



Location:
**Hutton Rudby
Village Green & Village Hall**

Report Type:
Arboricultural Condition Survey

Ref:
ARB/CP/2268

Date:
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1 Introduction

- 1.1 Acting upon the request of Ann Pyle a survey of trees in Hutton Rudby was undertaken. The survey was completed on the 15th October 2019 by Charles Prowse of Elliott Consultancy Ltd and this report details the findings.
- 1.2 Scope of the report:
- This report provides arboricultural information and advice in relation to the current physiological and structural condition of the trees inspected.
 - This report relates only to the conditions prevailing on the date that the trees were surveyed. At the time of inspection the sky was overcast with sunny intervals giving reasonable light levels.
 - Plans are included within Appendix 1 which shows the tree locations.
- 1.3 A glossary is included within the report, covering terms that may be specific to arboriculture.
- 1.4 It is recommended that only reputable, qualified, and fully insured contractors undertake any subsequent arboricultural works.
- 1.5 Trees may be protected by Tree Preservation Orders, or Conservation Area status. Advice should be sought from the relevant planning department in this regard, prior to undertaking any recommended works.
- 1.6 It is possible that trees that require work following this survey may also be habitat for species of bird and bat. It is therefore recommended that appropriate advice should be sought with regard these matters.

2 Site Information

- 2.1 The trees inspected are located on grass verges adjacent to North Side, South Side and North End, and within the grounds of the village hall. Figure 1 shows the location of the sites.

Figure 1: Survey Area (blue highlights)



- 2.2 The grass verges within the village are close-mown grass with vehicle passage and parking to all sides. Street furniture such as benches and street lamps in close proximity to the trees are common place.
- 2.3 The trees at the village hall are located to the rear of the building within the children's play area.

3 Tree Survey Data - Hutton Rudby Village Green

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
1	Horse Chestnut	Early-Mature	44	9.5	Damage to surface roots. Branch failure stub(s) within lower crown. Bacterial wetwood at 1.3m from old pruning wound. Numerous bark cankers. Crown encroaching highway	Prune back to clear highway	Low
2	Copper Beech	Semi-Mature	53	11	Damage to surface roots. Included bark unions. Crown encroaching highway	Prune back to clear highway	Low
3	Lime spp	Mature	97	24	Tifurcated at 3.5m. Branch failure stub(s). Minor crown dieback. Moderate deadwood. Branch failure tear wound at 4.5m.	Remove moderate size deadwood from within lower crown.	Low
4	Horse Chestnut	Mature	69	16	Minor crown dieback. Pruning wound(s) within crown.	No work required.	
5	Sweet Chestnut	Semi-Mature	41	8	Good health & form. Branch failure stub within lower crown. Crown encroaching highway	Crown lift to 4m over highway	Low

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
6	Horse Chestnut	Mature	90	15	Damage to surface roots. Pruning wound(s) within crown. Previously reduced crown.	No work required.	
7	Lime spp	Mature	88	25	Co-dominant stems at 2.5m. Minor deadwood. Hanging broken branch. Minor deadwood.	No work required.	
8	Horse Chestnut	Mature	61	16	Girdling roots. Damage to surface roots.	No work required.	
9	Sycamore	Mature	70	20-25	Damage to surface roots. Pruning wounds within crown.	No work required.	
10	Lime spp	Mature	78	21	Epicormic growth at base. Minor deadwood. .	No work required.	
11	Birch spp	Mature	50	17	Reasonable health & form. Branch failure stub(s). Minor deadwood.	No work required.	

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
12	Lime spp	Mature	72	20	Damage to surface roots. Co-dominant stems at 5.5m with narrow fork. Pruning wound(s) within crown. Lower limbs previously reduced now with varying amounts of regrowth	No work required	
13	Beech	Semi-Mature	50	17	Damage to surface roots.	No work required.	
14	Horse Chestnut	Mature	91	19	Damage to surface roots. Pruning wound(s) on stem and in crown. Numerous limbs previously reduced.	No work required.	
15	Sycamore variety	Mature	97	21	Branch failure stub(s). Minor deadwood.	No work required.	
16	Lime spp	Mature	71	20	Epicormic growth at base and upon stem. Branch failure stub(s). Pruning stub(s) within crown. Minor deadwood.	No work required.	
17	Sycamore	Mature	95	24	Moderate deadwood. Branch failure stub(s). Fused limbs within mid crown.	Crown clean.	Low

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
18	Lime spp	Mature	79	23	Narrow forks within crown. Branch failure stub(s). Minor deadwood.	No work required.	
19	Lime spp	Early-Mature	49	13	Damage to surface roots. Epicormic growth at base.	No work required.	
20	Sycamore	Mature	81	18	Pruning wound(s) on stem with minor decay. Minor deadwood.. Branch failure stubs.	No work required.	
21	Sycamore	Mature	114	22	Stem occluding bench. Damage to surface roots. Minor deadwood.	No work required.	
22	Norway Maple	Semi-Mature	18	6	Good health & form.	No work required	
23	Lime spp	Mature	71	23	Epicormic growth at base constitutes a visibility restriction. Branch failure stub(s). Minor deadwood. Crown encroaching highway	Remove epicormic growth prior to next inspection. Crown lift to 4m over highway.	Low

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
24	Copper Beech	Semi-Mature	32	9	Basal wound. Included bark unions. Good health, reasonable form.	No work required.	
25	Horse Chestnut	Mature	106	20-25	Pruning wound(s) with decay in crown. Branch failure stub(s). Minor deadwood. Necrotic bark on limb within lower crown.	No work required.	
26	Sycamore	Mature	91	22	Damage to surface roots. Minor deadwood.	No work required.	
27	Sycamore	Mature	61	15	Stem leaning 10 degrees. Minor deadwood. Branch failure stub(s). Hanging broken branch(s).	No work required.	
28	Lime spp	Mature	87	22	Branch failure stub(s). Minor deadwood.	No work required.	
29	Beech	Mature	110	23	x2 drain pipes in stem - presume cavity above. Included bark unions. Cable-braced stems. Minor deadwood.	No work required.	

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
30	Sycamore	Mature	94	21	Minor deadwood. Branch failure stubs.	Remove deadwood over bench	Medium
31	Oak spp	Semi-Mature	36	11	Good health & form.	No work required.	
32	Lime spp	Mature	68	18	Epicormic growth at base. Branch failure stub(s). Minor deadwood.	Remove epicormic growth prior to next inspection.	Low
33	Sycamore	Mature	78	19	Pruning wounds upon stem. Minor broken limb hanging within the crown. Minor deadwood.	No work required.	
34	Lime spp	Mature	68	16	Epicormic growth at base. Branch failure stub(s). Minor deadwood.	No work required.	
35	Lime spp	Mature	55	19	Epicormic growth at base. Branch failure stub(s). Minor deadwood.	Remove epicormic growth prior to next inspection.	Low

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
36	Sycamore	Mature	94	21	Stem occluding bench - constitutes a visibility restriction. Ivy covered stem. Pruning wound(s) on stem. Stem sweep. Minor deadwood. Branch failure stub(s).	No work required.	
37	Birch spp	Mature	37	15-20	Good health & form. Minor basal cavity.	No work required.	
38	Sycamore	Early-Mature	47	13	Stem sweep. Pruning wound(s) on stem.	No work required.	
39	Sycamore	Early-Mature	41	10	Co-dominant stems at 2.5m.	No work required.	
40	Horse Chestnut	Mature	64	13	Pruning wound(s) on stem. Bacterial wetwood form on roadside pruning wound.	No work required.	
41	Sycamore	Mature	79	19	Minor deadwood. Good health & form. Hanging broken branch - stable in lower limbs.	No work required.	

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
42	Sycamore	Mature	99	24	Co-dominant stems at 3m. Branch failure stub(s). Deadwood stubs.	No work required.	
43	Lime spp	Mature	86	25	Epicormic growth at base, upon stem and within crown. Minor deadwood. Low limbs previously reduced.	Remove epicormic growth prior to next inspection.	Low
44	Lime spp	Mature	79	26	Co-dominant stems at 3m. Branch failure stub(s). Minor deadwood.	No work required.	
45	Sycamore	Mature	101	27	Multi-stemmed at 3.5m. Pruning wound(s) with decay in crown. Minor deadwood. Crown encroaching highway	No work required.	

Tree Survey Data - Hutton Rudby Village Hall

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
46	Ash				Removed following last survey		
47	Pine spp	Mature	65	16	Stem sweep. Minor deadwood snags. Large limb lost from upper canopy in past year.	No work required.	
48	Pine spp	Mature	67	18	Minor crown dieback. Stem sweep. Pruning wound(s) on stem	No work required.	
49	Pine spp	Mature	47	17	Reasonable health & form. Minor deadwood.	No work required.	
50	Pine spp	Mature	52	14	Stem sweep. Stem leaning 15 degrees. Slightly suppressed form.	No work required.	

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
51	Pine spp	Mature	63	16	No signs of ill-health or root plate movement following excavations undertaken 2 years ago within 60cm of stem base with visible destruction of roots up to 60mm diameter. Minor deadwood.	Monitor physiological and structural condition	Medium
52	Pine spp	Mature	51	12	Stem wound. Suppressed form. No signs of ill-health or root plate movement following excavations undertaken 2 years ago during installation of play equipment	No work required.	
53	Pine spp	Mature	71	17	Minor deadwood. No signs of ill-health or root plate movement following excavations undertaken 2 years ago during installation of play equipment	No work required.	
54	Leyland Cypress	Semi-Mature	38	7.5	Good health & form. Timber fixed to stem - bracing fence	Remove bracing	
55	Leyland Cypress	Semi-Mature	32	8	Good health & form. Timber fixed to stem - bracing fence	Remove bracing	
56	Cedar spp	Semi-Mature	32	8	Stem sweep. Good health, reasonable form.	No work required.	

Tree Number	Species	Age	DBH (cm)	Height (m)	Condition	Recommendation	Priority
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57	Horse Chestnut				Removed following last survey		
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4 Discussion & Recommendations

- 4.1 A total of fifty-five individual trees were inspected, down from fifty-seven the previous inspection due to two trees having been removed, both of which were located at the village hall. The majority of which are located within the grass verges in the village centre.
- 4.2 Of the trees Sycamore was most commonly recorded then Lime, Horse Chestnut and Pine. Also noted, in lesser numbers, were Copper Beech, Birch, Beech, Sweet Chestnut, Ash and Leyland Cypress amongst others.
- 4.3 Whilst species diversity is considered reasonable, there is little variety amongst age-classes. The overwhelming majority, some 75%, of the trees were classified as mature with early-mature trees accounting for a further 11% and semi-mature just 12%. The majority of the tree population being mature poses a potential problem with regards maintaining the areas long-term tree cover. If the presence of trees is seen as an important legacy then a program of tree planting in the coming years would be recommended.
- 4.4 The trees inspected were predominantly found to be of reasonable physiological and structural condition. Some superficial damage to surface roots, most likely caused during lawn mowing operations was noted in addition to other fairly minor and predominantly aesthetic issues such as suppressed form.
- 4.5 The recommended works, as specified within Section 3, are primarily limited to pruning operations to remove deadwood, prune crowns away from the highway and to remove epicormic shoots present at stem bases as they constitute a visibility restriction. The removal of the shoots would assist the next inspection greater if undertaken towards the end of the summer proceeding the next inspection.
- 4.6 In the 2017 survey it was noted that a number of trees had their roots damaged during excavations to install play equipment at the rear of the village hall. The extent of damage varies but Tree 51, a mature Pine, appeared to have suffered the greatest level with at least one root of approximately 60mm being severed close to the stem base. During this most recent inspection two years later there was no signs or symptoms to suggest declining physiological condition or structural instability of the affected trees.

Appendix 1 Tree Location Plans





Appendix 2 Arboricultural Glossary

Abiotic Factors – Nonliving factors of the environment, including temperature & wind.

Age-class – A general classification of the tree into either - young, semi-mature/maturing, mature, over-mature, or senescent.

Amenity Value – A general classification based on the trees contribution to local amenity. Factors such as location and visibility from public spaces, size, maturity and species are taken into account.

Apical Bud/Shoot – The apical bud, also known as the leading shoot, is responsible for shoot extension and is dominant.

Apical Dominance – A singular, leading shoot remains dominant.

Biotic factors - Living factors. For example, animals and pathogens.

Bottle Butt – Term used to describe shape of stem base, usually associated with an internal defect – refer to 'Reaction Wood' below.

Branch union/junction - The point at which a branch joins a larger stem. Can be a point of weakness, especially in certain species.

Cambium - A lateral meristem (see below) in vascular plants located just beneath the bark responsible for secondary growth, e.g. production of annual growth rings.

Canker – A clearly defined area of dead and sunken or malformed bark, caused by bacteria or fungi. Can have a bearing on structural integrity of infected limb(s) depending on size and location.

Chlorosis/Chlorotic – Abnormal yellow or yellow-green coloration of usually green leaves. Essentially a reduction of chlorophyll levels often as a result disease or nutrient deficiency.

Co-dominant stems - A growth characteristic, where two or more stems of similar size grow from the same point. Can create an inherent weakness.

Coppice - The method of managing trees by cutting the stems at between 1.0 inch and 1.0 foot from the ground level on a regular cycle, the cut stumps of the trees or shrubs are allowed to re-grow many new stems.

Crown spread - Gives distances between extreme limits of the crown and the stem, usually along the four compass points. Helps to show crown symmetry.

Crown Reduction – The removal of branch ends to reduce the extreme limits of a trees branch spread and height.

Crown Thin – The removal of selected branches within the crown to thin the internal branch structure.

D.B.H. - 'Diameter at Breast Height', an industry standard to gauge tree stem size and development. Within arboriculture, breast height is taken to be 1.5m above ground level.

Dieback - The reduction in crown vigour and extension growth progressing to death of distal parts; often associated with decline.

Epicormic/adventitious growth - New growth from dormant buds that can often form tenuous attachments. Although some species readily form such shoots, it can be an indication of stress.

Hanger – Term used to describe a branch that has become detached and is being supported by other branches. Can be a hazard to persons and property below.

Hazard Beam – After the loss of a distal part, a limb concentrates growth upwards creating adverse end weights that can render the limb susceptible to failure.

Included bark – Growth characteristic usually caused when two or more stems/branches growing in close proximity ‘fuse’ together entrapping the bark from when the parts were separate in the middle, creating a potential structural weakness.

Meristem - The undifferentiated plant tissue from which new cells are formed, such as that at the tip of a stem or root.

Meristematic Disorder – A growth disorder caused by a disruption of the meristem (see above) from any of a number of biotic factors (see above). Manifests as growths such as ‘Witches Brooms’ & ‘Galls’.

Necrosis/Necrotic – Death of tissues usually characterised by a blackening in colour.

Occlusion/Occluded – Normally used to describe the overgrowth of a wound. Also, immovable foreign objects in contact with a tree part can become encased or ‘occluded’ by the tree as it grows incrementally.

Pathogen - An agent that causes disease, especially a living micro-organism such as a bacterium or fungus.

Pollard – The removal and subsequent regular re-removal of the crown of a tree above animal browsing height. Can be an effective method of controlling the size of trees in urban areas. This is ideally begun in the trees early stages and maintained throughout its life.

PSULE – Potential Safe Useful Life Expectancy. A general classification as to the trees life expectancy. 0-10; 10-20; 20-40; 40+ years.

Reaction wood - Essentially additional wood laid down by the tree to compensate for structural defects such as a cavities.

Ring barking/Girdling – the removal of bark around the entire circumference of a stem or branch, causing the death of all distal parts.

Saprophyte – An organism which exists on dead plant material.

Scaffold branches - The main structural branches within the crown.

Veteran tree – Tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.

Vigour - A general classification, as to the present and future potential growth and development of a tree. A comment regarding the health status of the tree specific to its species.