

BS5837:2012 Tree Survey
 Garden at 36 Main Street
 Stoke Golding
 Leicestershire
 NGR SP 39531 97273

Survey by
 Christopher Barker CEnv dipHort ACIEEM

	Report prepared by: C Barker	Date Issued: 04 July 2023
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	Report ref: P2761 / 0723 /02	C B E Consulting Highbank, 5 Grantham Road, Navenby Lincoln. LN5 0JJ. Telephone (01522) 810086. www.cbeconsulting.co.uk

BS5837 Tree Survey, Land at 36 Main Street, Stoke Golding

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1. Introduction

1.1 Site Description and Location

The site surveyed comprises part of a residential garden situated at 36 Main Street, Stoke Golding, Hinckley and Bosworth centred at NGR SP39531 97273. The location of the site is shown on the plan within **Figure 1** and an aerial photograph has been provided within **Figure 2** to place the site in context.

The site lies within Hinckley And Bosworth and is within the Stoke Golding Conservation Area. All of the trees within the area surveyed are protected under the auspices of this and prior written approval must be obtained from Hinckley and Bosworth Council before any works to these are carried out.

In order to facilitate an application to obtain permission to develop the area surveyed the Applicant has requested a BS5837 (2012) Tree Survey should be completed to assess the quality of the trees within and close to the boundary of the field and the impact any development may have on these. Inspections of the site were completed on 08th March and also on 04th June 2023. A photographic record of the trees at the site is included within the report.



Figure 1: Site location.

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1.2 Neighbouring Land Uses

The defined site area comprises a small part of a larger, well-maintained, residential garden situated on the north western edge of the village of Stoke Golding. The small plot of land is bounded to the south and east by residential houses with the garden boundaries defined by fencing and hedgerows. To the north is the house at 36 Main Street. To the west the garden of the property

extends across the driveway and lawn to meet the fence of the adjacent residential house. A contextual aerial photograph has been provided below.



Figure 2: Site Contextual Aerial Photograph

Image Copyright Microsoft Mapping 2023

In undertaking the tree survey the assessment has been carried out in accordance with the specifications contained within BS 5837 Trees in Relation to Design, Development and Construction (2012). An inspection of the site and the immediate surrounding areas was completed by Christopher Barker, dipHort, CEnv, an experienced arboricultural consultant.

2. Tree Survey Appraisal Methodology

2.1 Survey Objectives

This tree survey has been carried out with the objective of:

- Identifying the individual tree species present at the site by means of visual inspection;
- To define the approximate age, condition and canopy spread of all individual mature and semi-mature trees identified and the value of these within the development context;
- To identify any trees that present a risk to existing or proposed foundations or other structures that may be constructed on the site and recommend action to remove this risk; and
- Recommend tree management / mitigation measures where appropriate.

The survey broadly assessed the condition and arboricultural value of the trees lying in or adjacent to the site area, paying attention to any mature individual trees present within or adjacent to the site area in order to prepare an assessment in accordance with BS 5837 Trees in Relation to Design, Development and Construction (2012).

2.2 Survey Methodology

The methodology set out below is a summary of the suggested approach to tree assessment as described in British Standard 5837:2012.

Trees have been broadly assessed based on guidance set out within the British Standard BS 5837:2012 'Trees in Relation to Design, Development and Construction'. This standard provides recommendations and guidance on the principles to be applied to achieve successful integration of development with trees, shrubs and hedgerows.

Trees on the site have been divided into one of four categories (based on the cascade chart for tree quality assessment). These are classed as A, B, C or U (Section 4 of BS 5837) within the table in Appendix 1. This gives an indication as to the tree's importance in relation to the site, the local landscape and, also, the value and quality of the existing trees on site.

Category (A): Trees whose retention is most desirable and are of high quality and value. These trees are considered to be in such a condition as to be able to make a lasting contribution (a minimum of 40 years).

Category (B): Trees whose retention is considered desirable and are of moderate quality and value. These trees are considered to be in such a condition as to make a significant contribution (a minimum of 20 years).

Category (C): Trees that could be retained and are considered to be of low quality and value. These trees are in an adequate condition to remain until new planting could be established (a minimum of ten years) or are young trees with a stem diameter below 150 mm.

Category (U): Trees that are considered to have no significant landscape value but it is not presumed that there is any overriding need to remove these unless stated otherwise in the description and recommendations. These include any trees in such poor condition that they cannot be retained in the context of current land use for more than 10 years. They are for this reason not considered as being significant within the planning process.

Species have been recorded by common and scientific name. Height has been estimated in metres and stem diameter measured in centimetres unless impractical, taken at a height of 1.5 m from the base of the tree.

The overall condition of any individual tree, or group of trees, has been referred to using one of the definitions listed below. A more detailed description of condition has been noted in the Tree Schedule.

- G **Good:** A sound tree or trees needing little, if any, attention
- F **Fair:** A tree or trees with minor but rectifiable defects or in the early stages of stress, from which it may recover
- P **Poor:** A tree or trees with major structural and physiological defects or stressed such that it would be very expensive and inappropriate to retain
- D **Dead:** A tree or trees no longer alive. However, this could also apply to those trees that are dying and will be unlikely to recover, or are becoming or have become dangerous

The survey was completed from ground level only. Aerial inspections were not undertaken. Evaluations of tree conditions given within this assessment apply to the date of survey and cannot be assumed to remain unchanged, and it may be necessary to review these within 24 months, in accordance with good arboricultural practice.

2.3 Site Plans & Tree schedules

The position of significant individual trees or groups of trees measured out on the site is shown on the Tree Category Plan **Figure 3**. Within the summary table (**Appendix 1**) a calculated corresponding radius of the circle for each RPA has been calculated. The Root Protection Areas are formulated to assist when designing layouts in relation to trees and the calculated RPA's in Appendix 1 should be used to inform the design layout of this site. Following the completion of the initial survey a conceptual development plan was provided and this has been used to prepare the Tree Protection Plan at **Figure 4**.

3. Tree Survey Findings

3.1 Survey Details

The tree inspection took the form of a walkover inspection completed by Christopher Barker dipHort, CEnv. Each individual semi-mature or mature tree of significance that could be impacted by any proposed new development within the survey area was identified, visually inspected and classified. The character of the trees at the site is shown in photographs contained within this section.

3.2 Mature and Semi-Mature Trees

A total of nine individual trees and one hedgerow / shrub group have been identified and assessed as part of the tree survey.

Damson T1, Leylandii T2 and Ornamental Willow T3 are situated along the western edge of the surveyed garden lining the edge of the existing driveway. T1 is particularly close to the existing gated entrance and starting to crowd this. This tree is also showing some signs of loss of vigour with extensive regeneration within the crown interior. These are all trees of relatively small stature. T1 and T3 are placed within Category C but T2 is a Category B specimen with space to continue to mature for a 20-year period although significant trimming will be required to keep the edge of the crown away from the existing driveway.



Damson T1



Leylandii T2



Ornamental Willow T3



Group G4 Cherry Laurel

Group G4 comprises a dense hedgerow of Cherry Laurel extending along the southern boundary of the garden. Whilst the side of the hedge has been trimmed in the past the top is getting very high. There are gaps appearing and the boundary fence behind the hedge is becoming overgrown. This Cherry Laurel extends along the south boundary almost to the south east corner of the garden.

Cherry T5 is a very small specimen tree of insignificant landscape value. **Cedar T6** and **Ash T7** are positioned in the south eastern quarter of the garden the former further within the garden interior and the latter close to the garden boundary. Both trees are starting to compete with each other for space but at the present time they appear in fairly good condition and have both been placed into Category B. The Cedar has previously been crown lifted to raise the crown above the garden.



Cedar T6



Ash T7

Trees T8, T9 and T10 are pyramidal Leylandii established to screen the north eastern edge of the garden. These three trees provide effective screening to the garden from the east. T9 and T10 are close to the boundary fence with sufficient space to continue to mature. T8 is a slightly smaller tree further into the garden interior starting to compete with T9. All three trees are placed within Category B.



Trees T8, T9 and T10



4. Tree Management

4.1 Initial Arboricultural Assessment

In the context of this site the proposed development will comprise a single detached residential house situated within centre of the garden area surveyed with a new access and driveway constructed in the south western corner. The table below summarises the potential impact of the proposed development on the trees present within the area surveyed.

Ref	Tree	Category	Impact of development
1	Damson <i>Prunus domestica</i>	C2	This tree will have to be removed to provide space for the new access into the property.
2	Leylandii <i>Cupressocyparis Leylandii</i>	B2	This tree will have to be removed to provide space for the new driveway and parking area. Replacement planting will take place elsewhere in the wider garden area controlled by the applicant.
3	Ornamental Willow <i>Salix spp</i>	C2	This tree is not shown within the development plan and is presumably removed to provide space for new landscaping in front of the property.
G4	Cherry Laurel <i>Prunus laurocerasus</i>	C2	This hedge will be trimmed back to 0.7m height and 0.5m spread. It should regenerate quickly and can be trimmed into a tight boundary hedgerow. Temporary ground protection will be laid down after it is trimmed to protect the ground from compaction during construction.
5	Cherry <i>Prunus avium</i>	C2	This tree will be removed to facilitate the proposed development
6	Atlantic Cedar <i>Cedrus atlantica</i>	B1	Due to its proximity to the proposed house this tree will have to be removed to open up garden space for the new property. Replacement planting will take place elsewhere in the wider garden area controlled by the applicant.
7	Ash <i>Fraxinus excelsior</i>	B2	This tree will be retained. The crown and RPA can be fully protected by temporary fencing during construction.
8	Leylandii <i>Cupressocyparis Leylandii</i>	B2	Due to its proximity to the proposed house this tree will have to be removed to open up garden space for the new property. Replacement planting will take place elsewhere in the wider garden area controlled by the applicant.
9	Leylandii <i>Cupressocyparis Leylandii</i>	B2	This tree will be retained. The crown and RPA can be fully protected by temporary fencing during construction.
10	Leylandii <i>Cupressocyparis Leylandii</i>	B2	This tree will be retained. The crown and RPA can be fully protected by temporary fencing during construction.

The removal of trees T1, T2, T3, T5 and T8 from within the garden should have negligible impact on local amenity as these are trees of relatively small stature providing no strategic screening or canopy cover.

The Cherry Laurel G4 along the southern boundary will be heavily trimmed back to a height of around 0.7m and spread of 0.5m This species does respond well to severe cutting back and is highly likely to regenerate quickly with new growth from the base and trimming points. The new growth can be box trimmed into a dense hedge which will screen the garden fence effectively but provide space along the southern side of the building for access.

Cedar T6 will be the only tree of significant stature and quality to be removed from within the garden interior. It is impractical to retain this tree so close to a new house as there will be concern in the future (perceived risk) and pressure to remove or reduce the tree. It is also competing for space with Ash T7 to the south east and has already been crown lifted to allow access under the canopy for

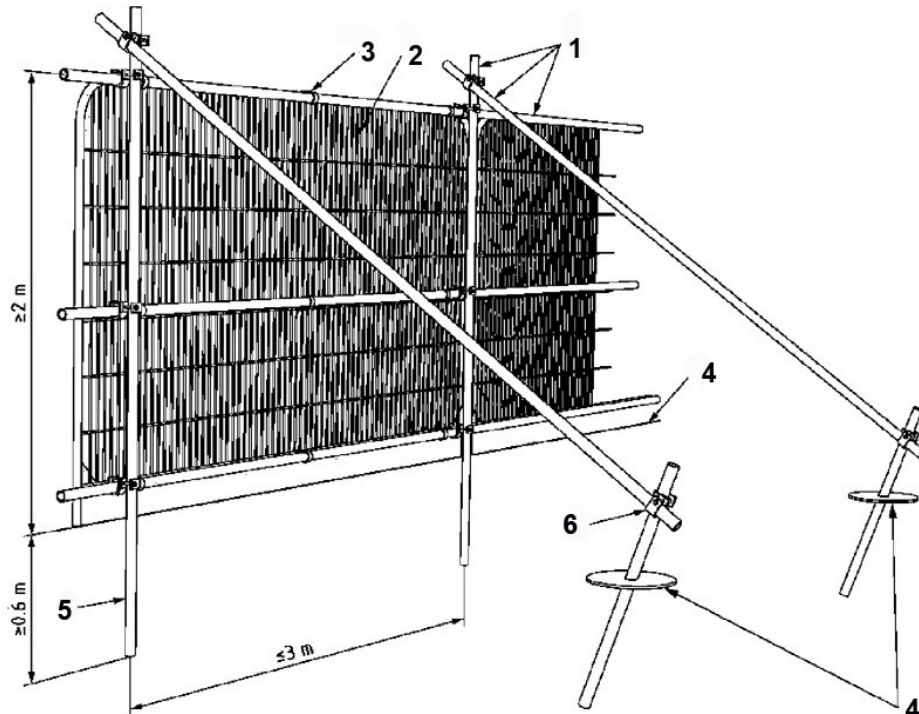
maintenance. Screening of the garden from the east will be maintained by retention of the Ash and Leylandii along the east boundary of the garden. Screening from the west will be reduced although ground level screening from Ash T7 and the garden fencing will be retained. The removal of this particular tree will have to be offset by planting two new native trees of heavy standard size (Oak *Quercus petraea* and Field Maple *Acer campestre*) in a suitable location on or close to the north west boundary of the large garden area where these will have space to mature and develop.

4.2 General Recommendations

The trees along the eastern boundary of the garden and the trimmed back Cherry Laurel hedge along the southern boundary will need to be adequately protected during any approved development works. As a general rule at this site, measures to protect trees should follow the best practice principles set out in BS5837: Trees in Relation to Design, Development and Construction (2012). Prior to any construction or development work proceeding, the RPA's of individual trees to be retained should be marked out using the distances provided in the table within Appendix 1.

Marking out should be completed by a person with arboricultural or horticultural expertise as individual trees will have root zones that may be affected by local conditions and allowances will need to be made to accommodate this. The best practice principles have been broadly summarised below.

- All trees retained adjacent to the site should be protected by barriers or ground protection around the calculated Root Protection Area (RPA) and as indicated on any Tree Constraints Plan (TCP) that may be produced in association with the assessment.
- Any fencing required should be erected prior to commencement of construction and before demolition including erection of any temporary structures. Once set up fences should not be removed or altered without prior consultation with the arboricultural advisor.



1. Standard scaffold poles
2. Heavy Gauge 2m tall galvanised tube and weld mesh infill panels
3. Panels secured to uprights and cross members with wire ties
4. Ground Level
5. Uprights driven into ground until secure (up to 0.6m)
6. Standard scaffold clamps

- Arrangements should be made for an arboriculturalist to supervise works and tree protection where trees are particularly vulnerable or sited close to access points.
- All tree works should follow best practice procedures as set out in BS 3998 (2010). All trees should be maintained in good condition on site and be inspected annually (where overall condition requires) or every 2 years and after any major storm events, with safety a priority.
- Fencing should be clearly visible and suitable for the location, type and proximity of construction activity. It may be appropriate on some sites to use temporary site offices as components of the protection barriers.
- Where it has been agreed and shown on a Tree Protection Plan, construction access may take place within the RPA if suitable ground protection measures are in place (e.g. existing surfaced car park areas). In other areas this may comprise single scaffold boards over a compressible layer laid onto geo-textile materials for pedestrian movements. Vehicular movements over the RPA will require the calculation of expected loading and may require the use of proprietary protection systems.
- Once areas around trees have been protected by fencing, any works on the remaining site area may be commenced providing activities do not impinge on protected areas. Notices should be placed on fencing to indicate that operations are not permitted within the fenced area.
- Wide or tall loads etc. should not come into contact with retained trees. Banksman should supervise transit of vehicles, jibs, booms etc. where this is in close proximity to retained trees.
- Oil, bitumen, cement or other material that is potentially injurious to trees should not be stacked or discharged within 10m of a tree bole. No concrete mixing should be done within 10m of a tree. Allowance should be made for the slope of ground to prevent materials running towards the tree.
- No fires will be lit where flames are anticipated to extend to within 5m of tree foliage, branches or trunk, taking into consideration wind direction and size of fire. Notice boards, telephone cables or other services should not be attached to any part of a retained tree.
- Where it is deemed necessary to operate a wide or tall load, plant bearing booms, jibs and counterweights or other such equipment, as part of construction works, and such equipment would have potential to cause injurious contact with crown material i.e. low branches and limbs, of retained trees within the RPA fencing, it is best advised that appropriate, but limited tree surgery, be carried out beforehand to remove any obvious problem branches. This is classed as 'Facilitation Pruning' within BS 5837 (2012). Any such pruning should be undertaken in accordance with a specification prepared by an arboriculturalist.
- In the event of having caused any such branch or limb damage to retained trees it is strongly recommended that suitable tree surgery be carried out, in accordance with BS 3998 (2010) Recommendations for Tree Work, to correct the damage, upon completion of development.



Christopher Barker CEnv dipHort

Appendix 1: BS5837 Tree Schedule

Key:	Measurements	Age – Class	Overall Condition	BS 5837 2012 : Cascade Chart for Quality Assessment/Retention Category	Symbols:
	MS – Multi-stemmed	YNG-MAT-Young Mature	G – Good	A – High	< = less than
	Ht - Height in metres	SM – Semi-mature	F – Fair	B – Moderate	~ = approximately
	Stem – Stem Diameter at 1.5m in mm	Mat – Mature	P – Poor	C – Low	> = greater than
	Crown – Crown spread in metres	OM – Over mature	D – Dead	U – Trees of negligible significance	
	TD - Trunk division (height in metres)	Est Yrs – estimate of years remaining (>40 years; 20 –40 years; <20 years)		Sub-categories: 1 = mainly arboricultural values 2 = mainly landscape values 3 = mainly cultural values.	

RPA = Root protection area (equivalent to a circle with a radius 12 x the stem diameter for single stem trees and 10 x the basal diameter for trees with more than one stem arising below 1.5m above ground level).

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T1	Damson <i>Prunus domestica</i>	10	315	N-2 S-3 E-3 W-2	3	M	10	F	Broadly ascending with internal regeneration. Starting to crowd the entrance to the driveway. No structural faults visible from ground level		C2	3.7
T2	Leylandii <i>Cupressocyparis Leylandii</i>	8	230	N-2 S-2 E-2 W-2	1	SM	20+	G	Conical canopy close to the driveway. No structural faults visible from ground level		B2	2.7
T3	Ornamental Willow <i>Salix spp</i>	4	210	N-2 S-2 E-2 W-2	2	Y	10	F	Small round crown lifted above the lawn. No structural faults visible from ground level		C2	2.5
G4	Cherry Laurel <i>Prunus laurocerasus</i>	3-4	<180	N-2 S-2 E-2 W-2	0	M	10	F	Irregularly trimmed hedge starting to spread. No structural faults visible from ground level	Requires significant trimming back to create a dense, manageable hedge	C2	2.1
T5	Cherry <i>Prunus avium</i>	3	100	N-1 S-2 E-1 W-1	0	Y	10	F	Very small specimen tree extending slightly to the south No structural faults visible from ground level		C2	1.8
T6	Atlantic Cedar <i>Cedrus atlantica</i>	18	555	N-5 S-5 E-4 W-5	2	M	20+	G	Open, broadly conical but heavier on the west side. No structural faults visible from ground level but crowded by T7		B1	6.6

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T7	Ash <i>Fraxinus excelsior</i>	20	605	N-7 S-6 E-5 W-5	5	M	20	F	Irregular, open crown appears fairly sparse. Lifted over the adjacent gardens. No structural faults visible from ground level		B2	7.2
T8	Leylandii <i>Cupressocyparis Leylandii</i>	12	210 100 100 50	N-2 S-2 E-2 W-2	0	SM	20+	G	Broadly conical. No structural faults visible from ground level		B2	3.1
T9	Leylandii <i>Cupressocyparis Leylandii</i>	15	310	N-2 S-2 E-2 W-2	2	M	20+	G	Broadly conical. No structural faults visible from ground level		B2	3.7
T10	Leylandii <i>Cupressocyparis Leylandii</i>	12	380	N-2 S-3 E-3 W-3	0	M	20	F	Broadly conical. No structural faults visible from ground level		B2	4.5