementation of any 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 5-6, and Appendices 2-3.**

2 Site Information

- 2.1 Ripleys farm lies at the end of Ripley Lane and is to the west of Cloughton Village. Figure 1 shows the extent of the house and farm buildings:



Figure 1: Site.

- 2.2 Tree cover pertinent to the proposals includes the large tree group to the north of the present buildings shown above. The trees were assessed as a single cohesive group, with the four nearest trees surveyed individually to assist in protection recommendations. Tree survey data is included in Appendix 1.
- 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 on the site (as shown within Appendix 3). The proposals include the construction of a new single barn covering the footprint previously covered by several buildings and structures (some now removed).

4.2 **Potential Conflict 1: Loss of trees to allow construction.**

No trees are required for removal to allow the construction of the barn.

Mitigation / Countermeasure: No mitigation or countermeasures are required.

4.3 **Potential Conflict 2: Damage to retained trees during construction.**

Retained trees may be damaged due to excavation and root removal, or due to pruning requirements.

Mitigation / Countermeasure: The initial proposals suggested a 20m by 53.2m building adjoining the existing barns to the south and the east and over the existing slurry pit to the west. This would have placed the barn further to the north by some 2m+ into ground adjacent to the trees that has never been excavated or disturbed – this would have resulted in damage to roots due to encroachment into the recommended root protection areas (RPA's) of the trees in Group 1 (including individually noted Trees 1-4). Following design changes the building has been narrowed to 18m width which places the structure broadly along the same and historic building line that is evident on site by the (now partially covered) retaining wall – see below.



4 Design Proposals and Arboricultural Impact (cont)

Historically the presence of covered buildings along this line – including a significant retaining wall and level changes - will have minimised root extension to the south. As such it is not expected that any significant root damage will be caused and that therefore no significant negative impact will be felt by the trees. Prior to site works commencing a demarcating tree protection fence line can be placed 1m to the north of the proposed construction line. This fencing should be installed following tree pruning (see below) but prior to construction beginning. Given the nature and topography of the site it is recommended that a simple line of Heras type fence panels bolted together and braced to prevent movement will be adequate.

4.4 Potential Conflict 3: Damage to trees due to pruning.

Some low and overhanging branches may require pruning to allow construction and clearance from the building post-construction.

Mitigation / Countermeasure: As the building is now narrower, providing on average a 5m clearance to the tree stems, only very small amounts of pruning will be required to provide a generous 2m clearance to the building. This work should be undertaken by a suitably experienced Arborist in accordance with BS3998, and will not have any significant arboricultural impact.

5 Pre-construction and Site Preparation Works

- 5.1 Refer to Appendix 2 for stage specific tasks.
- 5.2 Tree works as outlined in Appendix 2 should be undertaken.
- 5.3 Prior to any further site works commencing, the tree protection zone fencing needs to be erected.

6 Tree protection measures during construction

- 6.1 Refer to Appendix 2 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 mitigation or special construction techniques can be considered.
- 6.3 Building material storage and operations that can contaminate soil, such as cement mixing, must be confined to areas outside the RPA's.
- 6.4 Fires should not be lit.
- 6.5 The trees should not be used to attach notices, cables or other services.
- 6.6 The installation of any underground services near or adjacent to trees on the site shall conform to the requirements of National Joint Utilities Group publication Volume 4 (November 2007).

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-catagories 1, 2, & 3 – details of which are shown in appendices.

Tree Survey Data

No.	Species	Age	DBH	Stems	Height	Crown Spread				CH	EstD	General Observations	EstCont	BS Cat	Recommendation
						N	S	E	W						
1	Sycamore	M	59	2-5	15	3	7	2	6	3	N	Co-dominant stems at 1.5m.	40+	B1	No work required
2	Sycamore	M	50	2-5	15	2	6	4	3	6	N	Co-dominant stems at 1.5m.	40+	B1	No work required
3	Sycamore	M	48	1	15	2	4	3	3	4	N	Basal cavity - appears limited.	20+	B1	No work required
4	Sycamore	M	52	1	15	3	4	3	3	4	N		40+	B1	No work required





Group Data

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
1	Sycamore	Scots Pine	50	15	M	4	Plantation. Planted at 2-4m spacings. Reasonable condition generally.	No work required	40+	B2

Appendix 2: Arboricultural Tasks Sequence Tables

Tree or Group Number	Pre-Construction Stage	Construction Stage	Post Construction Stage
Trees within Group 1 overhanging building line.	Prune back where necessary to allow a minimum 2m clearance to the building line and building roofline.		
All trees.	Adhere to Section 5. Install tree protection zone fencing – 1m north of building line.	Adhere to specification within Section 6.	Remove tree protection zone fencing.



-  Tree to be Retained
-  Root Protection Area - to remain free from disturbance
-  Group of Trees to be Retained
-  Tree Protection Barrier (specification as per Appendix 4, example B)
- 1/G1 Tree/Group
- A1/B1/
C1/U BS5837 Retention Category

APPENDIX 3

Drawing Title: Tree Protection Plan

Project: Ripley's Farm, Cloughton

Drawing Number: ARB/AE/2273/TPP

Date: October 2019

Scale: 1:200 @ A3

Tree Group 1
B2

1
B1

2
B1

3
B1

4
B1

5000

4000

5000

5000

N

18000

Proposed New Building

Existing
Building 7

53200



0 2 4 6 8 10 12 14 16 18 20 [m]

