



# INITIAL ARBORICULTURAL ASSESSMENT

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## PRE-DEVELOPMENT

**Aug 2020**

**SITE : Land at Howbury Hall Estate, Renhold, Bedford**

### **RGS – ARBORICULTURAL CONSULTANTS**

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A pre-development advisory document, broadly in accord with British Standard 5837 : 2012 'Trees in relation to Design, demolition & construction - Recommendations', designed to inform the conceptual design by highlighting the above and below ground arboricultural constraints in the context of a proposed development.

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## 1.0 Terms of Reference

- 1.1 We are instructed by Phillips Planning Services Ltd to undertake an initial pre-development arboricultural impact assessment on land at Howbury Hall Estate, Renhold, which is to be in line with B.S. 5837 : 2012 'Trees in Relation to Design, Demolition & Construction - Recommendations'.
- 1.2 All trees on or immediately adjacent the site have been inspected from ground level only. Should further, more 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 a number of external and internal factors. The conclusions and recommendations contained in this report relate to the trees at the time of inspection.
- 1.3 The site survey and tree assessment was undertaken by [REDACTED] the LANTRA Certificate in Professional Tree Inspection and is a member of the Consulting Arborist Society, the Arboricultural Association and The Royal Forestry Society.

## 2.0 Survey Methodology

- 2.1 The woodland trees have been broadly 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/Protection Plan (attached as appendix 3). For full details of the relevant assessment criteria and retention categories see Table 1 of B.S. 5837 (attached as appendix 4).

## 3.0 Site Overview / Design Brief

- 3.1 The survey area consists of a woodland to the north side of St. Neots Road, Bedford, where it is intended to construct a roundabout and access road, that will be required to service a potential development to the north. At present there is no statutory protection for the woodland.

#### 4.0 Summary of Findings & Conclusions

- 4.1 The woodland is divided into two parts: the main area to the immediate north of St. Neots Road, and a secondary shelterbelt of somewhat younger trees, which extends north, along the western edge of the parkland – See Fig.1. The main woodland comprises Oak, Elm, Beech, Sycamore, Ash and Horse Chestnut, with an understorey of Field Maple and Hawthorn; the dominant species is Elm, whilst Oak, Beech and Field Maple account for much of the remainder, with Sycamore, Chestnut, Ash and Hawthorn less prolific. There is no ground cover vegetation, largely due to free range pigs having access to the woodland. Age of trees ranges from young to fully mature. The shelterbelt consists of mature Sycamore, Oak and Pine in roughly equal proportions, and has a dense understorey of Hawthorn, Field Maple and Elder.



*Fig.1 Aerial view (study area within red line) ©Google*

- 4.2 All U Category (Poor Quality) trees should generally be removed for reasons of sound arboricultural practice or health & safety, irrespective of any development proposals, unless they offer particular conservation value to the site, in which case this will be highlighted in the survey schedule along with appropriate recommendations.

- 4.3 As regards the C category trees, it may not always be possible or even desirable to retain low quality trees within the context of a proposed development, unless in such a location that they do not represent a significant constraint on the design brief. Young trees, and those with a stem diameter of less than 150mm, will normally be placed in the C category, unless it is considered that they are of especially good form or are of a species that is particularly rare, in which case they may be upgraded. In certain cases, it may be appropriate to consider re-location of young C category trees within the site.
- 4.4 All A & B Category trees (high & moderate quality) will under normal circumstances be retained on development sites, and should ideally influence and inform the conceptual design, site layout, and in some cases the specific construction methods to be used – The root protection area and/or crown spread of these trees will generally form a construction exclusion zone, although under certain circumstances it may be possible to build or operate within these areas providing that appropriate measures and specifications have been formally agreed between the local planning authority, the consulting arboriculturist and the developer/client.

## 5.0 Preliminary Arboricultural Impact Assessment

- 5.1 The approximate proposed location of the roundabout and access road is shown in the image at Fig.2; taking into account the required visibility splays, this will require the removal of a large number of trees, albeit many of low or inferior quality – See Appendix 3.

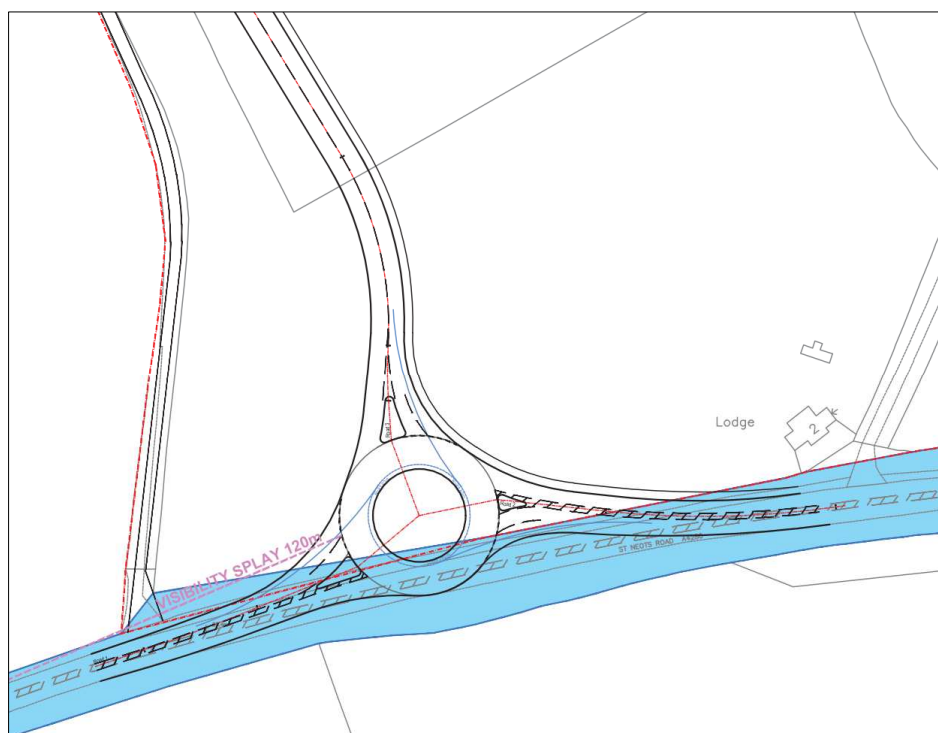


Fig.2 Extract from proposed transport plan

- 5.2 The overall impact of the tree removal upon visual amenity will be moderate. Primary mitigation will comprise compensatory planting of native species trees in locations to be confirmed.

## 6.0 Recommendations

- 6.1 All tree removal 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'. This work should take place before any other enabling works on the site.
- 6.2 All retained trees are to be afforded temporary protection in the form of robust and durable barriers/fencing for the duration of the construction phase of the development, the provisional locations for which are included on the tree constraints/protection plan (appendix 3). Within the protected areas of woodland (Construction Exclusion Zones), there is to be allowed no access by contractors for any purpose, including storage of materials, equipment or fuel, and the fencing is to be maintained in good order throughout.
- 6.3 A compensatory planting and biodiversity enhancement scheme shall be formulated at a later stage in the design process.

## 7.0 Statutory Obligations

- Works to trees which are covered by Tree Preservation Orders [TPOs] or are within a Conservation Area [CA] require permission or consent from the Local Planning Authority [LPA]. It is necessary to obtain formal approval only where pre-emptive tree works are to be actioned. 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, the 'Countryside and Rights of Way Act 2000' and the 'Conservation of Habitats & Species Regulations 2017'.  
Therefore, avoid carrying out significant tree works during the bird nesting season [mid-March to mid-August] and ensure that trees are professionally surveyed for signs of bat roosts and/or bat activity before starting any significant tree work, such as felling or heavy crown reduction. Further advice on how to proceed should bat occupation be suspected can be obtained from your local office of Natural England or any qualified ecologist.

## APPENDIX 1 :

### KEY TO SURVEY CRITERIA & HEADINGS:

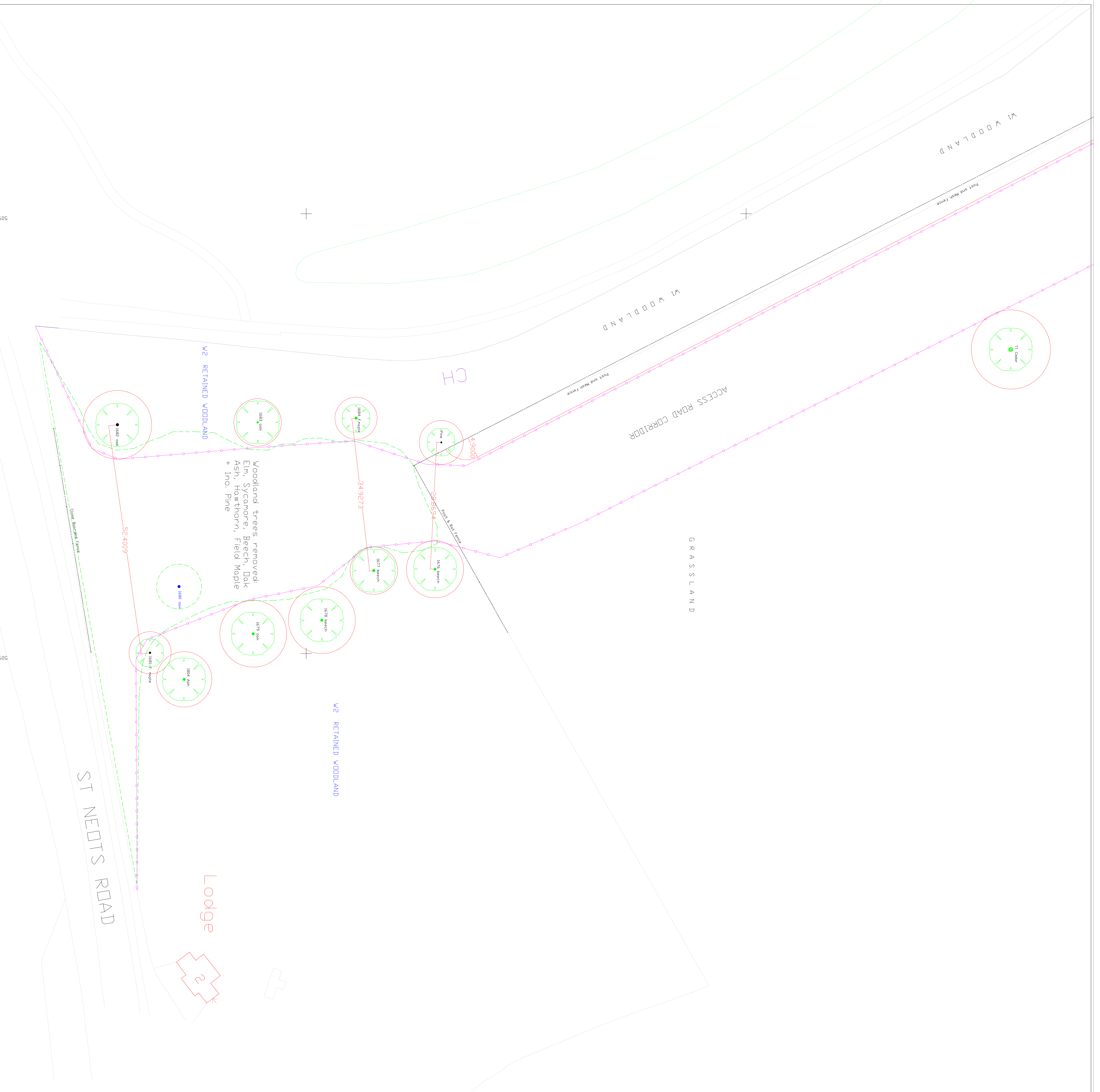
Tree No.	Notional ID given to each tree or group of trees (unless tagged)
Species	Common name
Age Class	Young, semi-mature, early mature, mature or over-mature
Height	Estimated in metres
Stem dia.	Trunk diameter (mm) measured at 1.5m above ground level, or other height as specified
Vigour	Objective assessment of a tree's vigour e.g. shoot extension growth (normal, reduced or low)
Amenity	Subjective assessment of a tree's contribution to the amenity value of the immediate area: High to 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 for A & B categories in brackets)  C = Those of Low Quality & Value  U = Unsuitable for retention
RPA	Root Protection Area, measured in metres (radius) from centre of tree, or may be expressed in m <sup>2</sup>

**APPENDIX 2 : SURVEY SCHEDULE** (Page 1 of 2)

Tree No.	Species (common name)	Age class	Height (m)	Stem dia. (mm)	Vigour	Amenity Value	Condition	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
W1	Sycamore, Oak, Pine	mature	avg. 20	avg. 500	normal	mod/high	good to fair	linear shelterbelt with understorey of Hawthorn, Field Maple, Elder	No action required	B (2)	6.0
W2	Oak, Beech, Elm, Sycamore, Ash, Horse Chestnut, Field Maple, Hawthorn	semi-mature to mature	< 25	150 - 650	normal to low	mod/high	good/fair to poor	dominant species Elm, lack of thinning has resulted in many trees becoming drawn & slender, browsing by pigs has removed all ground vegetation	Remove as required to facilitate road infrastructure – See Plan	B (2)	1.8 – 7.8
T1	Blue Atlas Cedar	mature	20	750	normal	moderate	good	open grown parkland tree	No action required	A (1)	9.0
1676	Beech	mature	25	540	normal	moderate	good	within woodland W2	Retain & protect	B (2)	6.5
1677	Beech	mature	18	450	normal	moderate	good	within woodland W2	Retain & protect	B (2)	5.4
1678	Beech	mature	20	630	normal	moderate	good	within woodland W2	Retain & protect	A (2)	7.6



Tree No.	Species (common name)	Age class	Height (m)	Stem dia. (mm)	Vigour	Amenity Value	Condition	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
1679	English Oak	mature	20	630	normal	moderate	good/fair	within woodland W2	Retain & protect	B (2/3)	7.6
1680	English Oak	mature	20	600	normal	moderate	good/fair	within woodland W2	Remove to facilitate construction	B (2/3)	(7.2)
1681	Field Maple	mature	10	400	normal	low	good/fair	within woodland W2	Retain & protect	B (2)	4.8
1682	English Oak	mature	20	650	normal	moderate	good/fair	within woodland W2	Retain & protect	B (2/3)	7.8
1683	English Oak	mature	15	450	normal	mod/low	good/fair	within woodland W2	Retain & protect	B (2/3)	5.4
1684	Field Maple	mature	10	400	normal	low	good/fair	within woodland W2	Retain & protect	B (2)	4.8
1804	Ash	mature	18	520	normal	mod/low	good/fair	within woodland W2	Retain & protect	B (2)	6.3



- TREE CONSTRAINTS/PROTECTION PLAN**  
 Always re-produce this drawing in colour
- Root Protection Area for retained trees
  - Trees to be removed
  - Protective location of temporary tree protection fencing

PRODUCT  
 Land off St. Neots Road, Bedford

TITLE  
 Initial Arboricultural Assessment

CLIENT  
 Howbury Hall Estate

SCALE (@ A0)  
 1 : 200

DATE  
 Aug2020



Table 1 : Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan																									
<b>Trees unsuitable for retention (see Note)</b>																													
<b>Category U</b> 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	<ul style="list-style-type: none"> <li>• 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)</li> <li>• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li> <li>• Trees infected 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</li> </ul> <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>			Dark Red																									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:33%;"></th> <th style="width:33%; text-align: center;">1 Mainly arboricultural qualities</th> <th style="width:33%; text-align: center;">2 Mainly landscape qualities</th> <th style="width:33%; text-align: center;">3 Mainly cultural values, including conservation</th> <th style="width:33%;"></th> </tr> </thead> <tbody> <tr> <td colspan="5"><b>Trees to be considered for retention</b></td> </tr> <tr> <td> <b>Category A</b>            Trees of <b>high</b> quality with an estimated remaining life expectancy of at least 40 years         </td> <td>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)</td> <td>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</td> <td>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</td> <td>Light green</td> </tr> <tr> <td> <b>Category B</b>            Trees of <b>moderate</b> quality with an estimated remaining life expectancy of at least 20 years         </td> <td>Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation</td> <td>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</td> <td>Trees with material conservation or other cultural value</td> <td>Mid blue</td> </tr> <tr> <td> <b>Category C</b>            Trees of <b>low</b> quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter of 150mm         </td> <td>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</td> <td>Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits</td> <td>Trees with no material conservation or other cultural value</td> <td>Grey</td> </tr> </tbody> </table>						1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation		<b>Trees to be considered for retention</b>					<b>Category A</b> Trees of <b>high</b> quality with an estimated remaining life expectancy of at least 40 years	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)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Light green	<b>Category B</b> Trees of <b>moderate</b> quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	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	Trees with material conservation or other cultural value	Mid blue	<b>Category C</b> Trees of <b>low</b> quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter of 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	Grey
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