

# **TRUSTMARK SERVICES**

## **TREE SURVEY REPORT PRE- DEVELOPMENT TREE SURVEY IN SUPPORT OF PLANNING APPLICATION**

A pre-development tree survey in accordance with British Standard 5837 : 2012, addressing the specific issues of tree retention in the context of a proposed development Catsley Cottage, Kinlet, Bewdley DY12 3AP:

Tree Survey Report – April 2020

## **CONTENTS :**

**1. Terms of Reference**

**2. Survey Methodology**

**3. Site Overview**

**4.0 Summary of Findings & Conclusions**

**5. Arboricultural Implications**

**6.0 Recommendations**

**6. Statutory Obligations**

### **Appendices:**

**1. Survey Schedule**

**2. Drawing – Tree Constraints Plan (A3)**

**3. Table 1 B.S.5837**

Catsley Cottage, Kinlet, Bewdley DY12 3AP

## **1.0 Terms of Reference**

1.1 I was instructed by Mr Paul Davies to undertake a pre-development tree survey at Catsley Cottage, Kinlet, Bewdley DY12 3AP, which is to be in line with B.S. 5837 : 2012 'Trees in Relation to Design, Demolition & Construction - Recommendations'.

1.2 All trees have been inspected from ground level only. Should furthermore detailed inspection be deemed appropriate, this will be covered under Recommendations. Trees are dynamic living organisms, whose health and condition can be subject to rapid change, depending on several external and internal factors. The conclusions and recommendations contained in this report relate to the trees at the time of inspection.

1.3 This survey and report has been completed by Mark Garbett,

1.4 This report, its appendices and any subsequent revisions, will form part of any formal planning application in respect of the development of this site, and as such will be open to public scrutiny and comment.

## **2.0 Survey Methodology**

2.1 The trees have been assessed using the current recommendations, as detailed in British Standard 5837 : 2012 'Trees in relation to Design, Demolition & Construction – Recommendations', in order to arrive at a Retention Category for each individual tree or group of trees. A Root Protection Area (RPA) has been assigned to each tree, based on its stem diameter and in some cases, crown spread, which has then been used to produce the Tree Constraints Plan (attached as appendix 2). For full details of the relevant assessment criteria and retention categories see Table 1 of B.S. 5837 (attached as appendix 3).

2.2 All trees that will have a relevance to impact of the houses have been identified on a 1:250 scale map providing their location and including relevant development on the map. All collected survey data and work recommendations for individual trees is presented in the survey schedule which forms appendix 1 to this report

## **3.0 Site Overview**

3.1 The survey area comprises the land to the immediate west of the development

3.2 The development proposal briefly comprises; the erection of residential units on the site of the existing land of Catsley Cottage, Kinlet, Bewdley DY12 3AP

#### 4.0 Summary of Findings & Conclusions

4.1 A total of 9no. individual trees have been surveyed and 3 hedgerows. A breakdown of the numbers of trees in each retention category can be seen in the table below:

Retention Category	Individual Trees	Groups of Trees	Hedgerows
A High Quality	4	N/A	2
B Moderate Quality	5	N/A	0
C Low Quality	0	N/A	1
R Remove	1	N/A	1
Totals	9	0	3

4.2 Trees 1-7 & 9 have been identified of moderate quality and there is no identifiable reason to remove while undertaking the development scheme. It is noted that all trees will be kept and they will impose no impact on development of the site, the trees will have no influence on the design layout and no specific construction methods should need to be used – The root protection areas of these trees will generally form a construction exclusion zone, although under certain circumstances it may be possible to build within these areas providing that appropriate specifications have been agreed between the local planning authority, the consulting arboriculturist and the developer/client.

4.3 Hedge row 1 - the roots in places are showing due to ground movement the roots are damaged in Places, with the proposed development with movement of ground in and around the root protection area this will cause further damage and will undoubtedly cause the hedge row to fail. This hedge row will need removing.

I would also recommend removing tree no 8 The English Oak this will have long term effects of the Zone of Influence of the house under NHBC Chapter 4.2 when fully mature, this tree is also growing on an embankment on the side of a Main road verge and while it is still very young the roots may have a negative impact on the road and

verge structure, this tree is currently covered in ivy and showing adverse effects on the growth of the tree.

## **5.0 Arboricultural Implications**

5.1 Based on the proposed site layout drawings I have assessed the arboricultural implications of the development as follows:

5.1.1 there are no trees that require to be removed

5.1.2 The proposed residential unit would be located outside the root protection areas of the trees in Catsley Cottage development, they would not be located within the Zone of Influence (Ref. NHBC Chpt. 4.2) and as such consideration will need to be given to the foundation design, particularly if founded on a shrinkable soil.

5.1.3 There is the potential for damage to the root systems of the trees in Catsley Cottage Development as a result of construction activities, and in particular the use of heavy plant and machinery. It will therefore be essential to protect the ground within the designated root protection areas during the construction phase of the development. Also taking into consideration the fencing works in the root protection zone, thus taking into consideration root protection zones of the trees, noting in these zones it will be hand dig only and no cutting of roots more than 25mm, if roots above 25mm are found in the area of a fence post location it will be necessary to relocate the fence post situation.

5.1.4 With very limited landscaping works in the proposed re-landscaping of Catsley Cottage it is unlikely to impact on the three trees on the west of the site.

## **6.0 Recommendations**

6.1 None of the trees need remedial works but should be suitably protected with appropriate temporary fencing for the duration of the construction phase of the development (exact specifications for which will depend on the degree and nature of the proposed development in any specific area of the site). Broad recommendations for protective fencing and other tree protection measures, can be obtained from British Standard 5837 : 2012, whilst precise and specific recommendations should be sought, following the drawing up of detailed plans, when a site specific Arboricultural Method Statement (AMS) is likely to be the most appropriate consultative document.

6.2 where fencing works are required precaution to root protection zones should be observed. All excavation must be carried out carefully using spades, forks and trowels, taking care not to damage the bark and wood of any roots. Specialist tools for removing soil around roots using compressed air may be an appropriate alternative to hand digging, if available. All soil removal must be undertaken with care to minimize the disturbance of roots beyond the immediate area of excavation. Where possible, flexible clumps of smaller roots, including fibrous roots, should be retained if they can be displaced temporarily or permanently beyond the excavation

without damage. If digging by hand, a fork should be used to loosen the soil and help locate any substantial roots. Once roots have been located, the trowel should be used to clear the soil away from them without damaging the bark. Exposed roots to be removed should be cut cleanly with a sharp saw or secateurs 10– 20cm behind the final face of the excavation. Roots temporarily exposed must be protected from direct sunlight, drying out and extremes of temperature by appropriate covering. Roots greater than 2.5cm in diameter should be retained where possible. Roots 2.5– 10cm in diameter should only be cut in exceptional circumstances. Roots greater than 10cm in diameter should only be cut after consultation with the appropriate supervisory officer

6.3 All tree works must only be carried out by suitably qualified and experienced contractors, and should conform to guidelines set out in British Standard 3998 : 2010 'Tree work – Recommendations'.

## **7.0 Statutory Obligations**

- Works to trees which are covered by Tree Preservation Orders [TPO's] or are within a Conservation Area [CA] require permission or consent from your Local Planning Authority [LPA]. It is necessary to gain confirmation from the LPA of any TPO's or CA's on the site, and to follow the necessary application procedure if tree surgery or indeed felling, is required in respect of protected trees. Full planning consent will however, override the need for a separate application, providing that details of all tree works were included in the submission and subsequently approved by the local authority.
- It is a criminal offence under normal circumstances to disturb or destroy - whether intentional or unintentional - the nesting sites of wild birds or the roost sites of bats, under the 'Wildlife & Countryside Act 1981 and the 'Countryside and Rights of Way Act 2000'.

Therefore, avoid carrying out significant tree works during the bird nesting season [mid-March to end of July] and ensure that trees are professionally surveyed for signs of bat roosts and/or bat activity before starting any tree work.

Tree Table to BS 5837:

Tree No.	Species (common Name)	Age Class	Height (M)	Crown Spread:				Crown Clearance	Stem Diameter	Vigour	Amenity	Water Demand NHBC	Condition / Comments	Recommendations	Ret. Cat (sub Cat)	RPA (M)
				N	E	S	W									
T1	Taxus Baccata (Yew Tree)	Middle Aged	7	6.4	3.4	5.2	4.6	1.6	0.9	Normal	Moderate	Moderate	Fair – Multi stem tree 4 stems: 0.28, 0.36, 0.34 & 0.36	No Works Required	A (2)	9
T2	Corylus Avellana (hazel Nut)	Mature	6.5	3.4	2.1	3.4	0.6	1.5	0.5	Normal	Moderate	Moderate	Fair – Multi stem tree 4 stems: 0.24, 0.13, 0.18 & 0.12	No Works Required	B (1)	5
T3	Prunus avium (cherry Tree)	Middle Aged	5.5	3.1	2.4	0.14	0.4	2.5	0.2	Low	Moderate	Moderate	Fair – Lots of Ivy on tree from base and most of trunk	No Works Required	B (1)	2.4
T4	Prunus avium (cherry Tree)	Middle Aged	5.5	0.5	2.7	1.9	0.8	2.6	0.2	Low	Moderate	Moderate	Fair – Lots of Ivy on tree from base and most of trunk	No Works Required	B (1)	2.4
T5	Laurus Nobilis (Laurel Tree)	Young	5	4.4	4.8	3.3	1.5	1.5	0.3 & 0.15	Normal	Moderate	Moderate	Good – Multi stem tree stem splits at base	No Works Required	A (1)	4.7
T6	Prunus avium (cherry Tree)	Middle Aged	6	1.4	4.1	4.4	5.4	2.8	0.34	Normal	High	Moderate	Good – Multi stem tree 3 stems: 0.19, 0.29 & 0.34	No Works Required	B (1)	3.14
T7	Cupressocypariss Leylandii (leyland cypress)	Middle Aged	7.5	2.7	3.2	4.0	2.3	2.6	0.38	Normal	Moderate	Moderate	Good	No Works Required	B (1)	4.56
T8	Quercus Robur (English Oak)	Young	4	2	2.1	1.3	1.5	3	0.16	Low	Low	High	Poor – Tree is completely covered in Ivy	Remove	C (1)	1.92
T9	Betula pendula (Silver Birch)	Middle Aged	8.5	3.8	3.1	3	3.5	2.4	0.4	Normal	High	Moderate	Good	No Works Required	A (1)	4.8

Hedge Row Table to BS 5837:

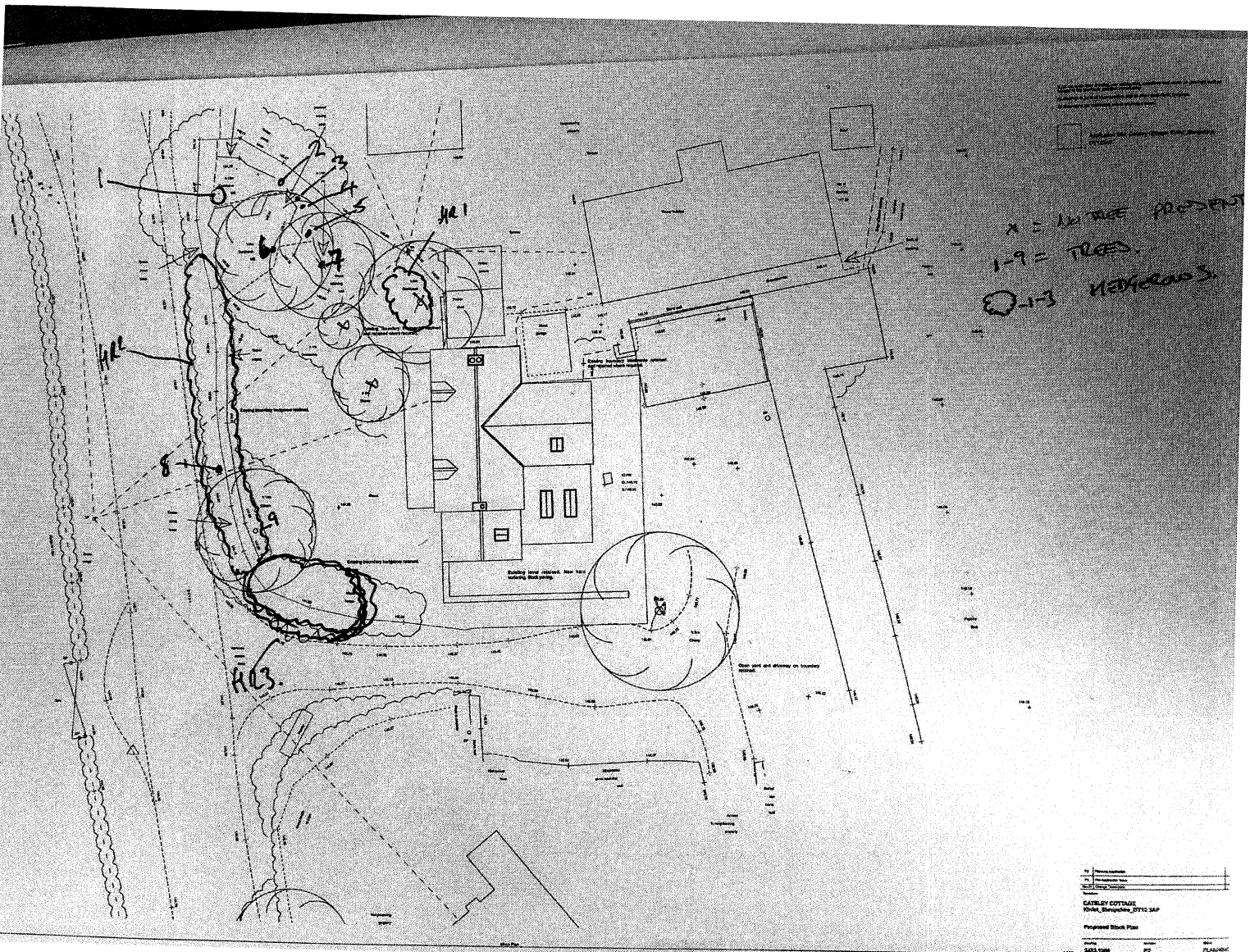
Hedge Row No. (Hedge No.)	Species (common Name)	Age Class	Height (M)	Crown Spread:				Crown Clearance	Stem Dia.	Vigour	Amenity	Water Demand NHBC	Condition / Comments	Recommendations	Ret. Cat (sub Cat)	RPA (M)
				N	E	S	W									
HR1 (1)	Cornus Genus (dogwood)	Middle Aged	3.4	1.9	2	0.3	0.5	0.1	Various	Low	Moderate	Moderate	Poor	Remove	B (2)	0.96
HR2 (1)	Taxus Baccata (English Yew)	Young	2	0.6	0.2	0.7	0.4	0.1	0.12	Normal	Moderate	Moderate	Good/Fair	No Works Required	A (1)	1.44
HR2 (2)	Crataegus (Hawthorn e)	Middle Aged	2	0.5	0.2	0.4	0.4	0.1	0.06	Normal	Moderate	High	Good/Fair	No Works Required	B (2)	0.7
HR2 (3)	Crataegus (Hawthorn e)	Middle Aged	2	0.5	0.2	0.7	0.4	0.1	0.07	Normal	Moderate	High	Good/Fair	No Works Required	B (2)	0.75
HR2 (4)	Ilex (Holly)	Middle Aged	2	0.5	0.2	0.5	0.4	0.1	0.06	Normal	Moderate	Low	Good/Fair	No Works Required	B (2)	0.7
HR2 (5)	Ilex (Holly)	Middle Aged	2	0.6	0.2	0.6	0.4	0.1	0.065	Normal	Moderate	Low	Good/Fair	No Works Required	B (2)	0.8
HR2 (6)	Cupressocyparispis Leylandii (leyland cypress)	Middle Aged	2	0.8	0.2	0.4	0.4	0.1	0.19	Normal	Moderate	Moderate	Good/Fair	No Works Required	B (2)	2.28
HR2 (7)	Crataegus (Hawthorn e)	Middle Aged	2	0.3	0.2	0.4	0.4	0.1	0.65	Normal	Moderate	High	Good/Fair	No Works Required	B (2)	0.8
HR2 (8)	Crataegus (Hawthorn e)	Middle Aged	2	0.5	0.2	0.3	0.4	0.1	0.7	Normal	Moderate	High	Good/Fair	No Works Required	B (2)	0.75
HR2 (9)	Crataegus (Hawthorn e)	Middle Aged	2	0.4	0.2	0.7	0.4	0.1	0.6	Normal	Moderate	High	Good/Fair	No Works Required	B (2)	.85
HR3 (1)	Ilex (Holly)	Middle Aged	2.8	1.8	0.4	0.3	0.3	0.1	0.8	Normal	Moderate	Low	Good/Fair	No Works Required	B (2)	1
HR3 (2)	Ilex (Holly)	Middle Aged	2.8	1.8	0.5	0.3	0.4	0.1	0.65	Normal	Moderate	Low	Good/Fair	No Works Required	B (2)	0.8
HR3 (3)	Ilex (Holly)	Middle Aged	2.8	1.8	0.8	0.3	0.6	0.1	0.7	Normal	Moderate	Low	Good/Fair	No Works Required	B (2)	.85



### TREE SURVEY SCHEDULE: Appendix 1 to Report

#### KEY TO SURVEY CRITERIA & HEADINGS:

Species	Botanical name with common name in brackets
Age Class	Young trees – less than 1/3 normal life expectancy Middle-aged trees – 1/3 to 2/3 normal life expectancy Mature trees – over 2/3 normal life expectancy Over-mature – beyond usually expected life span
Height	Estimated in metres
Crown Spread	Crown spread (North / East / South / West) measured from centre of trunk, in metres
Crown clearance	Approximate height between lowest branch and ground level (metres)
Stem dia.	Trunk diameter (mm) measured at 1.5m above ground level, or ground level (gl), if multi-stem
Vigour	Objective assessment of a tree's vigour (normal or low)
Amenity	Subjective assessment of a tree's contribution to the amenity value of the area: High to Low
Water Demand	NHBC water demand category (High, Moderate, Low)
Condition	Good, Fair or Poor, based on the general health and structural condition of the tree
Recommendations	Remedial works in order to facilitate retention, or recommendation to remove
Ret.Cat.	Based on B.S.5837 Retention categories: A = Those of High Quality & Value B = Those of Moderate Quality & Value (Sub-categories 1,2,3 in brackets) C = Those of Low Quality & Value R = Remove (or Fell) RPA Root Protection Area, measured in metres from centre of tree, or may be expressed in m <sup>2</sup>
RPA	Root Protection Area, measured in metres from centre of tree, or may be expressed in m <sup>2</sup>







X = 10 TREE PROPOSED  
 1-9 = TREES  
 O-13 HEDGES

No.	Description	Area

**CATTLEBY COTTAGE**  
 10/24/2006  
 Proposed Block Plan

DATE	2006.10.24	REV	PC	BY	PLANNING

**BS5837:2012 Table 1 – Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)	Identification on plan
<p><b>Trees unsuitable for retention</b> (see Note)</p> <p><b>Category U</b></p> <p>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years</p>	<p>• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</p> <p>• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</p> <p>• Trees infested with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality</p> <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see [BS5837:2012] 4.5.7.</i></p>	
<p><b>Trees to be considered for retention</b></p> <p><b>Category A</b></p> <p>Trees of high quality with an estimated remaining life expectancy of at least 40 years</p>	<p><b>1 Mainly arboricultural qualities</b></p> <p>Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)</p>	
<p><b>Category B</b></p> <p>Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</p>	<p><b>2 Mainly landscape qualities</b></p> <p>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</p>	
<p><b>Category C</b></p> <p>Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm</p>	<p><b>3 Mainly cultural values, including conservation</b></p> <p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</p>	

**FLAC Note**

The original contents of the column *Identification on plan* have been replaced by FLAC in the version above; spot colours to RGB codes given in BS5837:2012 Table 2