Tree Survey and Impact Assessment

for land at

Oak and Apple Tree Cottage,
Winchester Road,
Boorley Green,
Botley,
SO32 2DH

Client

McCarthy Stone

July 2024

2249-KC-XX-YTREE-TreeSurvey-and-ImpactAssessment-RevA

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CAVEATS

This report has been prepared for planning purposes only. It is not intended for the detailed design of foundations that requires a much finer level of detail to ensure a cost-effective scheme of foundations.

This report considers the health and safety of the trees in their context at the time of survey. Trees are natural organisms subject to change and a range of weather conditions. This report can only be relied on for a period of twelve months or immediately prior to detailed designing of site layout (if phased) to ensure hazards posed by trees can be identified and resolved.

We rely on Council and Government websites for factual information in respect of sites. Experience reveals these are not always reliable. Further checks should be made in advance of undertaking any work to trees.

Keen Consultants accept no responsibility or liability for any use that is made of this document other than by the client for the purpose for which it was commissioned and prepared.

Document history

Revision	Issue Status	Details	Approved/Date
Rev0	Final	Initial combined Tree Survey and Impact Assessment	JK / 03 July 2024
RevA	Final	Updated Tree Survey and Impact Assessment	JK / 25 July 2024

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1.0 Introduction

1.1 This tree survey sets out the information about trees to inform the planning process about the quality of trees on site. Following the tree survey the information is extended to consider the impact to them from the proposed development and how construction may proceed whilst ensuring trees are successfully retained.

1.2 In this report we consider the proposals for development of the site. We consider those proposals in relation to the survey of trees we conducted as part of the site analysis.

1.3 The area subject of this survey consists of a broadly rectangular parcel of land situated west of Winchester Road, Boorley Green, Botley.

1.4 The site is surrounded by residential properties, both existing and recently built. To the east of Winchester Road is the MacDonald Botley Park Hotel and Spa.

1.5 The site consists of a paddock together with some outbuildings and containers. The paddock is broadly level and bounded on all sides by hedgerow.

1.6 The paddock contains some small fruit trees that are of recent origin.

1.7 Within the northern and northeastern hedgerows are established oak trees of varying quality. They contribute to the tree landscape of the area.

1.8 At the time of the tree survey we checked the online portals, including Eastleigh Borough Council for statutory protection of trees applicable to the site. Online portals are not always reliable so before works are undertaken to trees a direct enquiry with the Council should be made.

- TREE PRESERVATION ORDERS - details were available online and showed that there are NO Tree Preservation Orders protecting trees upon the site.
- CONSERVATION AREAS - details were available online and confirmed that the site IS NOT within a Conservation Area.
- The MAGIC information portal revealed that Ancient and Semi-Natural Woodland IS NOT located within/adjacent to the site. Land upon the site IS NOT listed on the Priority Habitat Inventory - Deciduous Woodland (England)
- The online portal of the Woodland Trust, Ancient Tree Inventory, revealed that there are NO veteran trees recorded on site.

1.9 Nationally adopted guidance has been followed in the preparation of this report. *BS5837:2012: Trees in relation to design, demolition and construction – Recommendations* sets out a structure approach to considering trees during the development process. Guidance is given on the surveying of trees, the protected space that should be allocated to trees, what elements may give rise to harm to trees and what techniques can be deployed to minimise harm.

1.10 Sustainable development requires the coordination between disciplines throughout the project, accordingly the package of arboricultural information supports the design process and follows through to construction ensuring effective tree protection. We recognise the need to integrate with other disciplines to achieve a balanced approach to development proposals.

1.11 We set out how our key elements interact with others at Appendix1 of this report. The appendix provides comprehensive information about the stages of providing tree information within the planning process.

1.12 Further explanatory notes about tree survey information are given in Appendix2.

2.0 Tree survey

2.1 The objective of this tree survey is to assess the significant trees and woody vegetation on the site to obtain dimensions, assess their quality and evaluate their condition to provide sufficient information to enable decisions to be made on planning aspects of the site and its potential development.

2.2 The tree survey:

2.2.1 was conducted on the 22 January 2024 by Jago Keen, MSc, Dip.Arb., MArborA, MICFor from ground level, in accordance with the guidance in British Standard *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations*;

2.2.2 is intended for planning purposes only;

2.2.3 is not intended for the detailed design of foundations (further information upon vegetation can be provided upon request);

2.2.4 is not a detailed health and safety condition survey of trees;

2.2.5 recommends only preliminary works. Tree works required to achieve the scheme of development will be considered as part of the Impact Assessment and detailed on the Tree Protection Plan;

2.2.6 places reliance on the topographical survey.

2.3 Details of each tree are recorded in the Schedule of Trees at Appendix3.

2.4 Site soil investigations have not been conducted. The (online) 'Geology of Britain Viewer' that contains British Geological Survey materials © NERC [2018] reveals the following soil information:

2.4.1 Bedrock geology: Wittering Formation - Sand, silt and clay.

2.4.2 Superficial deposits: None recorded.

2.5 Survey information is used to prepare the constraints posed by trees on development. These constraints are shown on the Tree Constraints Plan. The Plan shows root protection areas prescribed by the guidance within BS5837 paragraph 4.6.2 and adjusted where appropriate as recommended in subsequent paragraph 4.6.3. The root protection area (RPA) is the minimum extent of rooting required to sustain the tree.

2.6 Trees change over time hence the contents of this survey can only be relied upon for a period of up to two years. The survey should be refreshed after two years or immediately prior to the design of detailed site layouts where they are phased.

3.0 Application of survey information

3.1 Trees place constraints on sites but they also provide opportunities in order to achieve optimum use of the site and location of built structures. This is set out below:

Avoid

The starting point of site layout design should be to avoid the RPA. Ideally, structures should be outside the root protection area to provide working space for construction however protection measures can be taken if such clearance, in isolated cases, is not achievable.

Mitigate

Where intrusion within the RPA is unavoidable then its impact on the tree can be mitigated by specialist measures:

a) Foundations that avoid trenching e.g. screw piles, suspended floor slabs or casting at ground level for lightweight structures such as bin and cycle stores.

b) Limited use may be made for parking, drives or hard surfaces within the root protection areas, subject to advice from a qualified arboriculturist. Cellular confinement systems that enable hard surfaces to be built above existing soil levels are acceptable methods.

c) Service runs that cannot be routed outside the root protection area(s) can be installed by, for example, thrust boring, directional drilling, air excavation or hand digging. These operations often require supervision by the project arboriculturist.

Compensate

Replacement planting can ensure the continuity of tree cover where tree removal is unavoidable. Offsite provision may be considered in some circumstances but this will require negotiation with the local planning authority.

4.0 Assessment of impact upon trees

4.1 This assessment will consider the impact upon trees of implementing the proposals shown on the drawings listed below:

Table 1 - List of drawings referred to in the impact assessment

Originator	Drg No	Title
Terrafirma	SO_2977_03_LA-002 Rev P08	Landscape General Arrangement
Paul Basham Associates	034.0171-0002 Rev P01	Visibility Splays
Keen Consultants	2249-KC-XX-YTREE-TCP01Rev0	Tree Constraints Plan
Keen Consultants	2249-KC-XX-YTREE-TPP01RevA	Tree Protection Plan

4.2 Site proposals considered in this application include:

4.2.1 Retirement-living accommodation

4.2.2 Access, parking and other hard surfaces

4.2.3 Utilities, services and SuDS schemes

4.2.4 New and replacement tree planting

4.3 The proposals are considered with reference to the following guidance documents referred to in this report:

Table 2 - List of documents used to inform the impact assessment

Originator	Title/Reference
British Standards Institute	*BS5837:2012 Trees in relation to design, demolition and construction – Recommendations*
Trees and Design Action Group	*Trees in the townscape: A guide for decision makers*
Ministry of Housing, Communities and Local Government	*National Planning Policy Framework (NPPF)*

4.4 National planning policy (paragraph 136 of the NPPF refers) makes clear the important contribution made by trees to the character and quality of built environments. Trees help to mitigate and adapt to climate change. The application proposals are respectful of the benefits trees provide and have been developed to ensure the retention of trees and the incorporation of new trees within the layout.

4.5 In summary, the proposals seek to retain all significant trees and are arranged sympathetically with the retained trees. New tree planting is proposed to supplement the retained trees and deliver a net gain of trees to the area.

Impact of application proposals

4.6 The layout of built-form has been informed by the tree survey and results in a good arrangement with the trees, embracing their presence and ensuring space for them to flourish.

4.7 The apartment building is located remote from the trees and enjoys good separation whereby the trees exert little influence on the dwellings.

4.8 The building can be constructed with no material harm to the trees other than the loss of stems from a group of sporadic, and diminutive, fruit trees (number 3 in the tree schedule). Group 11, a small cluster of blackthorn, are also removed to accommodate the building. None of these trees is of any particular merit to warrant their retention.

4.9 The two semi-detached dwellings in the southern part of the site are also remote from trees. There is no harm to trees from their construction and they are not unduly influence by the presence of the retained trees.

4.10 Access to the site, from Winchester Road, broadly coincides with the existing access. As a consequence it can be achieved with minimal impact to trees. There is a need to remove a short section of hedge number 26. This sparse section of hedge contributes little and so the loss of short section results in no material diminution of the frontage vegetation. Localised trimming of the hedges on either side of the access is required to maintain the visibility splay, the same as is required for the current access.

4.11 The access leads to the north and south of the apartment building serving an arrangement of parking that all lies outside the root protection area of the trees. As the access and parking extend toward the south so there is a need to remove the remainder of the scattered fruit trees, group number 3. None of these trees is of any particular merit.

4.12 Toward the northern boundary of the site a turning head is proposed. One corner of the turning head intrudes marginally within the root protection area of an adjoining oak tree, one of group number 15. Given the large rooting environment this tree enjoys, I consider the minor intrusion can be tolerated by the tree. As such there is no need to utilise specialist forms of construction for the turning head.

Impact of drainage and services

4.13 The proposed drainage and services are not shown on the proposed layout however there is ample scope to locate them outside of root protection areas and require no specialist measures for their installation.

4.14 If services do need to be installed within root protection areas then specialist techniques for their installation will be needed. Such specialist techniques include moling, thrust-boring, broken trench or excavation by AirSpade.

4.15 No other installations, including mechanical and electrical equipment, are proposed in an area that would be of detriment to trees.

5.0 New and replacement tree planting

5.1 The development proposals bring forward opportunity to plant a selection of trees throughout the development. New trees are proposed to be planted amidst the layout. These trees add to the current tree diversity and deliver a net gain of trees on the site.

5.2 Retaining existing trees and introducing new trees ensures a resource of trees in places where residents and visitors alike will enjoy multiple benefits provided by the tree stock. In so doing the tree stock will be able to withstand climate change, protecting and enhancing the resources of soil, air, water, landscape, amenity value, culture and biodiversity, and increasing the contribution that trees make to the quality of life. In that respect the proposals are in line with the very latest guidance, in terms of integrating trees with built form, contained in *Trees in the townscape: A guide for decision makers* produced by the Trees and Design Action Group and the requirement of paragraph 136 of the National Planning Policy Framework.

5.3 Those multiple benefits of this new tree planting, as part of the site's green infrastructure, include contribution to open space, enhancement of sustainable drainage systems, and enhancement of biodiversity. In addition, as those new trees develop, so they will further contribute to local climatic regulation and, where they stand within the sun path of proposed buildings or surfaces within the re-development, they will minimise solar gain during summer months, and provide an accessible choice of shade and shelter.

6.0 Protection of trees during construction

6.1 To ensure the retained trees are safeguarded a tree protection plan has been prepared to show the location of protective measures. These measures need to be implemented in advance of construction and maintained until such time as soft landscape proposals require their removal.

6.2 In some instances specialist construction techniques or approaches are indicated on the protection plan. These shall be implemented in accordance with site progress.

6.3 In order to ensure the protective and specialist measures are understood, implemented and maintained a scheme of monitoring and supervision shall be put in place.

6.4 A scheme of supervision/monitoring shall typically include:

- a pre-commencement meeting;
- a site visit by an arboriculturist at no more than one month intervals;
- a report to be prepared after each site visit and presented to the Council within 7 days of the visit.

7.0 Summary of impact assessment

7.1 The proposed development results in the loss of very few trees, all of which are low quality and value.

7.2 The proposed hard surfaces, other than one corner of the turning head, are remote from root protection areas and result in no material harm to the trees.

7.3 Services and utility installation can be sited remote from trees but if they do need to be located within root protection areas specialist measures can be deployed for their installation to minimise harm to retained trees.

7.4 New and replacement tree planting is provided as part of these development proposals. This new cohort of trees can provide a diverse portfolio of tree cover to ensure sustainability of green infrastructure in the future.

7.5 The application proposals recognise the important contribution trees make to the character and quality of built environments, and the role they play to help mitigate and adapt to climate change. The proposals seek to retain existing trees and integrate new trees in accordance with the requirement of local and national planning policy.

Appendix 1

Introduction to key elements of tree information

Sustainable development requires the coordination between disciplines throughout the project, accordingly the package of arboricultural information supports the design process and follows through to construction ensuring effective tree protection.

Keen Consultants break the process down to coordinate with the key elements within both the RIBA Plan of Work (2020) and '*British Standard 5837:2012 Trees in relation to design, demolition and construction – Recommendations*', this is set out in the table and explained below.

Figure 1 - Keen Consultants co-ordinated approach with cross references to key guidance.

Keen Consultants Tree Information	RIBA Stage	BS5837
Tree Survey	Stage 1: Preparation and Briefing	Feasibility
Impact Assessment	Stage 3: Spatial Coordination	Proposals
Method Statement	Stage 4: Technical design	Technical Design
Site Monitoring	Stage 5: Manufacturing and Construction	Demolition and construction

This cross referenced approach ensures trees are a material consideration and those to be retained will be safeguarded.

Tree Survey and Tree Constraints Plan

To inform the design and layout of the proposed development a tree survey has been undertaken to identify the size and quality of trees both within the site and immediately offsite. We have then used this information to prepare the Tree Constraints Plan drawing that shows the location of each tree, its size and the area around each tree that needs to be considered during the design process. Once prepared this information has been provided to the design team so that they know what constraints the trees pose.

Impact Assessment and Tree Protection Plan

During the design process the design team has consulted with the arboriculturist to ascertain if constraints may be breached, consider options emerging from the design and what spaces for new trees are needed.

Once the design was finalised an impact assessment has been prepared to accompany the planning application. The impact assessment demonstrates the proposals meet national and local planning policy and guidance. It demonstrates the benefits of the retained trees and incorporates new tree planting.

Another essential element of any application is the Tree Protection Plan.

Method Statement

This statement sets out in words how each element of work is undertaken in relation to the trees. It dictates when activities occur and the method that will be used to achieve them. It will also set out a scheme of monitoring and supervision.

Site Monitoring

Following the receipt of planning consent, it is a requirement that the installation of the protective barriers and ground protection are supervised, together with operations such as excavations or surfacing close to trees.

This varies according to the intensity of development near trees, the process is set out to ensure what is planned for in the Tree Protection Plan and method statement is delivered.

Appendix 2

Tree Survey Explanatory Notes

The survey of trees has been carried out in accordance with the criteria set out in Chapter 4 of *British Standard 5837:2012 Trees in relation to design, demolition and construction-Recommendations* (BS5837). The survey has been undertaken by the qualified and experienced arboriculturist detailed at Table 1 of this report and they recorded information relating to all those trees within the site and those immediately adjacent to the site which may be of influence to layout design.

The results are recorded in the Schedule of Trees at Appendix 3.

Schedule of trees

Appendix 3 presents details of the individual trees, groups and hedgerows including heights, diameters at breast height, crown spread (given as a radial measurement of cardinal points from the stem), age class, comments as to the overall condition at the time of inspection, BS5837 category of quality and suitability for retention, and the root protection area information.

General observations particularly of structural and physiological condition for example the presence of any decay and physical defect and preliminary management recommendations have also been recorded where appropriate.

Details of the individual trees, groups and hedgerows

All trees were assessed for their quality and benefits within the context of proposed development in a transparent, understandable and systematic way.

Individuals

The default position is to record each tree as an individual for its unique contribution to the landscape

Groups and woodlands

Trees have been assessed as groups where it has been determined appropriate by the surveyor. The term group has been applied where trees form cohesive arboricultural features either aerodynamically, visually or culturally.

Hedges and shrub masses

We consider a hedgerow to typically comprise a line of trees or shrubs that currently is subject to, or has undergone, a pruning regime to contain its dimensions.

For the tree survey hedgerows and substantial internal or boundary hedges (including evergreen screens) have either been recorded in the Tree Schedule, including lateral spread, height and stem diameter(s), or indicated on the Tree Constraints Plan.

A tree survey in accordance with BS5837 does not assess hedgerows against *The Hedgerow Regulations 1997* or specifically from an ecological perspective, as such would be outside the scope of the British Standard assessment.

Shrub masses are collectives of woody plants, rather than trees, and are recorded where they are a significant feature of the site. They have either been recorded in the Tree Schedule or indicated on the Tree Constraints Plan.

Individual trees within groups, woodlands and hedges

An assessment of individual trees within the groups has been made where there has been a clear need to differentiate between them for example, in order to highlight significant variation between attributes including physiological or structural condition or where a potential conflict may arise.

BS5837 Categorisation

Trees have been divided into one of four categories based on Table 1 of BS5837, 'Cascade chart for tree quality assessment'. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below).

Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition. They are, for this reason not considered in the planning process on arboricultural grounds. Categories A, B & C are applied to trees that should be of material considerations in the development process. Each category also having one of three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural or conservation values accordingly.

Please note that the estimated remaining life expectancy figures are taken for BS5837 and relate to their categorisation. The life expectancy figures are therefore arbitrary and may vary in reality.

Category (U)

Trees that have a serious irremediable structural defect such that their early loss is expected due to collapse and includes trees that will become unviable after removal of other category U trees.

Trees that are dead or are showing signs of significant, immediate or irreversible overall decline.

Trees that are infected with pathogens of significance to the health and/ or safety of other nearby trees or are very low quality trees suppressing adjacent trees of better quality.

Certain category U trees can have existing or potential conservation value which may make it desirable to preserve.

Category (A)

Shown green on Tree Constraints Plan: Trees that are considered for retention and are of high quality with an estimated remaining life expectancy of at least 40 years and with potential to make a lasting contribution. Such trees may comprise:

Sub categories

1) trees that are particularly good examples of their species, especially if rare or unusual, or are essential components of groups such as formal or semi-formal arboricultural features for example the dominant and/or principal trees within an avenue.

2) trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.

3) trees, groups or woodlands of significant conservation, historical, commemorative or other value for example veteran or wood pasture.

Category (B)

Shown blue on Tree Constraints Plan: Trees that are considered for retention and are of moderate quality with an estimated remaining life expectancy of at least 20 years and with potential to make a significant contribution. Such trees may comprise:

Sub categories

1) trees that might be included in category A but are downgraded because of impaired condition for example the presence of significant though remediable defects, including unsympathetic past management and storm damage.
2) trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.
3) trees with material conservation or other cultural value.

Category (C)

Shown grey on Tree Constraints Plan: Trees that are considered for retention and are of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Such trees may comprise:

Sub categories

1) unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
2) trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value or trees offering low or only temporary/transient screening benefits.
3) trees with no material conservation or other cultural value.

Devising BS5837 root protection areas

Default situation

The root protection area is a function of the stem diameter, it is multiplied by 12 to give a radius. For multi-stemmed trees the stems are combined to provide an effective diameter figure which is then multiplied.

Initially the root protection area should be plotted as a circle, and in many situation it remains a circle.

Influenced situation

Adjustments to the root protection area are made where pre-existing site conditions that would influence root distribution are present. Typically this will be buildings and retaining walls, lighter structures such as hard surfacing, sheds and garages generally do not have the same influence.

Ponds, rivers and watercourses will also influence root distribution as waterlogged soils are not conducive to root growth. Rainwater attenuation and ditches are likely to have a lesser impact if they are dry for significant periods.

Veteran trees

Natural England have introduced Standing Guidance that requires the allocation of buffer zones to veteran (including ancient) trees. They have prescribed that a buffer zone of 15 times the stem diameter of the tree is allocated. This will result in a buffer zone of larger size (Natural England do not specify what shape it shall be) than the root protection area. Where veteran trees are identified during the tree survey they are allocated a Natural England buffer zone on the Tree Constraints Plan.

The Guidance says no development can take place within the buffer zone It is silent on what can and cannot be done when the land within the buffer zone is previously developed. The spirit of the guidance is to avoid harm to or improve the growing conditions of veteran trees.

With this added layer of protection it is important to establish if a tree is veteran or not. The Guidance was not intended to be applied to all mature trees but to the sub-set of trees that are of great age. This is analogous with the NPPF requirement to safeguard trees that have attained an age where they are worthy of veteran or ancient status.

It is therefore important to establish a basis for defining trees as veteran as opposed to those trees that may have veteran characteristics or those trees that are mature.

Stem size is a useful guide and, in combination with size, so are characteristics of the tree. If we consider the guidance on stem size being a suitable guide to classifying trees as veteran we see:

a) The most up to date (2013) guidance is that in [1]*Ancient and other veteran trees: further guidance on management* edited by David Lonsdale and published by The Tree Council in conjunction with The Ancient Tree Forum. Lonsdale considers that many trees may have veteran characteristics at any age however proposes, at a species level, size thresholds when a tree may be considered a veteran. A chart (see Figure 1 below) lists, species by species, the size criteria for trees reaching veteran status and then moving on to the later, ancient stage of life. Of those species listed in the chart we only need consider oak. We see that until trees attain a stem girth of around 3.6m (equivalent stem diameter of 1.15m) then an oak is only considered to be 'Locally notable'

b) A somewhat older (1999) publication, [2]*Veteran Trees: A guide to good management* edited by Helen Read and published by English Nature et al, is very similar in its definition by setting out three distinct bands for oak trees:

   i) those with a diameter of more than 1.0m are potentially interesting

   ii) those with a diameter of more than 1.5m are valuable in terms of conservation

   iii) those over 2.0m in diameter are truly ancient

c) English Nature's own [3]*Development of a veteran tree site assessment protocol (Report Number 628)* of 2005 sought to give more structure to grading sites where veteran trees were present. It considered that trees over 1.0m diameter could be classed as veteran.

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[1] *Ancient and other veteran trees: further guidance on management* edited by David Lonsdale and published by The Tree Council in conjunction with The Ancient Tree Forum

[2] *Veteran Trees: A guide to good management* edited by Helen Read and published by English Nature *et al*

[3] *Development of a veteran tree site assessment protocol* (Report Number 628) of 2005

In summary, a tree may enter its veteran stage at 1.0m diameter but a more reliable size threshold, as held out by the latest guidance on the matter, is 1.5m diameter.

The other factor, tree characteristics, is also worth considering as veteran tree characteristics can be found on even young trees. Of course, if we count every tree with veteran tree characteristics as veteran we do a disservice to those truly veteran trees that warrant protection.

Read (1999), as set out above, considers veteran tree characteristics as:

- large girth for species
- major trunk cavities or progressive hollowing
- naturally forming water pools
- decay hollows
- physical damage to trunk
- bark loss
- large quantities of deadwood within the crown
- sap runs
- crevices in the bark, under branches or on the root plate sheltered from direct rainfall
- fungal fruiting bodies
- high number of interdependent wildlife species
- epiphytic plants
- an 'old' look
- high aesthetic interest

Lonsdale (2013) adds to this list:

- progressive narrowing of successive annual increments in the stem
- changes in crown architecture
- progressive or episodic reduction in post-mature crown size, often known as retrenchment

Lonsdale also states that "In order to qualify as a veteran, the tree should show signs of crown retrenchment and signs of decay in the trunk, branches or roots, such as exposed deadwood or fungal fruit bodies".

The English Nature Report Number 628 refers to Read (1999) for a list of veteran features but does add that in addition a tree may also:

- have a pollard form or show indications of past management
- have a cultural/historic value
- be in a prominent position in the landscape

These three criteria, when examined, are not truly indicative of a veteran tree on their own as these criteria could be applied to street trees in peri-urban locations that date from the mid-20th century - many of those are of pollard form, have cultural and historic value and a prominent position in the landscape.

In summary, it is important to consider the size of the tree and its characteristics. Just because a tree is mature does not mean it is veteran neither does the presence of veteran characteristics alone.

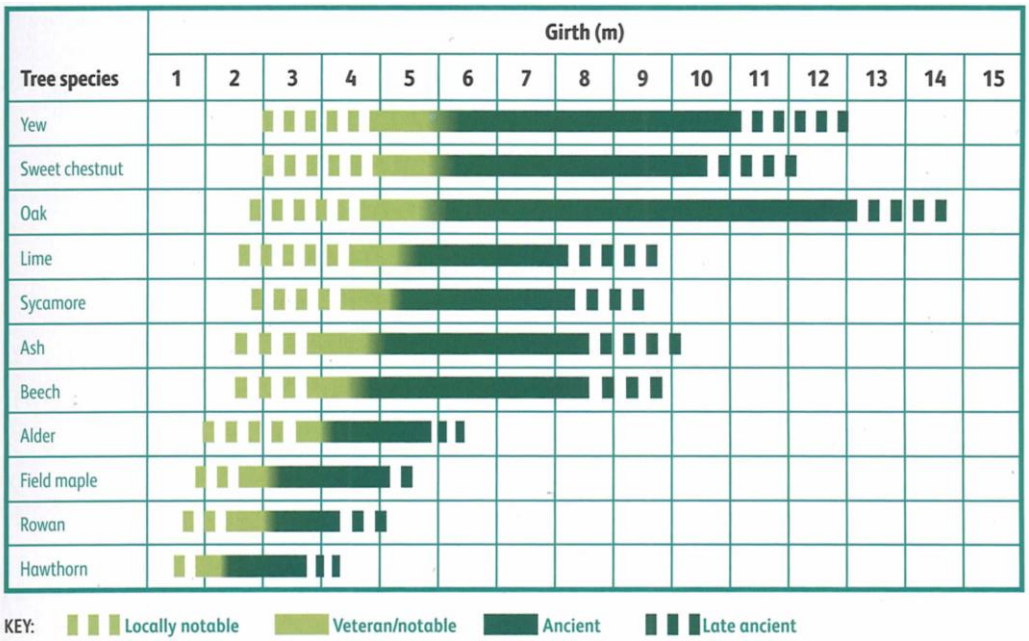

Figure 1- Chart of girth in relation to age and developmental classification of trees

Appendix 3

Schedule of Trees

for land at

Oak and Apple Tree Cottage,
Winchester Road,
Boorley Green,
Botley,
SO32 2DH

Key to Tree Schedule

Column Heading	Explanation
Tree No.	Unique number corresponding with number on plan
Species	English names
Ht (m)	Height in metres
Branch Spread	Crown radius in metres to cardinal points of the compass
Stem diameters (cm)	All measurements conform to Annex C of BS 5837:2012 Single stem - Stem diameter in centimetres measured at 1.5m above ground level. Multi-stemmed tree with 2 to 5 stems – Diameter of each stem Multi-stemmed tree with more than 5 stems – Average stem diameter and number of stems
Height of crown clearance	Height in metres between the ground and underside of canopy
Height of first major branch and direction of growth	Height from ground level to base of first major branch and the approximate direction of growth
Abbreviations as suffix to a dimension	*Suffix 'e' denotes an estimated dimension.* *Suffix 'av' denotes an average dimension*
Age class	Age Class definitions: Y = Young S = Semi-mature E = Early mature M = Mature O = Over mature
Category grading (see Appendix A2 for detailed explanation) and Estimated remaining contribution (yrs)	Summary of BS 5837: 2012 categorisation: 1. Trees that do not warrant consideration for retention: 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. 2. Trees to be considered for retention: A1, 2 or 3 = trees of high quality and value (substantial contribution >40 yrs) B1, 2 or 3 = trees of moderate quality and value (significant Contribution >20 yrs) C1, 2 or 3 = trees of low quality and value (but adequate, ie >10 yrs or young trees – until new planting can be established)
Estimated remaining contribution	Useful estimated remaining contribution of the tree or tree group
Condition	Brief description including physiological and structural defects
Preliminary management recommendations	Describes current arboricultural requirement for the tree in its current context and should be undertaken as soon as reasonably practicable.
Root protection radius	Radius of minimum root protection area in metres calculated from section 4.6 and Annex D of BS5837:2012
Root protection area	Total area of minimum root protection area extrapolated from root protection radius

Survey of trees on land at Oak and Apple Tree Cottage, Winchester Road, Boorley Green, Botley SO32 2DH

Tree No.	Species	Ht (m)	Branch Spread (m)				Stem diameters (cm)								Height of crown clearance (m)	Height of first branch (m) and direction (compass point)	Age class	Category grading	Estimated remaining contribution (yrs)	Condition Physiological / Structural	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
			N	E	S	W	Single Stem	2-5 stems					More than 5 stems										
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
1	Ash	11	7	6	7	7	39								2	2W	S	C1	>10	Established tree adjoining cottage. Showing early signs of Ash Dieback. Unsuited to long term retention.		4.68	69
2	Pair of cherry	4av	4av				30av								0	-	S	C2	>10	Pair of small fruit trees in adjoining garden.		3.60	41
3	Group of fruit trees	4av	3av				15av								0	-	S	C2	>10	Group of small fruit trees within paddock. Species include apple, cherry and pear. No tree of any particular merit.	Remove section as shown.	1.80	10
4	Ash	15	6	6	6	6	50e								2	2N	E	C2	>10	Forms part of hedgerow. Showing early signs of Ash Dieback.		6.00	113
5	Group of holly	9av	4av				15av								0	-	E	B2	>20	Forming part of hedgerow along southern boundary.		1.80	10
6	Leyland cypress	10	1	2	2	2	30e								2	2S	S	C2	>10	Established conifer growing in adjoining garden.		3.60	41
7	Row of hawthorn and cherry Laurel	9av	4av				30av								0	-	E	B2	>20	Forming part of hedgerow along southern boundary of site.		3.60	41
8	Ash	2	0.5	2	1	0	39								2	2E	E	U	<10	Pollarded stump. Has been pruned to provide clearance for overhead wires.		4.68	69
9	Ash	14	6	1	4	8	70e								2	2W	E	U	<10	Harshly pruned to provide clearance for overhead wires. Showing early signs of Ash Dieback.		8.40	222
10	Mixed broadleaf hedgerow	6av	3av				15av								0	-	E	B2	>20	Established but outgrown hedgerow along western boundary of site. Sparse in places. Predominantly hawthorn with some blackthorn and elder.	Remove section as shown.	1.80	10
11	Group of blackthorn	7av	3av				12av								2	2E	S	C2	>10	Group of small trees within paddock.	Remove.	1.44	7
12	English oak	12	6	6	5	5	42								2	2E	S	U	<10	Established tree growing within hedgerow. Partially smothered in ivy. Tigh union between stems at circa 2m above ground level highly susceptible to failure in future years. Not suited to long term retention.		5.04	80

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Survey of trees on land at Oak and Apple Tree Cottage, Winchester Road, Boorley Green, Botley SO32 2DH

Tree No.	Species	Ht (m)	Branch Spread (m)				Stem diameters (cm)									Height of crown clearance (m)	Height of first branch (m) and direction (compass point)	Age class	Category grading	Estimated remaining contribution (yrs)	Condition Physiological / Structural	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
			N	E	S	W	Single Stem	2-5 stems					More than 5 stems											
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems										
13	Mixed broadleaf hedgerow	6av	3av				10av								0	-	E	B2	>20	Established hedgerow along ditch line at northern boundary of site. Predominantly hazel with some hawthorn and blackthorn.	Remove section as shown.	1.20	5
14	English oak	12	7	3	3	4	32								2	2N	S	B2	>20	Contributes to hedgerow.		3.84	46
15	Row of English oaks	19av	8av				65av								2	2S	E	A2	>40	Prominent line of trees growing within hedgerow. All stems closely spaced and forming contiguous crown. Most stems partially smothered in ivy. Some deadwood within crowns.		7.80	191
16	English oak	9	0	2	6	2	29								2	2S	S	C2	>10	Contributes to row but crown biased to south due to competition with adjoining larger trees.		3.48	38
17	English oak	2.5	2	3	2	3							12	8	0	-	S	C2	>10	Contributes to hedgerow but has been pollarded to provide clearance from overhead wires.		4.07	52
18	English oak	19	9	8	8	3	55e								2	2S	E	A2	>40	Part of a line of trees along the northern boundary. Lower stem partially smothered in ivy. Crown has been pruned to provide clearance for overhead wires.		6.60	137
19	English oak	19	11	11	9	5	75e								2	2S	E	A2	>40	Forms part of a line of trees along the hedgerow. Lower stem and crown partially smothered in ivy.		9.00	255
20	English oak	17	7	6	7	0	35e								2	2S	E	C2	>10	Contributes to row of trees along the boundary. Intertwined with adjoining larger tree. Main stem partially smothered in ivy.		4.20	55
21	English oak	16	7	9	9	7	55e								5	5W	E	B2	>20	Established tree growing in hedgerow alongside Winchester Road. Lower stem smothered in ivy. Some deadwood within crown.	Remove deadwood in excess of 25mm diameter.	6.60	137

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			N	E	S	W	Single Stem	2-5 stems					More than 5 stems										
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
22	Mixed broadleaf hedgerow	9av	3av				20av								2	2W	E	B2	>20	Established but outgrown hedgerow along boundary of Winchester Road. Predominantly hawthorn with some holly and blackthorn. Most stems covered in ivy.	Cut back to maintain visibility access.	2.40	18
23	English oak	17	7	8	8	7	65e								4	4N	E	B2	>20	Established tree growing in hedgerow alongside Winchester Road. Main stem smothered in ivy.		7.80	191
24	Pair of elm	14av	4av				30av								3	3N	S	U	<10	Pair of dead trees growing between fence and Winchester Road. Both stems covered in ivy.		3.60	41
25	English oak	13	7	7	4	8	45e								3	3W	S	B2	>20	Established tree growing alongside hedgerow. Main stem and crown smothered in ivy.		5.40	92
26	Mixed broadleaf hedgerow	3av	2av				10av								0	-	S	C2	>10	Sparse section of hedgerow alongside Winchester Road. Includes hazel, cherry and hawthorn saplings. Sparse.	Remove section as shown.	1.20	5
27	Ash	10	3	2	1	2	14								2	2W	S	C2	>10	Contributes to hedgerow. Slender form. Showing early signs of Ash Dieback.		1.68	9
28	English oak	13	5	6	6	6		41	14						2	2S	S	B2	>20	Contributes to hedge line alongside Winchester Road.		5.20	85
29	Mixed broadleaf hedgerow	8av	3av				15av								0	-	E	B2	>20	Established but outgrown hedgerow alongside Winchester Road. Predominantly hazel with some hawthorn and holly.	Cut back to maintain visibility access.	1.80	10
30	Ash	12	5	5	6	7	29								3	3NW	S	C2	>10	Contributes to hedgerow but showing early signs of Ash Dieback.		3.48	38
31	English oak	14	7	8	7	8	59								0	4S	E	B2	>20	Established tree growing to east of Winchester Road. Stands between carriageway and footway. Levels appear to have been raised around base. Some deadwood within crown that overhangs the carriageway and footway.	Remove deadwood in excess of 25mm diameter.	7.08	157

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Tree No.	Species	Ht (m)	Branch Spread (m)				Stem diameters (cm)								Height of crown clearance (m)	Height of first branch (m) and direction (compass point)	Age class	Category grading	Estimated remaining contribution (yrs)	Condition Physiological / Structural	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
32	English oak	16	9	5	7	9	75e								2	2W	E	A2	>40	Stands to north of footpath outside of northern boundary of site. Broad spreading form. Has been cut back on northeastern side.		9.00	255

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