



ARBORICULTURAL
CONSULTANTS

mhp

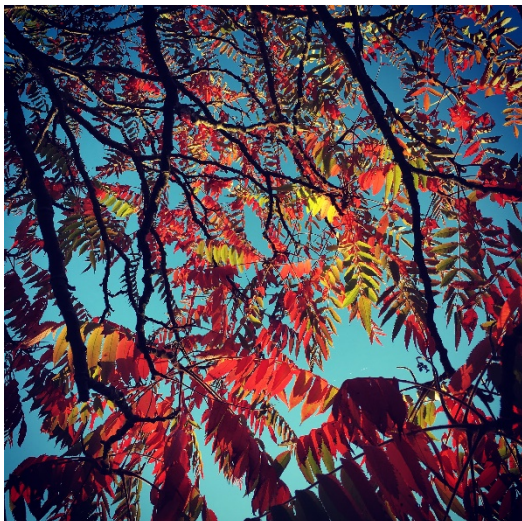
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Chartered Arboriculturist



TREE SURVEY REPORT

At:

NORTH RYE HOUSE (BARNs AREA),
DONNINGTON



On behalf of:

MR & MRS REDWOOD

MHP ref: 21246 NORTH RYE HOUSE, DONNINGTON_TS_BARNs AREA_V1

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Issue record

Date	Version	Notes
16.09.2021	V1	Initial issue

1 INTRODUCTION

1.1 Introduction

1.1.1 My name is Matt Reid. I am a chartered arboriculturist with 20 years industry experience. I hold the Level 6 Diploma in Arboriculture (ABC Awards) as well as other technical and trade level qualifications. I am a professional member of both the Arboricultural Association and of the Institute of Chartered Foresters.

1.1.2 I have worked in the arboricultural industry since 1999. My initial trade and professional experience comprised six years as an arboricultural contractor and climbing arborist. Following this I spent seven years as a local government tree officer. Since 2012 I have worked in private practice as an arboricultural consultant specialising in planning related matters and tree risk management.

1.2 Instruction and scope

1.2.1 I am instructed by Mr & Mrs Redwood to visit the site and to carry out an assessment of arboricultural features in accordance with British Standards (BS) 5837:2012 'Trees in Relation to Design Demolition and Construction – Recommendations'.

1.2.2 I am to prepare the following information in relation to the planning application:

- Tree survey schedule of findings
- Tree Survey and Constraints Plan
- Provide general design advice relating to trees.

2 GENERAL

2.1 Statutory tree protection and other designations

2.1.1 I have carried out the following desk-based tree-related constraints checks in relation to the site.

	General summary information	Relevant to site?
Conservation Area ¹	<ul style="list-style-type: none"> All trees with a trunk diameter greater than 75mm at 1.5m height are protected in the same way as for TPO (see below). Six weeks' notice must be given to the Local Planning Authority (LPA) prior to carrying out any tree works so that possible requirement for TPO can be assessed. 	No
Tree Preservation Order (TPO) ²	<ul style="list-style-type: none"> It is an offence to cut down, uproot, top or lop, wilfully damage or wilfully destroy relevant trees or woodlands. Formal permission must be applied for (and granted) by the LPA before carrying out tree works. Penalties of up to £20K (Magistrates Court) or unlimited fine (Crown Court). 	No
Timber volume	<ul style="list-style-type: none"> Forestry Act 1967 limits felling of volumes of timber in any calendar quarter to 5 cubic metres (m³) unless a Felling Licence has been issued by the Forestry Commission. Any felling beyond this threshold may result in prosecution and/or issue of a Restocking Notice 	Yes
Ancient woodland ³	<ul style="list-style-type: none"> Ancient Woodland is broadly defined as land that has been continuously wooded since 1600AD. It is irreplaceable habitat and is afforded a high level of protection by the National Planning Policy Framework (NPPF). 	No
Ancient/veteran trees ⁴	<ul style="list-style-type: none"> Broadly defined as trees that are old for their species that have biodiversity, cultural and heritage value. Like ancient woodland such trees are irreplaceable habitats and are afforded a high level of protection by the National Planning Policy Framework (NPPF). 	No
<p>Note: specific exceptions and exemptions do apply in relation to the summary information above. Where relevant these are highlighted in the following paragraphs.</p>		

¹ [My Cotswold: Cotswold District Council a](#) Accessed 16.09.2021.

² [My Cotswold: Cotswold District Council a](#) Accessed 16.09.2021.

³ <https://magic.defra.gov.uk/magicmap.aspx> Accessed 16.09.2021.

⁴ <https://ati.woodlandtrust.org.uk/> Accessed 16.09.2021.

2.2 Limitations

- 2.2.1 In some instances, I have been unable to access or clearly observe the trunks of trees as they are offsite. Where this is the case, I have made my best endeavours to accurately estimate dimensions and tree condition.
- 2.2.2 Trees are living organisms and self-supporting dynamic structures. Their physiological and structural condition can change rapidly in response to a wide range of biotic/abiotic factors. As such, the findings and recommendations of my tree survey are limited to 24 months from the date of my site visit.

2.3 Wildlife informative

- 2.3.1 Tree works should not be carried out until a reasonably detailed inspection of relevant trees has been carried out to determine if bat roosts and/or bird nests are present.
- 2.3.2 It is a criminal offence to intentionally damage/destroy the nest of any wild bird while it is in use or being built. Similarly it is an offence to intentionally/recklessly disturb roosting bats or to damage or destroy a bat roost.
- 2.3.3 The Arboricultural Association publishes useful advice in relation to trees and nesting birds⁵. Helpful advice with regards to bats and tree work is published by the UK Government⁶, the Arboricultural Association⁷ and The Bat Conservation Trust⁸.

⁵ <https://www.trees.org.uk/Help-Advice/Public/When-is-the-bird-nest-season>

⁶ <https://www.gov.uk/guidance/bats-protection-surveys-and-licences>

⁷ <https://www.trees.org.uk/Help-Advice/Public/Bats-and-trees-Who-does-what-where>

⁸ <https://www.bats.org.uk/about-bats/where-do-bats-live/bat-roosts/roosts-in-trees>

3 ARBORICULTURAL SURVEY

3.1 Site visit

3.1.1 I visited the site on 16th August 2021.

3.2 Findings

3.2.1 My findings are set out within the Tree Survey Schedule with explanatory key at **Appendix 1**.

4 TREE SURVEY AND CONSTRAINTS PLAN

4.1 General

4.1.1 The constraints posed by the surveyed arboricultural features on site to the proposed development are shown on the Tree Survey and Constraints Plan at **Appendix 2**. The Plan describes the baseline of above and below ground constraints that are posed by trees on the site.

4.2 Tree retention/removal

4.2.1 The surveyed arboricultural features are represented on the Plan using colour coding (explained in the Tree Survey Schedule key) to indicate their quality and indicate the extent to which they are suitable for retention.

Design advice

4.2.2 The design should seek to achieve a harmonious and liveable spatial relationship between trees and new structures. In practice, achieving such a successful juxtaposition requires a pragmatic approach that may well require some tree removals coupled with inclusion of considered compensatory tree planting from the outset of the design process.

4.2.3 In general, High and Moderate quality trees should be prioritised for retention over Low quality trees or trees that are Unsuitable for retention. Care should be taken to avoid misplaced tree retention as retaining too many/unsuitable trees may well result in an unviable tree stock in the longer term. Effective tree retention should focus on better quality 'Key Trees'

4.3 Key Trees - below ground constraints

4.3.1 Effective tree retention requires that the 'invisible' parts of the tree beneath the ground are not harmed. Tree roots can be damaged by:

- Root severance – for example, by ground works or excavations for services/foundations.
- Soil compaction – for example by passage of heavy plant or repeated pedestrian access.

- Contamination by spilled materials – for example by cement mixing, diesel spills.

Design advice

- 4.3.2 Root Protection Areas (RPAs), for the surveyed trees are plotted onto the Tree Survey and Constraints Plan and are shown as a circular broken red line centred on the base of each tree stem.
- 4.3.3 As a default, structures (including hard surfacing) should always be located outside RPAs. However, if there is an overriding justification for development within an RPA, further arboricultural advice should be sought. This will enable best understanding of a tree's likely resilience and whether technical solutions can be used to prevent significant harm.
- 4.3.4 On shrinkable soils, foundation design must also consider potential for vegetation-related change in soil moisture content and associated risk of subsidence and/or soil heave.
- 4.3.5 The design process must also consider the proximity of structures and the potential for incremental root growth to result in future damage to structures.

4.4 Key trees - above ground constraints

- 4.4.1 Above ground parts of trees can be damaged in several ways during the construction process. For example,
- Impact damage through contact with construction site activities
 - Inappropriate pruning.

Other factors, for example, heat damage caused by bonfires.

Design advice

- 4.4.2 In order to avoid above ground damage, the design must also consider the capacity for trees to have an overbearing or dominating effect as they continue to grow near occupied dwellings.
- 4.4.3 Potential overbearing effects requiring consideration often comprise a combination of inconveniences. For example:
- Increased size and dominance giving rise to perceived risk of harm caused by tree failure in stormy conditions.
 - Excessive shading.

- Branch spread dominating gardens or contacting with structures,
- Seasonal nuisance such as leaf loss or mess associated with aphid honeydew.

4.4.4 If not adequately considered, above ground constraints can lead to incremental pressure to fell or heavily prune retained protected trees.

4.4.5 Above ground constraints are represented on the Plan by the outline of the tree crown and a radial "shade" area extending a distance equivalent to the height of the tree in a north-west direction through to an easterly direction. Aspects of the design that require reasonable daylighting should be situated outside of these areas.

4.5 Veteran/Ancient trees or Ancient Woodland

4.5.1 Paragraph 175 of the National Planning Policy Framework (NPPF) affords great weight to the importance of ancient woodland, veteran and aged trees, stating, "*development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists*". For clarity, The Framework also clarifies what is meant by "*wholly exceptional*" at its footnote 58.

4.5.2 Government guidance⁹ requires a minimum of a 15 metre (m) buffer zone between Ancient Woodland and new development, although a larger buffer may be required in the event that impacts are likely to extend beyond this distance. Similarly, Ancient and Veteran trees are afforded proportionately larger RPAs than those defined by BS5837.

⁹ <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>

5 CONCLUSION & RECOMMENDATION

5.1 Conclusion

5.1.1 I conclude that the site is suitable for development, provided that the design process reasonably incorporates relevant arboricultural constraints that are indicated on the Tree Survey and Constraints Plan; for the following key reasons:

- The site contains significant areas of land where Key Trees do not act as material constraints and which can therefore be used for development.
- Collaborative layout design can incorporate adequate space for Key Trees and considered new tree planting.

5.2 Recommendation

5.2.1 I recommend that:

- The Tree Survey and Constraints Plan is used to inform layout design in relation to Key Trees.
- Design iterations for the site incorporate arboricultural input with a view to achieving appropriate tree retention and avoiding harm to Key Trees.
- Arboricultural collaboration with relevant local planning authority Officers takes place with a view to identifying and dealing with concerns and thereby achieving sustainable planning outcomes.

Tree survey report
North Rye House (Barns Area), Donnington
Instructed by Mr & Mrs Redwood

APPENDIX 1 – TREE SURVEY SCHEDULE

TREES

Ref	Common name	Height (m)	Est	Stem dia (mm)	Est	N	Est	E	Est	S	Est	W	Est	Life stage	Special status	General observations & management recommendations	Struct. cond.	Phys. cond.	ULE	Quality grading	RPA radius (m)	RPA area (m2)	TPO
T1	Turkey oak	30	-	1380	-	12	#	13	#	12	#	13	#	M	None	Prominent open grown feature tree.	Good	Good	40+	A1	17	861	None
T2	Hybrid black poplar	31	-	630	-	6	#	5	#	4	#	5	#	EM	None	End tree of linear group of 6 poplar. Prominent and attractive yet incongruous and relatively short-lived.	Good	Good	20+	B1	8	179	None
T3	Hybrid black poplar	32	-	600	-	3	#	7	#	3	#	6	#	EM	None	Large bark wound at base with exposed heartwood.	Fair	Good	10+	C1	7	163	None
T4	Hybrid black poplar	32	-	680	-	3	#	7	#	3	#	7	#	EM	None	Reasonable condition and consistent with the empress of the group,	Good	Good	20+	B1	8	209	None
T5	Hybrid black poplar	31	-	480	-	2	#	5	#	3	#	5	#	EM	None	A more suppressed tree with high H/d ratio.	Fair	Good	20+	B1	6	104	None
T6	Hybrid black poplar	31	-	730	-	6	#	6	#	3	#	6	#	EM	None	Reasonable condition and consistent with the empress of the group,	Good	Good	20+	B1	9	241	None
T7	Hybrid black poplar	30	-	950	-	4	#	8	#	10	#	8	#	EM	None	End tree of linear group of 6 poplar. Prominent and attractive yet incongruous and relatively short-lived. Crown form weighted south.	Good	Good	20+	B1	11	408	None
T8	English oak	25	-	1300	-	12	#	12	#	12	#	13	#	M	None	Prominent open grown feature tree.	Good	Good	40+	A1	16	764	None

KEY

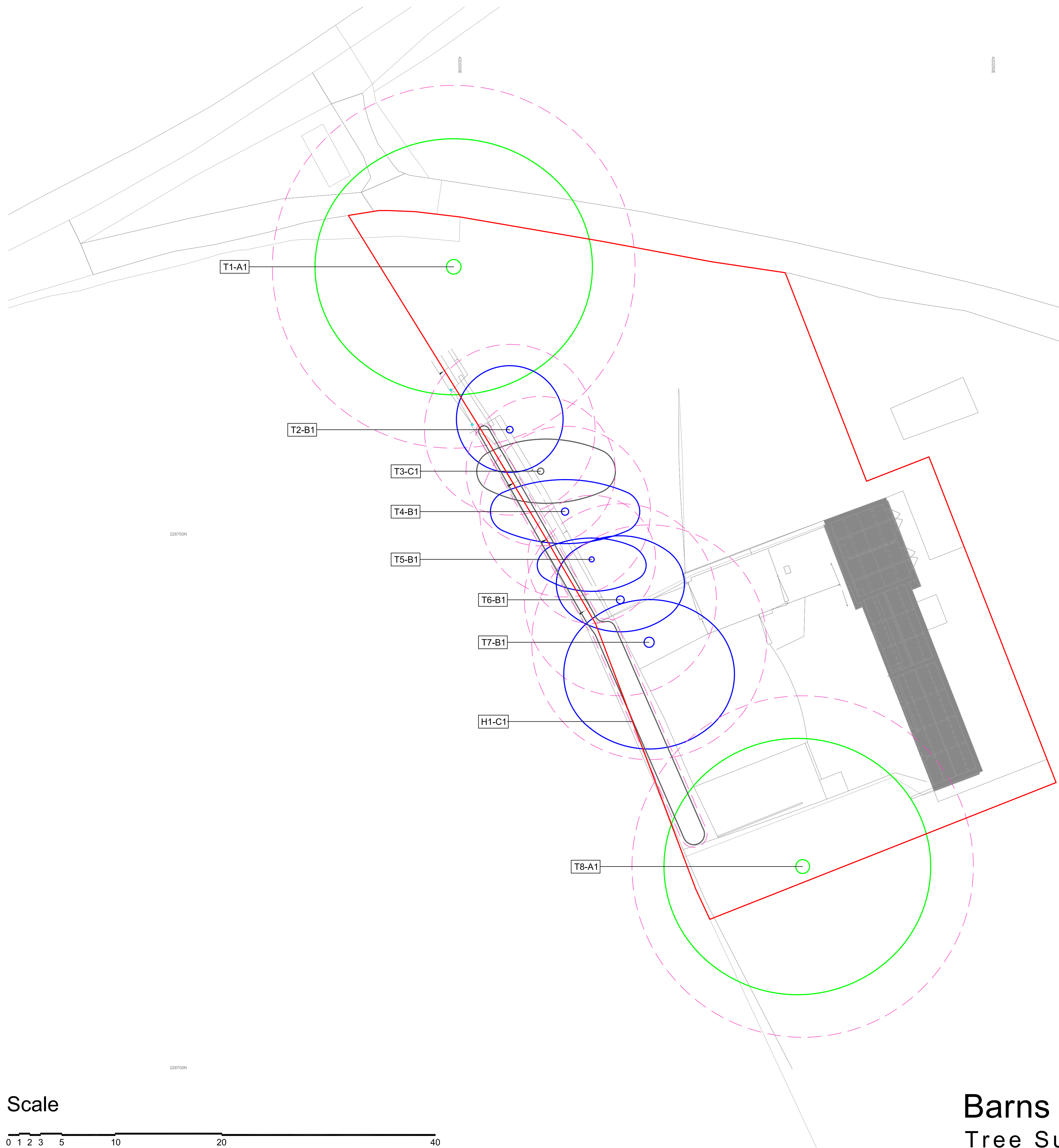
Assessment criteria	Description
Reference number on plan	T: Tree, G: Group, W: Woodland, H: Hedgerow. This reference is recorded on the Tree Survey and Constraints Plan against the relevant survey item.
Common name (Scientific name)	Common names: normal type. Scientific names where required: italic type in brackets
Heights	Unit: metres (m). Recorded to the nearest half metre for heights upto 10m and to the nearest whole metre for heights above 10m.
Stem diameter	Unit: millimetres (mm). Rounded to the nearest 10mm. Single and multi-stemmed trees are measured at 1.5m above highest ground level or otherwise as in accordance with Annex C, BS5837:2012.
Estimates	Measured tree dimensions are identified by an '-' in the adjacent 'Estimate' column. Where dimensions have been estimated (offsite, or otherwise inaccessible survey items) this is clearly identified by a '#' in the adjacent 'Estimate' column.
Crown spread	Unit: metres (m). Directions refer to the four compass points (north, east, south, west). Dimensions are rounded-up to the nearest half metre for heights up to 10m and to the nearest whole metre for heights above 10m.
Estimated average lateral spread	Unit: metres (m). For hedgerows only. An estimate of the average width between branch tips.
Life stage	Y – young (stake dependent), SM - Semi-Mature (still capable of being transplanted without preparation, up to 30cm girth and not yet sexually mature), EM – Early Mature (not yet having reached 75% of expected mature size), M – Mature (anything else up to normal life expectancy for the species), OM – Over Mature (anything beyond mature and in natural decline), V – Veteran, A - Ancient (any tree displaying characteristics described by the Ancient Tree Forum and referenced by Natural England).
Special status	<ul style="list-style-type: none"> None Veteran: any tree judged to meet criteria as defined by the Ancient Tree Forum Ancient: any tree judged to meet criteria as defined by the Ancient Tree Forum¹

¹ LONSDALE, D. (Ed). Ancient and other veteran trees: further guidance on management. The Tree Council. London. 2013.

Assessment criteria	Description
General observations and preliminary management recommendations	General observations are recorded in relation to a survey item's structural and/or physiological condition (eg the presence of any decay and physical defect) and /or any preliminary management recommendations that may be appropriate.
Structural condition	<ul style="list-style-type: none"> • Good: without any observable significant biomechanical structural weaknesses • Fair: with minor biomechanical structural flaws. Some remedial action may be required • Poor: with significant biomechanical weaknesses requiring intervention particularly where risk management is required.
Physiological condition	<ul style="list-style-type: none"> • Good: no indications of impaired physiological function and in optimum condition for age and species • Fair: with indicators of reduced vitality. Some intervention may be required • Poor: with significantly impaired physiological function for age and species
Remaining contribution	Useful life expectancy, or the length of time a tree's is estimated to be able to make a useful contribution, is expressed in years as: <10, 10+, 20+, 40+.
Quality grading	<p>Assessed in accordance with Table 1, BS5837:2012. Colours relate to depiction on the Tree Constraints Plan.</p> <ul style="list-style-type: none"> • Category A (Green) Trees of high quality with an estimated remaining life expectancy of 40 years • Category B (Blue) Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. • Category C (Grey) Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. • Category U (Red) Unsuitable for retention. Trees in such a poor condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. <p>Note - A, B and C trees are also given a sub-category of 1, 2 or 3 which reflects their arboricultural, landscape or cultural and conservation values respectively. Each subcategory has an equal weight, for example an A1 tree has the same retention priority as an A3 tree. More than one sub-category may be applied to a survey item as appropriate.</p>
RPA radius	Root Protection Area (RPA): a layout design tool. Unit: metres (m). Radial distance from tree centre to define a circle that indicates on the Tree Survey Plan the minimum rooting area required to maintain tree's viability. Calculated in accordance with Annex D, BS5837:2012
RPA area	Unit: square metres (m ²). The area of the RPA radius circle described above. Applies only to individual trees.

Tree survey report
North Rye House (Barns Area), Donnington
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APPENDIX 2 – TREE SURVEY AND CONSTRAINTS PLAN

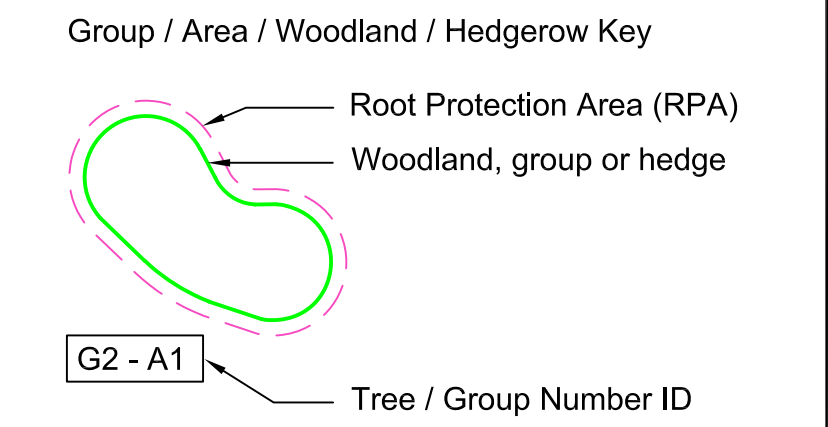
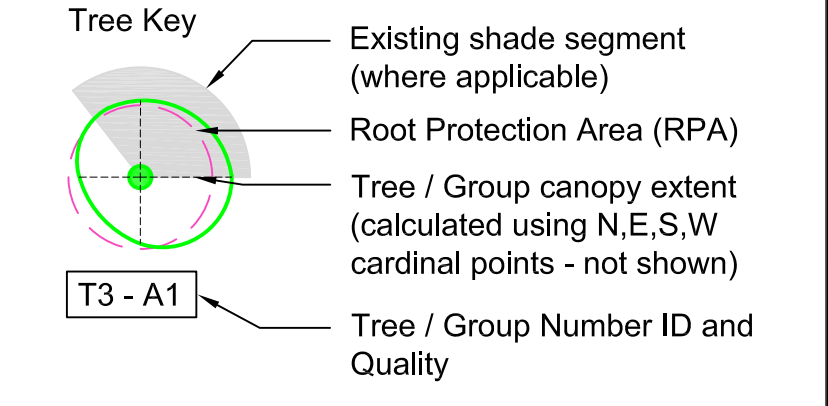


Key
 Approximate site boundary

Quality and Suitability For Retention

- Category A - High quality and value (Highly desirable for retention)
- Category B - Moderate quality and value (Desirable for retention)
- Category C - Low quality and value (Optional for retention)
- Category U - Poor quality and value (Unsuitable for retention)

Root Protection Areas (RPA)
 Root Protection Areas (RPA) identified are in accordance with BS5837:2012. RPA's are shown as a pink dashed polyline

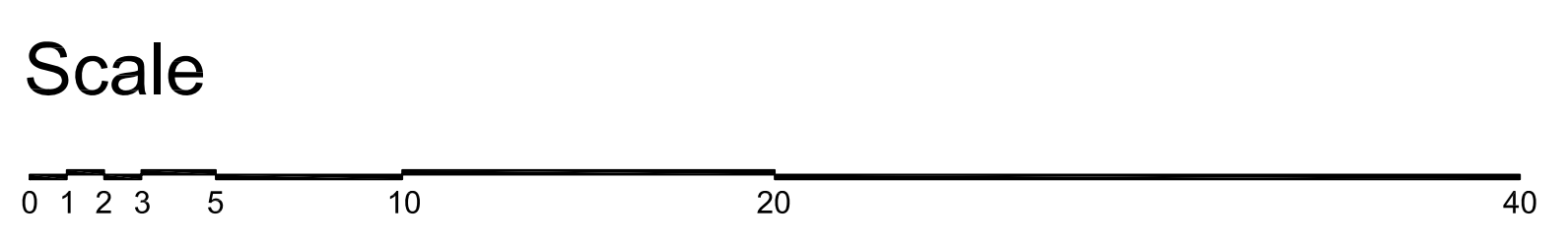


Notes

- 1) Survey Date 16th August 2021.
- 2) This drawing has been produced to be printed in colour. If you have been given this drawing in monochrome please request a colour version.
- 3) Do not scale directly from this drawing.
- 4) This drawing is to be read in conjunction with all other relevant MHP drawings and information supplied by other consultants.

Tree number on plan	Common name	Quality grading	RPA radius (m)	Protected status
T1	Turkey oak	A1	17	None
T2	Hybrid black poplar	B1	8	None
T3	Hybrid black poplar	C1	7	None
T4	Hybrid black poplar	B1	8	None
T5	Hybrid black poplar	B1	6	None
T6	Hybrid black poplar	B1	9	None
T7	Hybrid black poplar	B1	11	None
T8	English oak	A1	16	None
H1	Hawthorn	C1	As shown on plan	Na

Revisions: _____
 Project: Barns Area, North Rye House, Donnington
 Client: Yiangou Architects
 Title: Tree Survey and Constraints Plan
 Drawing number: 21246.501 Rev: _____
 Status: FOR INFORMATION
 Drawn By: GW Checked By: MR Date: 02-09-21 Scale @ A1: 1:200



Barns Area, North Rye House Tree Survey and Constraints Plan

