# NICHOLSONS

# ARBORICULTURAL REPORT, IMPACT ASSESSMENT AND METHOD STATEMENT

## Relating to trees at

# Muddle Barn Farm, Sibford Gower, Oxfordshire OX15 5RY.



Presented by

Mr. Peter Harding M. Arbor. A, PIEMA, Dip. For.

Nicholson Nurseries Ltd The Park North Aston Oxon OX25 6HL. Tel. 01869 340342

### **CONTENTS**

Page no.

- 3 Arboricultural Report
- 7 Arboricultural Impact Assessment
- 9 Conclusions and Recommendations
- 10 Arboricultural Method Statement

Appendix 1: Qualifications

Appendix 2: Tree Survey

Appendix 3: Tree Constraints, Arboricultural

Impact & Tree Protection Plans

Appendix 4: Photographs

The content and format of this Report are for the exclusive use of the Client as shown on page three of this report. It may not be sold, lent, hired out or divulged to any third party not directly involved in the subject matter without the written consent of Nicholson Nurseries Ltd.

## **Arboricultural Report**

**Client:** Mr. Gregory Besterman

**Site:** Muddle Barn Farm, Sibford Gower, Oxfordshire

OX15 5RY.

Arboricultural Consultant:

Peter Harding M. Arbor A, AIEMA, Dip For.

**Date:** 02/09/18

#### **EXECUTIVE SUMMARY**

Muddle Barn Farm comprises a group of farm buildings which no longer operates as a farm. It is proposed that most of the existing buildings are demolished and a new detached property built. This will involve the removal several low grade trees (mainly rows of Leyland cypress). Retained trees will be protected during the development.

#### 1.0 <u>Introduction</u>

It is proposed that the existing buildings at Muddle Barn Farm are replaced with a new detached dwelling and ancillary buildings. Some existing buildings will be retained and converted for use.

#### 2.0 Instructions

I have received instructions from Mr Gregory Besterman, the owner of the property, to carry out an Arboricultural Survey and Implications Assessment of the site, to advise on suitability of trees to be retained and removed and to comment on the likely impact on retained trees. I have also been asked to provide an Arboricultural Method Statement.

#### 3.0 Date of Visit

The site was visited on Thursday 16<sup>th</sup> August. I arrived on site at approximately 08.55. The weather was dry and clear following early rain. I carried out the survey unaccompanied, leaving the site at approximately 12.10

#### 4.0 Qualifications and Experience

This report is based on observations and conclusions derived from my experience and technical knowledge. Details of my qualifications and experience are listed in Appendix 1.

#### 5.0 Site Description

The site is located to the south west of the Oxfordshire village of Sibford Gower. Muddle Barn Farm is no longer in use. The only occupied dwelling is located to the north east of the site. There are several lines of Leyland cypress protecting various sections of the site and a line of mature oak trees alongside the existing drive.

#### 6.0 The Soils on Site

The soils on site are described by Cranfield University Soils and Agrifood Institute 'Soilscapes' map as 'freely draining slightly acid but base-rich soils'.

#### 7.0 Proposed Development

The proposed development involves the removal of most of the existing buildings in the main farmyard. Some will be retained (or partially retained) and renovated. A new detached property with landscaped gardens will be constructed at the centre of the area currently occupied by the farm buildings. Existing service runs will be used where possible. Where this is inappropriate, they will be routed well away from retained trees.

#### 8.0 Constraints and Other Considerations

I have not been informed of any constraints applying to the site. Tree Preservation Orders or Conservation Area status may exist. It is important to check this with Cherwell District Council before carrying out all but emergency tree work. Failure to do this could result in prosecution.

Pruning works will be required to be in accordance with British Standard 3998:2010 Tree Work - Recommendations.

Underground services near to trees will need to be installed in accordance with the guidance given in BS5837 together with the National Joint Utilities Group Booklet 4 (2007): Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) – Operatives Handbook.

#### 9.0 Scope of Survey

- 9.1 The survey is concerned with the arboricultural aspects of the site only. The planning status of the trees was not investigated in detail.
- 9.2 The trees were surveyed at a preliminary level only. The survey must not be substituted for a tree risk assessment report. Where it is considered that further investigation is required, this is noted in the preliminary management recommendations column of the tree survey.
- 9.3 Trees located outside the property were surveyed from the best possible vantage point within the property. Any assessment of tree condition is based on what was visible at the time of the visit.
- 9.4 A qualified Arboriculturalist undertook the report and site visit and the contents of this report are based on this. Whilst reference may be made to built structure or soils, these are only opinions and confirmation should be obtained from a qualified expert as required.
- 9.5 The trees were surveyed on the basis of the Visual Tree Assessment method expounded by Mattheck and Breloer in 'The Body Language of Trees', Department for Transport, Local government and the Regions book Research for Amenity Trees No. 4, 1994).
- 9.6 The survey was undertaken in accordance with British Standard 5837: 2012 Trees in Relation to Design, Demolition and Construction Recommendations [BS5837].

#### 10.0 Survey Method

- 10.1 Only trees likely to be impacted by development were surveyed.
- 10.2 The survey was conducted from ground level with the aid of binoculars where necessary.
- 10.3 No tissue samples were taken nor was any internal investigation of the subject trees undertaken.
- 10.4 No soil samples were taken.
- 10.5 The height of each subject tree was estimated using a laser measuring device.

- 10.6 The stem diameters were measured in millimetres at 1.5 metres above ground level for single stemmed trees. For multi-stemmed trees, each stem has been measured at 1.5 metres above ground level and calculations made in accordance with BS5837 2012 paragraph 4.6a. Where access was difficult the diameters were estimated and marked as such on the tree table. [Trees with a diameter less than 75mm at 1.5m have not been included in the Survey.]
- 10.7 The crown spreads were measured at the four cardinal compass points using a laser measuring device. These are recorded in the Tree Survey (Appendix 2).
- 10.8 All trees inspected during the site visit are detailed on the plan at <u>Appendix 3</u>. Please note that the attached plan is for indicative purposes only. The trees on this plan are categorised and shown in the following format: COLOUR CODING AND RATING OF TREES:

Category A - Those of a high quality with an estimated remaining life expectancy of at least 40 years. Colour = light green crown outline on plan.

Category B – Those of a moderate quality with an estimated remaining life expectancy of at least 20 years. Colour = mid blue crown outline on plan.

Category C – Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. Colour = grey crown outline on plan.

Category U – Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management. Colour = dark red crown outline on plan.

All crown outlines are indicative and more detailed information of the precise measurements can be seen in the tree table at Appendix 2.

All references to tree rating are made in accordance with British Standard 5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations, Table 1 (section 4).

10.9 The Root Protection Area for each retained tree (calculated as per paragraph 4.6 of BS5837) has been included with the Tree Survey table for reference.

#### 11.0 The Tree Cover

The tree cover on the area of the site which would be affected by development comprises the following:

- ➤ Several groups of close planted early mature Leyland cypress trees (G1 & G6 G10). It is assumed these were planted for screening purposes. They are out of keeping with the local landscape and are of little arboricultural merit.
- ➤ Two mature ash trees (T2 & T19). Both are hedgerow trees which were not fully accessible. The latter is in poor condition with limited life expectancy.
- ➤ Seven trees in the garden of the cottage. They include a mixed group broadleaves (G3) which are of little arboricultural merit, a close grown pair of birch trees (G4) and a small cherry (T5).
- ➤ A small early mature red oak tree (T11) located off-site.
- ➤ A line of specimen oak trees (T12 T16) located in the garden of New Barn Farm. These are the most arboriculturally important trees in the area and three have been graded as 'A' category trees.
- ➤ A clump of low grade small hedgerow ash (G17).
- > Two areas of recently planted woodland (G18 & G20.

#### 12.0 Arboricultural Impact Assessment

#### 12.1 General Comments on Tree Survey.

Most of the trees on site are low grade and can be removed to facilitate the development. The main arboricultural feature, which should be retained, is the line of mature oaks in the garden of New Barn Farm.

#### 12.2 Trees to be Retained.

G1 – G4, T11 – G18 & G20 will be retained.

#### 12.3 Trees to be Removed.

G5 – T10 & T19 will be removed prior to development.

#### 12.4 Trees Requiring Pruning Works.

T12 – T16 will require crown lifting if the existing drive is used for access during development.

#### 12.5 Areas to be Protected for Future Planting.

Areas designated for new planting are predominantly outside the main development area and do not require protection.

#### 12.6 Impact of Proposed Tree Losses.

The trees requiring removal are generally low in quality and the impact of removal will be minimal.

#### 12.7 Evaluation of Tree Constraints.

The main constraint to development is the line of mature oaks in the garden of New Barn Farm. If the existing drive is to be used during construction, it is important that the roots of these trees are protected.

#### 12.8 Issues to be Addressed in Arboricultural Method Statement.

The issues which need addressing in the AMS are:

- Protective fencing location
- Ground protection for T12 T16
- Site Access
- Storage
- Arboricultural Supervision.

#### 13.0 The Tree Survey

Results of the survey are attached in Appendix 2.

# 14.0 <u>Tree Constraints Arboricultural Impact and Tree Protection</u> Plan

Site plans of the area of proposed development showing Tree Constraints and Tree Protection measures are attached in Appendix 3.

Plans were derived from the drawings (no. 1759.010 rev. B – northern section) and (no. 1759.151 rev. B – southern section) supplied by Yiangou Architects and , the location of the proposed property was derived from drawing number 1759.160 rev. D and 1759.151 rev. B supplied by Yiangou Architects.

**NOTE** If you are reading this as a PDF, the Tree Constraints Plan, Arboricultural Impact Plan and Tree Protection Plan are included in this report for information only. *They cannot be printed at the specified scale from this document.* Scale drawings are attached separately.

#### 15.0 Photographs

A selection of photographs relating to the site is attached in Appendix 4.

\*

#### 16.0 Conclusions

Provided adequate root protection is in place throughout development (especially regarding trees T12 - T16), it is my opinion that there are no arboricultural reasons why the development should not proceed.

#### 17.0 Recommendations

My recommendations are as follows:-

- 1. The removal of trees G5 T10 & T19 and the crown lifting of trees T12 T16 should take place prior to any other work on site.
- 2. Protective fences as directed in the current edition of BS5837 Trees in Relation to Construction should be erected and ground protection installed prior to construction and remain in place until construction is complete. These are designed to protect retained trees.
- 3. If the existing drive is to be used during construction, it is important that adequate ground protection is in place within the Root Protection Areas.
- 4. Arboricultural supervision should be undertaken at critical stages such as after the installation of fencing and ground protection.
- 5. All access and storage should be well away from retained trees.

# <u>Arboricultural Method Statement for Tree Protection for the Duration of Demolition and Construction Works</u>

This Method Statement concerned only with arboricultural aspects of the development process. Some procedures may require more detailed input from other professionals.

Arboricultural Method Statement (AMS) includes a Tree Protection Plan (TPP) to identify:

- Trees to be retained.
- Trees to be removed.
- Trees to be pruned.
- Protective fence positions

#### 1.0 Tree Works

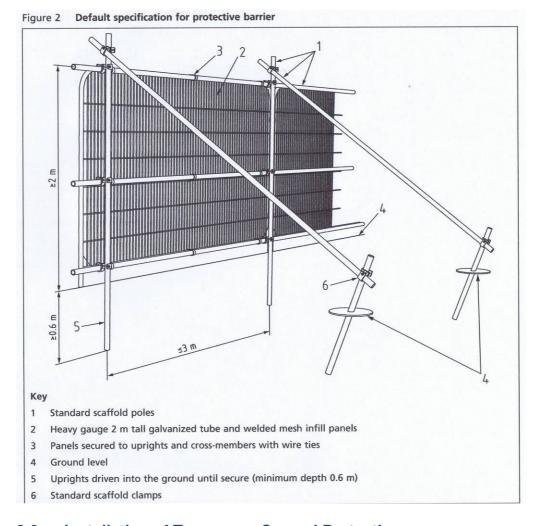
1.1 Trees G5 – T10 & T19 will be felled prior to any other work on site

#### 2.0 Root Protection Areas

- 2.1 Root Protection Areas (RPAs) required by British Standard 5837 (2012) Trees in Relation to Design, Demolition & Construction They are calculated from the stem diameters of trees when measured at a height of 1.5m from ground level. The RPAs must be protected at all times. No works will be undertaken within any RPAs that causes compaction to the soil or severance of tree roots.
- 2.2 No work will take place within any RPA.

#### 3.0 Protective Fences

- 3.1 Protective fences will be erected prior to the commencement of any site works e.g. before any materials or machinery are brought on site, development or the stripping of soil commences. The fence will have signs attached to it stating 'CONSTRUCTION EXCLUSION ZONE NO ACCESS'. The protective fences may only be removed following completion of all construction works.
- 3.2 The fence is required to be sited in accordance with the Tree Protection Plan enclosed with this method statement. They must ideally be constructed as per figure 2 in BS 5837 2012 and be fit for the purpose of excluding any construction activity (See below). Any other fence/barrier used must be fit for the purpose.



3.0 <u>Installation of Temporary Ground Protection</u>

- 3.1 Where temporary access is required to a RPA, ground protection will be installed before any work is carried out. This will be in accordance with BS5837 2012 6.2.3.3.
- 3.2 Where the existing track is within the RPA of trees T12 T16, Cap Trac 2.4m x 1.2m. Terramat panels (see <a href="http://www.captrac.co.uk/terramat/4579440818">http://www.captrac.co.uk/terramat/4579440818</a>) will be used on top of the existing hard surface.

#### 4.0 **Demolition**

4.1 Most of the existing buildings will be demolished. Where they are near retained trees, demolition will be undertaken with great care ensuring walls are pulled away from trees. This is especially important when working near T11.

#### 5.0 Excavations Within the RPA

5.1 No excavations will take place within any RPA.

#### 6.0 Installation of New hard Surfacing

6.1 No new hard surfacing will take place within any RPA.

#### 7.0 Specialist Foundations

7.1 No specialist foundations will be required.

#### 8.0 Retaining Structures to Facilitate Changes in Ground Level

8.1 No changes of ground level will take place within the RPA.

#### 9.0 Preparatory Works for New Landscaping

9.1 A landscaping plan will be submitted at a later date.

#### 10.0 Site Hut & Toilets

10.1 There is ample storage room on site and these facilities can be situated anywhere outside the RPAs of retained trees.

#### 11.0 Contractor Car parking

11.1 Vehicles can be parked on site provided they are outside the RPAs of retained trees.

#### 12.0 Access & Storage

12.1 Access will be either via the existing drive or via the newly created drive to the west. Storage can be anywhere outside the RPAs of retained trees.

#### 13.0 Remedial Tree Works

13.1 Trees T12 – T16 should undergo crown lifting to 4.5m before any large vehicles are brought onto site.

#### 14.0 Use of Herbicides

14.1 No herbicide use is planned

#### 15.0 Contingency Plan

15.1 Water is readily available on site and will be used to flush spilt materials through the soil and avoid contamination to tree roots. At the time of any spillage the main contractor will contact an arboriculturalist for advice.

#### 16.0 Auditing and Monitoring

The site will be inspected by the Project Arboriculturalist at the following stages in the development process:

- Immediately after the erection of protective fences and installation of ground protection.
- Once during the demolition phase.
- Twice during the construction phase.
- On completion of works.

Observations will be recorded on a site monitoring form. Any issues arising will be reported to the site manager. Further visits may then be necessary to ensure these have been resolved.

#### 17.0. Additional Precautions

- 17.1 No storage of materials, lighting of fires will take place within the RPA. No mixing or storage of materials will take place up a slope where they may leak into a RPA.
- 17.2 No fires will be lit within 20 metres of any tree stem and will take into account fire size and wind direction so that, no flames come within 5m of any foliage.
- 17.3 No high-sided vehicles or cranes will be permitted to use the existing drive where it passes trees T12 T16.
- 17.4 No notice boards, cables or other services will be attached to any tree.
- 17.5 Materials which may contaminate the soil will not be discharged within 10m of any tree stem. When undertaking the mixing of materials it is essential that, any slope of the ground does not allow contaminates to run towards a tree root area.

#### 18.0 Responsibilities

- 18.1 It will be the responsibility of the main contractor to ensure that any planning conditions attached to planning consent are adhered to at all times and that a monitoring regime in regards to tree protection is adopted on site.
- 18.2 The main contractor will be responsible for contacting the Local Planning Authority at any time issues are raised related to the trees on site.
- 18.3 The main contractor will be responsible for ensuring subcontractors do not carry out any process or operation that is likely to adversely impact upon any tree on site.

- 18.4 If at any time pruning works are required permission must be sought from the Local Planning Authority first and then carried out in accordance with British Standard 3998:2010 Tree Work Recommendations.
- 18.5 The main contractor will ensure the build sequence is appropriate to ensure that no damage occurs to the trees during the construction processes. Protective fences will remain in position until completion of ALL construction works on the site.
- 18.6 The fencing and signs must be maintained in position at all times and checked on a regular basis by a person designated that responsibility.

	Build Sequence
1	Site meeting to outline tree protection measures.
2	Carry out felling and remedial tree works.
3	Demolish existing buildings
4	Erect protective fences and ground protection.
5	Proceed with installation of foundations and other building works.
6	Remove protective fences and ground protection once all construction work is complete.
7	Carry out any landscaping works.

CONTACT DETAILS									
Position	Name	Contact Details							
Site Owner	Mr. Gregory Besterman								
Project Arboriculturalist	Mr. Peter Harding Nicholsons								
Project Architect	Yiangou Architects	01285 888150 architecture@yiangou.com							
Planning Consultant									
Local Authority Tree Officer	Chiltern District Council	planning@cherwell-dc.gov.uk 01295 227006							

### Appendix 1 – Qualifications

#### Qualifications and experience of Arboricultural Consultant

I have been practising forestry since 1974 and the related discipline of arboriculture since 1997. I have worked on a number of private estates and carried out work for large companies and private individuals. I have been involved in practical tree work, project management, tree inspections & reports, Tree Preservation Orders and woodland management. I have prepared reports relating to development sites, health and safety and mortgage issues.

I am a Professional Member of The Arboricultural Association and The Consulting Arborist Society, an Associate Member of The Institute of Environmental Management. I also hold memberships of The Royal Forestry Society and the Small Woods Association. I have attended a LANTRA 'Arboriculture and Bats' course and National Trust courses on Veteran Tree Management and Veteranisation.

My qualifications include:Technicians Certificate (Arboricultural Association)
Diploma in Forest Management
IEMA Associate Certificate in Environmental Management
FdSc Arboriculture Pests Diseases & Weeds Module (merit)
ISA Certified Arborist
City & Guilds Forestry Stages 1 & 2
Lantra Professional Tree Inspection Award
RHS Certificate in Horticulture
I am licensed to carry out AMUIG Mortgage Reports and a licensed user of the Quantified Tree Risk Assessment and CAVAT methods.

#### **Appendix 2 TREE SURVEY: BS5837** Muddle Barn Farm, Sibford Gower September 2018 **Branch Spread** Root Diameter First Height Remaining Protection Height Life Observations & Preliminary Tree Category Significant Tree Species at 1.5m of Useful Life Area -Stage Recommendations Grading (m) Branch Canopy (Yrs) Radius (mm) Ν S Е W (m) Leyland Cypress Line of trees planted as a screen. 2 2 C2 G1 250 ΕM 3.00 4 40+ Cupressocyparis No work necessary at present. leylandii) Common Ash Inaccessible ivy clad hedgerow tree T2 (Fraxinus 16 1100e 6.5 6.5 6.5 6.5 5 М 20+ which forks at 3m. B1 13.20 excelsior) No work necessary at present. Group of four trees including goat Mixed willow, whitebeam, eucalyptus & 4.5 4.5 4.5 4.5 G3 6 450 2 ΕM 40+ C1 5.40 purple plum. Broadleaves No work necessary at present. Pair of close grown trees. Silver Birch 2 2 11 440 M 20+ B1 5.40 (Betula pendula) No work necessary at present. Ornamental No significant features. 170 3 3 3 3 М 20+ C1 T5 Cherry 4 1 1 2.10 Remove to facilitate development. (Prunus sp.) Leyland Cypress Line of trees planted as a screen. C2 G6 7 280 2 2 2 2 1 ΕM 40+ 3.30 Remove to facilitate development. Cupressocyparis leylandii)

Tree No.	Tree Species	L Hojaht L	Diameter at 1.5m (mm)	Branch Spread				First	Height	Life	Remai ning			Root Protectio
				N	8	Е	w	Significant Branch	of Canopy	Sta ge	Useful Life (Yrs)	Observations & Preliminary Recommendations	Category Grading	n Area - Radius (m)
G7	Leyland Cypress (x Cupressocyparis leylandii)	4	250	2	2	2	2	1	1	EM	40+	Line of trees planted as a screen. Remove to facilitate development.	C2	3.00
G8	Leyland Cypress (x Cupressocyparis leylandii)	4	250	2	2	2	2	1	1	EM	40+	Line of trees planted as a screen. Remove to facilitate development.	C2	3.00
G9	Leyland Cypress (x Cupressocyparis leylandii)	4	250	2	2	2	2	1	1	EM	40+	Line of trees planted as a screen. Remove to facilitate development.	C2	3.00
G10	Leyland Cypress (x Cupressocyparis leylandii)	4	250	2	2	2	2	1	1	EM	40+	Line of trees planted as a screen. Remove to facilitate development.	C2	3.00
T11	Red Oak ( <i>Quercus rubra</i> )	5	330	2	2	2	2	1	1	EM	40+	Line of trees planted as a screen. No work necessary at present.	C2	3.90
T12	English Oak ( <i>Quercus robur</i> )	16	1030	7	8	8	8	4w	4	M	40+	Moderate basal damage north, several occluding pruning wounds on main stem, moderate sized deadwood throughout crown. Crown lift to 4.5m if using drive for access.	A1	12.30
T13	English Oak ( <i>Quercus robur</i> )	17	1030	6	9	7	6	4	4	М	40+	No significant features. Crown lift to 4.5m if using drive for access.	A1	12.30
T14	English Oak ( <i>Quercus robur</i> )	4	210	3	3	3	3	2	2	SM	40+	Small suppressed tree. Crown lift t0 4.5m if using drive for access.	C1	2.40

Tree No.	Tree Species	Height (m)	Diameter at 1.5m (mm)	Branch Spread				Fire	l la inha		Domaining			Root Protection
				N	S	E	W	First Significant Branch	Height of Canopy	Life Stage	Remaining Useful Life (Yrs)	Observations & Preliminary Recommendations	Category Grading	Area - Radius (m)
T15	English Oak ( <i>Quercus</i> robur)	12	960	5	6	6	6	3	3	М	40+	Significant crown dieback with major deadwood throughout crown, large limb lost 3.5m northwest. Crown lift to 4.5m if using drive for access.	C1	11.40
T16	English Oak ( <i>Quercus</i> <i>robur</i> )	12	920	4	7	7	6	4	4	М	40+	No significant features. Crown lift to 4.5m if using drive for access.	A1	11.10
G17	Common Ash ( <i>Fraxinus</i> <i>excelsior</i> )	7	150	3	3	3	3	2	2	SM	40+	Group of close grown hedgerow trees. No work necessary at present.	C2	1.80
G18	Mixed Broadleaves	4	150	3	3	3	3	1.5	1.5	SM	40+	Recently planted woodland. No work necessary at present.	C2	1.80
T19	Common Ash ( <i>Fraxinus</i> <i>excelsior</i> )	16	1040	6.5	6.5	6.5	6.5	4w	4	LM	20+	Hedgerow tree - not fully accessible, swelling in lower main stem, active hole in main stem 4m north - internal decay suspected. Remove to facilitate development.	C1	13.80
G20	Mixed Broadleaves	4	150	3	3	3	3	1.5	1.5	SM	40+	Recently planted woodland. No work necessary at present.	C2	1.80

## Appendix 3 – Site Plans

### **Tree Constraints Plan Showing Existing Site Layout**

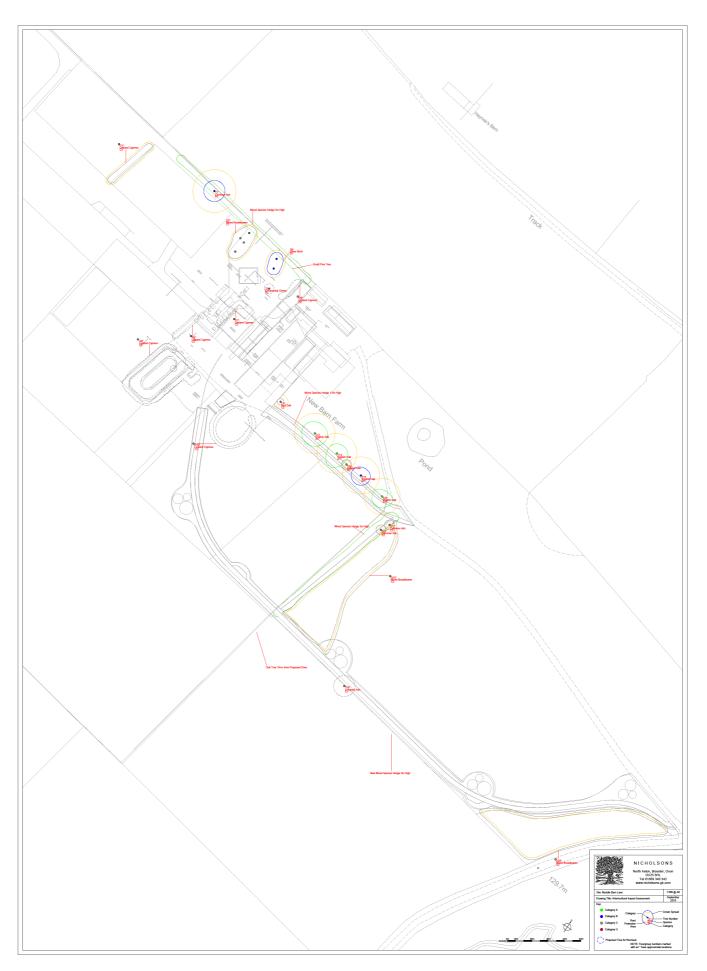
# Arboricultural Impact Plan Showing the Impact of the Proposed Development

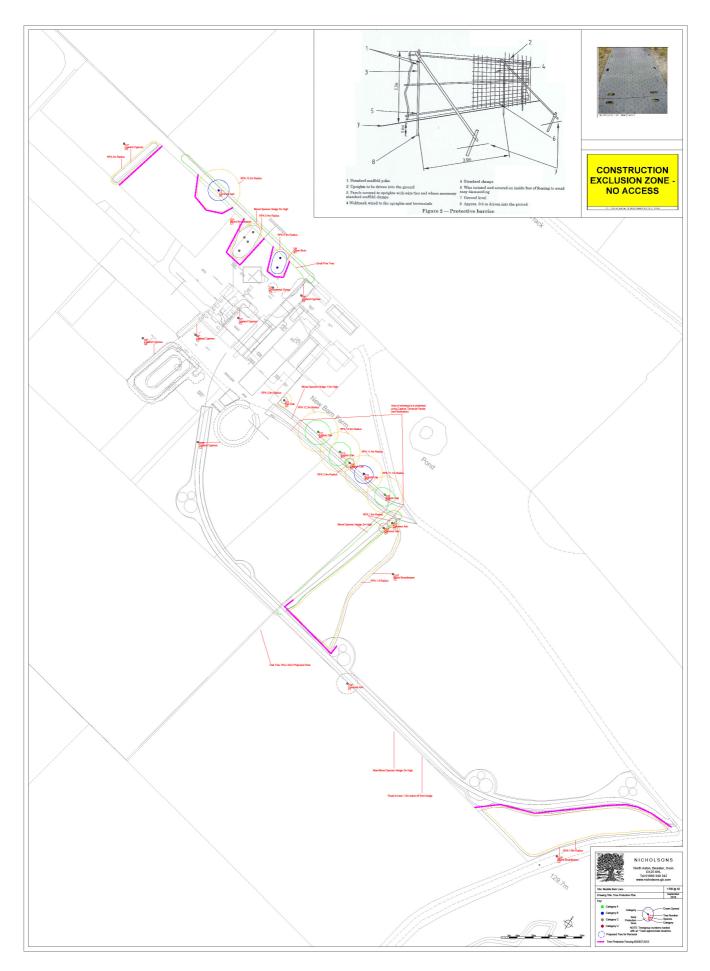
**Tree Protection Plan Showing Tree Protection Measures** 

PLANS SCANNED BELOW ARE FOR INFORMATION ONLY!

ALL THREE SHEETS TO BE PRINTED AT A0 IN COLOUR FROM PLANS SUPPLIED WITH THIS REPORT







## Appendix 4 – Photographs



1/G1 - Leyland Cypress



2/ T2 - Ash



3/ Off-Site Oaks T13 & T12



4/ Off-Site Oaks T16 & T14