



# AVArboriculture

## Arboricultural Survey

**Client:** Carnbee Owners' Association  
**Location:** Carnbee Estate, Carnbee Avenue,  
Edinburgh EH16 6GA

**Date of Survey:** 5th May 2020

**Survey Location:**

Carnbee Estate  
Carnbee Avenue  
Edinburgh  
EH16 6GA

**Survey commissioned by:**

Carnbee Estate  
Carnbee Avenue  
Edinburgh  
EH16 6GA

**Prepared by:**

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Signed:



Michael J Charkow

Date: 12th May 2020

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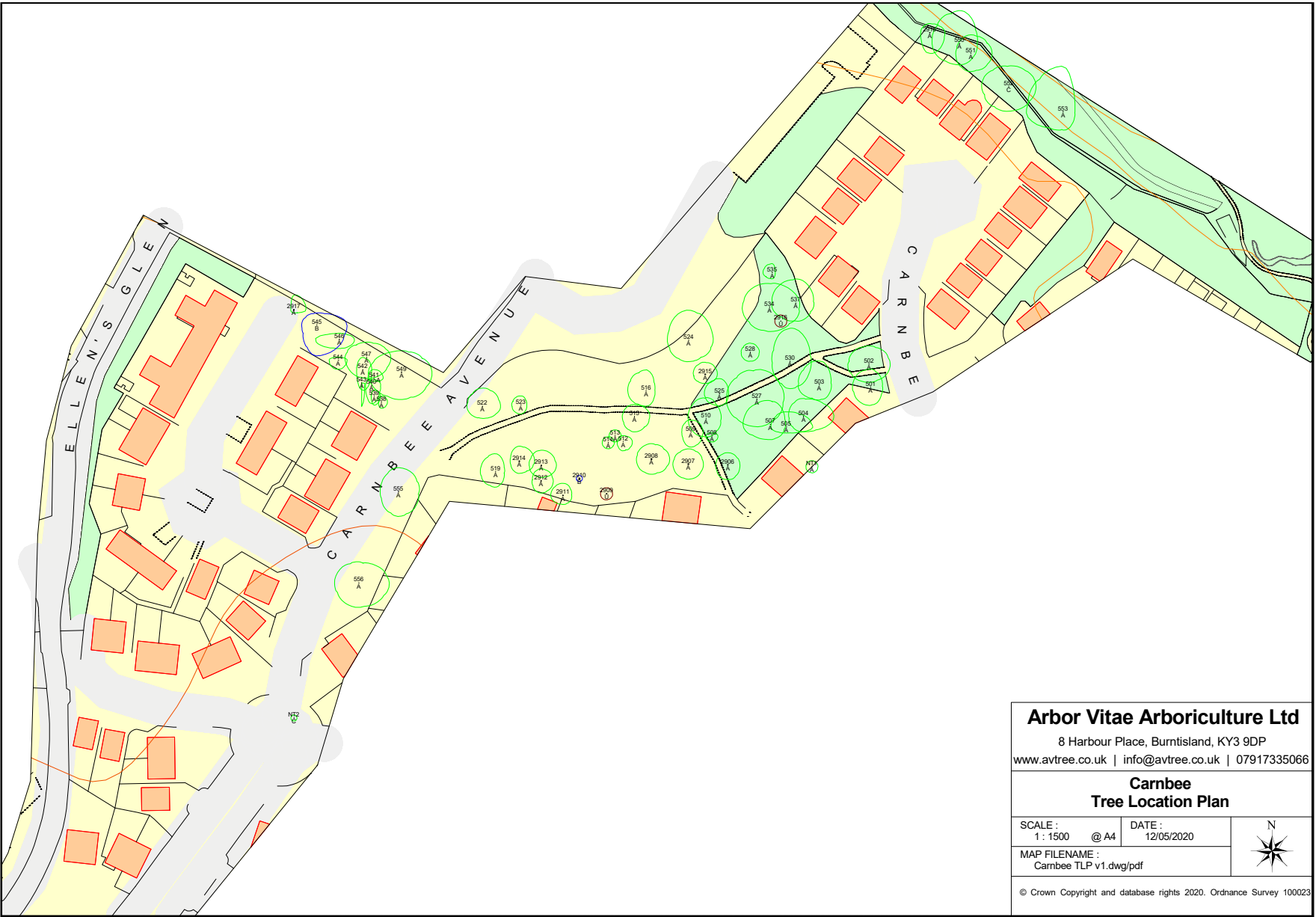
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## 1 Client Brief and Overview

- 1.1 Mike Charkow of Arbor Vitae Arboriculture Ltd was instructed by Carnbee Owners' Association, to undertake a tree condition inspection of specified trees at Carnbee Estate, Carnbee Avenue, Edinburgh EH16 6GA.
- 1.2 All of the inspected trees are protected by Tree Preservation Order 16.
- 1.3 57 trees were inspected and recorded. Only trees with recommended works or trees of concern were recorded.
- 1.4 Conditions were dry and bright with a light breeze.
- 1.5 Tree inspections are risk assessments. The risk rating is the likelihood of harm combined with the hazard. For instance, a large piece of deadwood above a road would have be high risk, whereas the same piece of deadwood above a little-used field would be low risk.

The work recommendations take into account the benefits of any hazard (the cost:benefit ratio). For instance, deadwood can be very useful habitat for insects, birds, fungi and bats. If the deadwood is low or moderate risk, or the hazard is small, then it may be that the benefits of retention outweigh the risk.

Work recommendations have been made according to the surveyors's perceived risk. The tree owners should assess the work recommendations according to their own knowledge and perception of the site usage and so as to be within their own sphere of comfort.



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<b>Carnbee Tree Location Plan</b>		
SCALE : 1 : 1500	@ A4	DATE : 12/05/2020
MAP FILENAME : Carnbee TLP v1.dwg/pdf		
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### 3 Survey Findings

- 3.1 41 trees were in good condition, 13 were in moderate condition and 3 were in poor condition.
- 3.2 Two trees were recommended for removal. A small Ash (tag 2909) is almost dead. A Western Red Cedar (2916) has missing bark due to fire damage and longitudinal cracks in the lower stem.
- 3.3 The upper crown of one Holly (2910) is mostly dead, although much of the lower crown is live. The tree could be safely retained by reducing the tree height to around 3-4 metres, where there is live growth.
- 3.4 A lower branch of a Beech (545) is becoming exposed and has a partial included bark union. The branch length should be reduced by around 1.5 metres (Photo 1)
- 3.5 A Lime (522) has some deadwood in the upper crown however I have judged this to be low risk. Should the tree owners deem the deadwood to be an unacceptable risk then it should be removed.
- 3.6 A recently planted Whitebeam (NT2) is now well established. The protective cage and tree-stake should be removed.
- 3.7 The basal inspection of one Sycamore (519) and one Lime (552) were impeded by epicormic growth. This growth should be removed prior to the next inspection.
- 3.8 Specific recommendations and timescales are given in the [tree schedule](#). Prioritised work recommendations are given in [appendix 10](#).
- 3.9 A Yew (516) and an Ash (2911) should be reinspected within 2 years. All other trees should be reinspected within 5 years. Should any obvious defect be reported to the committee then a qualified arboriculturist should be commissioned to inspect the affected tree(s).

Photo 1



Approximate recommended pruning points for tree 545 (Beech).

## Appendix 1: Bibliography

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### Legislation

Countryside Rights of Way Act (2000).

Nature Conservation (Scotland) Act (2004).

Town and Country Planning Act (Scotland) (1997).



## Appendix 2: **The Author's Qualifications and Experience**

Mike Charkow holds the Level 4 Certificate in Arboriculture, and also the LANTRA Professional Tree Inspection Certificate. He has been working in the industry since 2004 as both a contracting and consulting arborist.

As part of a continual professional development program, Mike regularly attends professional seminars, conferences, training days and meetings.

He has been accredited by 'Echoes Ecology Ltd' as a competent person to inspect trees for bats and their roosts.

He is a member of the Arboricultural Association and the Consulting Arborist Society.

### Appendix 3: Glossary of Arboricultural Terms

**Adaptive growth.** In tree biomechanics, the process whereby the rate of wood formation in the cambial zone, as well as wood quality, responds to gravity and other forces acting on the cambium. This helps to maintain a uniform distribution of mechanical stress.

**Adaptive roots.** The adaptive growth of existing roots; or the production of new roots in response to damage, decay or altered mechanical loading.

**Adventitious shoots.** Shoots that develop other than from apical, axillary or dormant buds; see also 'epicormic'.

**Anchorage.** The system whereby a tree is fixed within the soil, involving cohesion between roots and soil and the development of a branched system of roots which withstands wind and gravitational forces transmitted from the aerial parts of the tree.

**Architecture.** In a tree, a term describing the pattern of branching of the crown or root system.

**Bacteria.** Microscopic single-celled organisms, many species of which break down dead organic matter, and some of which cause diseases in other organisms.

**Bark.** A term usually applied to all the tissues of a woody plant lying outside the vascular cambium, thus including the phloem, cortex and periderm; occasionally applied only to the periderm or the phellem.

**Bottle-butt.** A broadening of the stem base and buttresses of a tree, in excess of normal and sometimes denoting a growth response to weakening in that region, especially due to decay by selective de-lignification.

**Branch:**

- Primary.** A first order branch arising from a stem

- Lateral.** A second order branch, subordinate to a primary branch or stem and bearing sub-lateral branches.

- Sub-lateral.** A third order branch, subordinate to a lateral or primary branch, or stem and usually bearing only twigs.

**Branch bark ridge.** The raised arc of bark tissues that forms within the acute angle between a branch and its parent stem.

**Branch collar.** A visible swelling formed at the base of a branch whose diameter growth has been disproportionately slow compared to that of the parent stem; a term sometimes applied also to the pattern of growth of the cells of the parent stem around the branch base.

**Brown-rot.** A type of wood decay in which cellulose is degraded, while lignin is only modified.

**Buckling.** An irreversible deformation of a structure subjected to a bending load.

**Buttress zone.** The region at the base of a tree where the major lateral roots join the stem, with buttress-like formations on the upper side of the junctions.

**Cambium.** Layer of dividing cells producing xylem (woody) tissue internally and phloem (bark) tissue externally.

**Canker.** A persistent lesion formed by the death of bark and cambium due to colonisation by fungi or bacteria.

**Crown clean.** The removal of dead, crossing, weak, and damaged branches, where this will not damage or spoil the overall stability or appearance of the tree.

**Compartmentalisation.** The confinement of disease, decay or other disfunction within an anatomically discrete region of plant tissue, due to passive and/or active defences operating at the boundaries of the affected region.

**Condition.** An indication of the physiological vitality and/or structural stability of the tree.

**Crown/Canopy.** The main foliage bearing section of the tree.

**Crown lifting.** The removal of limbs and small branches to a specified height above ground level.

**Crown thinning.** The removal of a proportion of secondary branch growth throughout the crown to produce an even density of foliage around a well-balanced branch structure.

**Crown reduction/shaping.** A specified reduction in crown size whilst preserving, as far as possible, the optimal tree shape.

**Deadwood.** Branch or stem wood bearing no live tissues. Retention of deadwood provides valuable habitat for a wide range of species and seldom represents a threat to the health of the tree. Removal of deadwood can result in the ingress of decay to otherwise sound tissues and climbing operations to access deadwood can cause significant damage to a tree. Removal of deadwood is generally recommended only where it represents an unacceptable level of hazard. Deadwood sizes: small (<25mm), moderate (<50mm), major (>50mm); the deadwood may be up- or down-rated depending on its overall volume.

**Defect.** In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.

**Dieback.** The death of parts of a woody plant, starting at shoot-tips or root-tips.

**Disease.** A malfunction in or destruction of tissues within a living organism, usually excluding mechanical damage; in trees, usually caused by pathogenic micro-organisms.

**Disfunction.** In woody tissues, the loss of physiological function, especially water conduction, in sapwood.

**Epicormic shoot.** A shoot having developed from a dormant or adventitious bud and not having developed from a first year shoot.

**Girdling root.** A root that circles and constricts the stem or roots possibly causing death of phloem and/or cambial tissue.

**Hazard beam.** An upwardly curved part of a tree in which strong internal stresses may occur without being reduced by adaptive growth; prone to longitudinal splitting.

**Heartwood/false-heartwood/ripewood.** Sapwood that has become disfunctional as part of the natural ageing processes

**Incipient failure.** In woody tissues, a mechanical failure which results only in deformation or cracking, and not in the fall or detachment of the affected part.

**Included bark.** Bark of adjacent parts of a tree (usually forks, acutely joined branches or basal flutes) which is in face-to-face contact.

**Internode.** The part of a stem between two nodes; not to be confused with a length of stem which bear nodes but no branches.

**Lever arm.** A mechanical term denoting the length of the lever represented by a structure that is free to move at one end, such as a tree or an individual branch.

**Lignin.** The hard, cement-like constituent of wood cells; deposition of lignin within the matrix of cellulose microfibrils in the cell wall is termed lignification.

**Loading.** A mechanical term describing the force acting on a structure from a particular source; e.g. the weight of the structure itself or wind pressure.

**Longitudinal.** Along the length (of a stem, root or branch).

**Minor (small) deadwood.** Deadwood of a diameter less than 25mm and or unlikely to cause significant harm or damage upon impact with a target beneath the tree.

**Occluding tissues.** A general term for the roll of wood, cambium and bark that forms around a wound on a woody plant (cf. woundwood)

**Occlusion.** The process whereby a wound is progressively closed by the formation of new wood and bark around it.

**Pathogen.** A microorganism which causes disease in another organism.

**Photosynthesis.** The process whereby plants use light energy to split hydrogen from water molecules, and combine it with carbon dioxide to form the molecular building blocks for synthesising carbohydrates and other biochemical products.

**Phototropism:** The growth of a tree or branch towards the light. Phototropic branches can become exposed and therefore prone to breakage.

**Pollarding:** A pruning system in which the upper branches of a young tree are removed, promoting a dense head of foliage and branches. Historically this was done to keep young shoots above grazing level; now used to keep trees at a manageable level. Not to be confused with topping.

**Reactive Growth/Reaction Wood.** Production of woody tissue in response to altered mechanical loading; often in response to internal defect or decay and associated strength loss (cf. adaptive growth).

**Removal of dead wood.** Unless otherwise specified, this refers to the removal of all accessible dead, dying and diseased branch-wood and broken snags.

**Re-spacing.** Selective removal of trees from a group or woodland to provide space and resources for the development of retained trees.

**Residual wall.** The wall of non-decayed wood remaining following decay of internal stem, branch or root tissues.

**Sapwood.** Living xylem tissues

**Shedding.** In woody plants, the normal abscission, rotting off or sloughing of leaves, floral parts, twigs, fine roots and bark scales.

**Sprouts.** Adventitious shoot growth erupting from beneath the bark

**Stem/s.** The main supporting structure/s, from ground level up to the first major division into branches. The stem (or stems if two or more co-dominant stems are present) may extend to the uppermost part of the tree.

**Stress (plant physiology):** A condition under which one or more physiological functions are not operating within their optimum range, for example due to lack of water, inadequate nutrition or extremes of temperature.

**Stress (mechanics):** The application of a force to an object.

**Structural roots.** Roots, generally having a diameter greater than ten millimetres, and contributing significantly to the structural support and stability of the tree; also containing water conducting vessels.

**Taper.** In stems and branches, the degree of change in girth along a given length.

**Targets.** In tree risk assessment (with slight misuse of normal meaning) persons or property or other things of value which might be harmed by mechanical failure of the tree or by objects falling from it

**Topping.** In arboriculture, the removal of the crown of an older tree, or of a major proportion of it. This is not generally advised as it can allow decay into the upper parts of the tree. Not to be confused with pollarding.

**Torsional stress.** Mechanical stress applied by a twisting force.

**Understorey.** A layer of vegetation beneath the main canopy of woodland or forest or plants forming this

**Wind exposure.** The degree to which a tree or other object is exposed to wind, both in terms of duration and velocity.

**Wind-throw.** The blowing over of a tree at its roots.

**Woundwood.** Wood with a typical anatomical features, formed in the vicinity of a wound.

## Appendix 4: Tree Survey Methodology

- A4.1 All specified trees within the site were inspected.
- A4.2 Trees were located on an Ordnance Survey map using an Android tablet with GPS capabilities and on-site features; exact tree locations are not guaranteed.
- A4.3 Individually numbered plastic tree tags were attached to the trees.
- A4.4 Recommendations for management of the trees refer mainly to the alleviation or removal of risks and nuisances.
- A4.5 Trees were inspected - where possible - using the Visual Tree Assessment method (VTA) as developed by Claus Mattheck and Helge Breloer (1994). This is a widely accepted methodology that takes into account structural and physiological symptoms from which judgements can be made regarding the risk from the tree.
- A4.6 Tree condition criteria are based approximately on the following requirements:
- Good** = Full healthy canopy. Free from major cavities, wounds, pests or diseases.
- Moderate** = Slightly reduced leaf cover, minor deadwood or isolated major deadwood. Early stages of decay/disease. Structural faults.
- Poor** = Overall sparse leafing or extensive deadwood. Well established decay organisms. Structurally unsound cavities and or large wounds. Structural features prone to failure.
- Very Poor** = Large areas of dead crown. Advanced decay. Structurally unsound.
- A4.7 Tree risk ratings (based on 'THREATS', Table 5, Julian Forbes-Laird, 2006)

Value	Static target examples	Target occupancy examples
Very high (VH)	Building 24 hour use, railway	Constant vehicular traffic/busy playground
High (H)	Building 12 hour use, ≥11Kv power lines	Frequent vehicular traffic/constant pedestrian use
Medium (M)	Building/structure occasional use, <11Kv lines	Peak times traffic/intermittent use, eg commuter run
Low (L)	Garage, Summer house, Listed wall	Occasional traffic/sporadic use, eg slow country road
Very low (VL)	Unlisted wall, paving, garden features	Infrequently used access/public right of way/bridleway
None (N)	Grass	Hardly ever used, eg remote path

## Appendix 5: **Caveats and Limitations**

- A5.1 This survey was conducted according to the VTA type 1 method (Mattheck & Breloer, 1994; Mattheck 2007) meaning survey work was carried out from ground level only.
- A5.2 No soil, foliage, wood, fungus or root samples were taken for analysis. Should any further investigation be required, this will be highlighted in the report.
- A5.3 No internal decay measurements were taken. Should any further investigation be required, this will be highlighted in the report.
- A5.4 Even apparently healthy, structurally sound trees can be adversely affected by extreme climatic conditions. Trees should be reinspected after such events.
- A5.5 Trees are living organisms and can decline in health rapidly due to biotic and abiotic influences. Therefore, due to the unpredictability of nature, the unforeseen failure of intact trees can never be ruled out. The findings of this report are based on observations made at one visit, and best judgement has been made to ensure that any remedial work has been recommended; however no guarantee can be given as to the safety of any individual tree. For this reason, findings and recommendations in this report are valid only for a period of 12 months from the survey date, or until any extreme weather event, whichever is soonest.
- A5.6 Only visible pathogens were recorded at the time of the survey. This does not confirm the absence of other pathogens but merely states that no annual fruiting bodies or other indications were observed at the time of the survey.
- A5.7 A Type 1 VTA cannot eliminate the possibility that any of the trees are used as a habitat for protected flora and fauna (e.g. bat roost). Reference to the legal documents 'Countryside Rights of Way Act' (2000) and 'Nature Conservation Act' (2004) (Scotland) is advised. The trees have been assessed for potential bat habitat, as well as bird nesting. Due to the difficulty of assessing the upper stems and crowns of larger trees from the ground (especially evergreen trees), some habitat features may not have been observed.
- A5.8 Due to physical constraints inherent on the site, some measurements have been estimated.

## Appendix 6: Trees and the Law

Below are summaries of tree law that is most pertinent to property owners in the UK:

**A6.1 Duty of Care:** The owner of a tree has a responsibility in law to manage the hazards posed by trees in their ownership. The Occupier Liability Acts state:

“Wherever a person has a sufficient degree of control over premises that he ought to realise that any failure on his part to use care may result in injury to a person coming lawfully there, then he is an occupier and the person coming lawfully there is his visitor: and the occupier is under a duty to his visitor to use reasonable care.”

**A6.2 Boundary Trees:** Ownership of the tree is determined by the property on which the stem and surrounding soil are (Holder vs Coates). This includes all tree parts. Joint ownership of a tree(s) can occur where the stem and surrounding soil are on multiple properties (Lemmon vs Webbs; Heatherington vs Gault). The latter case suggests that the tree is a ‘boundary tree’, and the owners of both properties have equal rights to carry out work.

**A6.3 Trees Encroaching into Neighbouring Property:** A tree whose stem and surrounding soil are entirely within one property may encroach into a neighbour’s property with its branches and/or upper stem. Such a tree is still owned in its entirety by the owner of the property. This includes the fruit and leaves even when they have fallen from the tree (Mills vs Brooker).

**A6.4 Protected Trees:** Trees can be protected in the UK by Planning Law, i.e. The Town and Country Planning Act 1990 (As Amended) , Town and Country Planning Act 1997 (Scotland). This protection can take the form of Conservation Areas, Tree Protection Orders, and trees on development sites. Applications must be made to carry out work on protected trees.

**A6.5 Protected Flora and Fauna:** Trees can be habitats for protected species, especially for bats. Several threatened UK species are protected either at UK level by Schedule 5 of the Wildlife and Countryside Act (1981) or at European level by Schedule 2 of the Conservation of Habitats and Species Regulations (2010). UK protected woodland species include the red squirrel and the stag beetle. European protected species (EPS) include all bats, great crested newts and the Scottish Wildcat (Woodland Trust, 2012).

Tree owners and tree inspectors should be aware of any signs of protected species, especially before and during any tree or related work. Following the discovery of any protected species, work should desist and the relevant statutory body should be contacted (i.e. Scottish Natural Heritage).

**Appendix 7: Tree Management Proposal**

- A7.1 The tree management proposals within this document should be carried out and the timescales for prioritised works respected.
- A7.2 All recommended arboricultural remedial work should be completed to the standards defined in BS3998 (2010) 'Recommendations for Tree Work' - or more recent best work practises - and be carried out by professional arborists with the relevant qualifications and insurance.
- A7.3 Standing deadwood is often created or maintained due to its habitat value. However, the deteriorating structural condition of dead trees is often impractical to monitor. Consequently, standing deadwood should not be retained if it is within falling distance of significant targets.
- A7.4 A qualified ecological worker should be consulted prior to any tree work in order to advise on the likely impact of tree work on any protected flora and fauna.
- A7.5 Trees that are potential bat habitats must be inspected by a suitably qualified person no more than 24 hours prior to tree surgery (April-September) or 48 hours (October -March).
- A7.6 Any proposed disturbance to trees containing bird nests should be carried out with mitigation, and only between October and February.
- A7.7 During periods of extreme weather, especially high wind or gusts (i.e. Beaufort Scale 7, above 30 miles per hour), it is advisable to warn residents, visitors and other site users of the potential risks, given the failure rate of trees under such conditions.



Appendix 8: **Key to the Tree Schedule**

<b>Abbreviation</b>	<b>Explanation</b>
<b>TN</b>	Tree Number: sequential number of the tree in order inspected.
<b>Tag</b>	Tag number (attached to the tree).
<b>Species</b>	Tree species: Common English name (Botanical name)
<b>H</b>	Tree height (metres).
<b>D</b>	Stem diameter: measured at 1.5 metres above ground (millimetres).
<b>AC</b>	<u>Age Class:</u> <b>Young</b> (up to the first 1/3rd of expected height), <b>Early-Mature</b> (1/3rd to 2/3rds of expected height), <b>Mature</b> (close to expected ultimate height with rapid girth expansion), <b>Over-Mature</b> (a senescing tree), <b>Veteran</b> (a valued tree surviving beyond the typical age for the species), <b>Dead.</b> <b>Newly Planted</b>
<b>V</b>	Vigour (physiological condition) of the tree. N = normal F = fair P = poor D = dead
<b>Condition</b>	Observations, particularly of structural and/or physiological condition (e.g. the presence of decay, defects and pathological infections), as well as nuisances caused by the tree. <b>Good</b> = Full healthy canopy. Free from major cavities, wounds, pests or diseases. <b>Moderate</b> = Slightly reduced leaf cover, minor deadwood or isolated major deadwood. Early stages of decay/disease. Structural faults. <b>Poor</b> = Overall sparse leafing or extensive deadwood. Well established decay organisms. Structurally unsound cavities and or large wounds. Structural features prone to failure. <b>Very Poor</b> = Large areas of dead crown. Advanced decay. Structurally unsound. <b>NWR</b> = no work recommended.
<b>Recommendations</b>	Management recommendations for the tree.
<b>U</b>	Urgency of the recommended tree works (in months).
<b>ERC</b>	Estimated remaining contribution of the tree (in years).
<b>RC</b>	<u>Recommendation Category:</u> A = no work B = pruning C = other work U = tree removal T = to be determined
<b>Bat</b>	Based on observations of possible bat roosting features - this does not indicate the actual presence of bats, rather the possibility of the tree being used by bats. H = high likelihood of roosting feature. L = low likelihood of roosting feature. U = unknown.
<b>RI</b>	Recommended maximum time until the next tree inspection (in months).

TN	TAG	Species	H	D	AC	V	Condition	Recommendations	U	ERC	RC	Bat	RI
1	501	Common Beech (Fagus sylvatica)	15	60	EM	N	GOOD	NWR	-	>40	A	L	60
2	502	Common Beech (Fagus sylvatica)	17	60	EM	N	GOOD	NWR	-	>40	A	L	60
3	503	Norway Maple (Acer platanoides)	14	60	EM	N	MODERATE Lower stem wound with robust wound wood.	NWR	-	>40	A	L	60
4	530	Copper Beech (Fagus sylvatica 'Purpurea')	19	60	M	N	MODERATE Lower stem wounds with robust wound- and reaction-wood.	NWR	-	>40	A	L	60
5	504	Norway Maple (Acer platanoides)	18	45	EM	N	GOOD	NWR	-	>40	A	L	60
6	505	Norway Maple (Acer platanoides)	18	45	EM	N	GOOD	NWR	-	>40	A	L	60
7	NT1	Common Ash (Fraxinus excelsior)	8	15	Y	N	GOOD	NWR	-	>40	A	L	60
8	507	Copper Beech (Fagus sylvatica 'Purpurea')	19	75	M	N	GOOD	NWR	-	>40	A	L	60
9	2906	Common Ash (Fraxinus excelsior)	16	270	EM	N	GOOD	NWR	-	>40	A	L	60
10	508	Lawson Cypress (Chamaecyparis lawsoniana)	16	30	EM	N	GOOD	NWR	-	>40	A	L	60
11	509	Lawson Cypress (Chamaecyparis lawsoniana)	17	60	EM	N	GOOD	NWR	-	>40	A	L	60
12	510	Algerian Fir (Abies numidica)	18	60	EM	N	GOOD	NWR	-	>40	A	L	60
13	2907	Common Oak (Quercus robur)	15	330	EM	N	GOOD	NWR	-	>40	A	L	60
14	2908	Common Oak (Quercus robur)	15	350	EM	N	GOOD	NWR	-	>40	A	L	60
15	2909	Common Ash (Fraxinus excelsior)	9	250	OM	P	POOR Almost dead.	FELL Remove the tree.	12	<10	U	L	-

TN	TAG	Species	H	D	AC	V	Condition	Recommendations	U	ERC	RC	Bat	RI
16	512	Cypress species (Cupressus sp.)	16	50	EM	N	GOOD	NWR	-	>40	A	L	60
17	513	Cypress species (Cupressus sp.)	7	30	EM	N	GOOD	NWR	-	>40	A	L	60
18	514	Cypress species (Cupressus sp.)	13	30	EM	N	GOOD	NWR	-	>40	A	L	60
19	515	Common Yew (Taxus baccata)	11	50	EM	N	GOOD	NWR	-	>40	A	L	60
20	516	Common Yew (Taxus baccata)	9	60	EM	N	MODERATE Bark missing from a stem to the SE and southern base but it is still vital and vigorous.	NWR	-	>40	A	L	24
21	2910	Common Holly (Ilex aquifolium)	8	400	OM	F	POOR Most of the tree is dead though some areas are functional.	PRUNE Reduce the height to the live crown: around 3-4m.	12	>40	B	L	60
22	2911	Common Ash (Fraxinus excelsior)	12	250	EM	F	MODERATE Some dead branches. Possible Ash dieback.	NWR	-	10-20	A	L	24
23	2912	Common Ash (Fraxinus excelsior)	15	200	EM	N	GOOD	NWR	-	>40	A	L	60
24	2913	Common Horse Chestnut (Aesculus hippocastanum)	11	180	EM	N	GOOD	NWR	-	>40	A	L	60
25	2914	Sycamore (Acer pseudoplatanus)	12	441	EM	N	MODERATE Included bark union from base with some fusion and upright stems.	NWR	-	>40	A	L	60
26	519	Sycamore (Acer pseudoplatanus)	19	55	EM	N	MODERATE A high crown but it is full and vigorous. Access to the base restricted by thick undergrowth.	NWR Clear the undergrowth around the base of the tree prior to the next inspection.	60	>40	A	L	60
27	522	Common Lime (Tilia europaea)	18	65	EM	N	GOOD Some deadwood in upper crown but it is low risk.	NWR Optional: Remove the deadwood.	12	>40	A	L	60
28	523	Common Holly (Ilex aquifolium)	8	70	M	N	GOOD	NWR	-	>40	A	L	60
29	524	Common Yew (Taxus baccata)	13	100	M	N	GOOD	NWR	-	>40	A	L	60
30	2915	Sycamore (Acer pseudoplatanus)	13	300	EM	N	MODERATE Lower stem wound but otherwise an intact and healthy tree.	NWR	-	>40	A	L	60

TN	TAG	Species	H	D	AC	V	Condition	Recommendations	U	ERC	RC	Bat	RI
31	525	Western Red Cedar (Thuja plicata)	12	490	EM	N	GOOD	NWR	-	>40	A	L	60
32	527	Copper Beech (Fagus sylvatica 'Purpurea')	25	110	M	N	MODERATE Some lower stem wounds but robust wound- and reaction-wood.	NWR	-	>40	A	L	60
33	528	Lawson Cypress (Chamaecyparis lawsoniana)	15	35	EM	N	MODERATE Lost leader but a vital and vigorous tree.	NWR	-	>40	A	L	60
34	2916	Western Red Cedar (Thuja plicata)	15	55	EM	N	POOR Fire damage to lower stem with necrotic sapwood and lower stem longitudinal cracks.	FELL Remove the tree.	12	<10	U	L	-
35	534	Copper Beech (Fagus sylvatica 'Purpurea')	20	55	M	N	MODERATE Dead fruiting bodies of Ganoderma in lower stem to north, east and south. Otherwise a robust and healthy tree.	NWR	-	>40	A	L	60
36	535	Common Holly (Ilex aquifolium)	10	35	EM	N	GOOD	NWR	-	>40	A	L	60
37	537	Common Ash (Fraxinus excelsior)	16	45	EM	N	MODERATE A moderately high crown. Stem wound at 9m with some probably localised decay; robust wound wood.	NWR	-	>40	A	L	60
38	538	Crimean Pine (Pinus nigra ssp. pallasiana)	18	35	EM	N	GOOD	NWR	-	>40	A	L	60
39	539	Crimean Pine (Pinus nigra ssp. pallasiana)	18	40	EM	N	GOOD	NWR	-	>40	A	L	60
40	540	Crimean Pine (Pinus nigra ssp. pallasiana)	18	65	EM	N	GOOD	NWR	-	>40	A	L	60
41	541	Crimean Pine (Pinus nigra ssp. pallasiana)	20	45	EM	N	GOOD	NWR	-	>40	A	L	60
42	542	Crimean Pine (Pinus nigra ssp. pallasiana)	18	60	EM	N	GOOD	NWR	-	>40	A	L	60
43	543	Crimean Pine (Pinus nigra ssp. pallasiana)	13	30	EM	N	GOOD	NWR	-	>40	A	L	60
44	544	Crimean Pine (Pinus nigra ssp. pallasiana)	19	35	EM	N	GOOD	NWR	-	>40	A	L	60

TN	TAG	Species	H	D	AC	V	Condition	Recommendations	U	ERC	RC	Bat	RI
45	545	Common Beech (Fagus sylvatica)	21	65	M	N	MODERATE Lower branch at 4.5m west is becoming exposed and has a partial included bark union.	PRUNE Reduce the branch length by around 1.5m.	12	>40	B	H	60
46	546	Common Oak (Quercus robur)	17	75	M	N	GOOD	NWR	-	>40	A	L	60
47	547	Common Oak (Quercus robur)	14	60	M	N	GOOD	NWR	-	>40	A	L	60
48	549	Sycamore (Acer pseudoplatanus)	22	95	M	N	GOOD	NWR	-	>40	A	L	60
49	550	Common Lime (Tilia europaea)	19	50	M	N	GOOD	NWR	-	>40	A	L	60
50	551	Sweet Chestnut (Castanea sativa)	16	55	M	N	GOOD	NWR	-	>40	A	L	60
51	552	Common Lime (Tilia europaea)	18	70	M	N	GOOD Basal inspection impeded by epicormic growth.	OTHER Clear the epicormic growth prior to the next inspection.	60	>40	C	H	60
52	553	Common Lime (Tilia europaea)	25	70	M	N	MODERATE Large basal cavity to west with robust wound wood and buttress roots. Slight lean to the north.	NWR	-	>40	A	L	60
53	555	Sycamore (Acer pseudoplatanus)	21	90	M	N	GOOD	NWR	-	>40	A	L	60
54	556	Common Oak (Quercus robur)	20	70	M	N	GOOD	NWR	-	>40	A	L	60
55	2917	Crimean Pine (Pinus nigra ssp. pallasiana)	10	300	EM	N	GOOD	NWR	-	>40	A	L	60
56	2918	English Elm (Ulmus procera)	17	200	EM	N	GOOD	NWR	-	>40	A	L	60
57	NT2	Whitebeam (Sorbus aria)	4	50	Y	N	GOOD	OTHER Remove the cage and stake.	12	>40	C	L	60

## Appendix 10 Prioritised Work Recommendations

TN	Tag	Species	AC	V	Condition	Recommendations	Bat
<b>Within 12 Months</b>							
15	2909	Common Ash ( <i>Fraxinus excelsior</i> )	OM	P	POOR Almost dead.	FELL Remove the tree.	L
21	2910	Common Holly ( <i>Ilex aquifolium</i> )	OM	F	POOR Most of the tree is dead though some areas are functional.	PRUNE Reduce the height to the live crown: around 3-4m.	L
27	522	Common Lime ( <i>Tilia europaea</i> )	EM	N	GOOD Some deadwood in upper crown but it is low risk.	NWR Optional: Remove the deadwood.	L
34	2916	Western Red Cedar ( <i>Thuja plicata</i> )	EM	N	POOR Fire damage to lower stem with necrotic sapwood and lower stem longitudinal cracks.	FELL Remove the tree.	L
45	545	Common Beech ( <i>Fagus sylvatica</i> )	M	N	MODERATE Lower branch at 4.5m west is becoming exposed and has a partial included bark union.	PRUNE Reduce the branch length by around 1.5m.	H
57	NT2	Whitebeam ( <i>Sorbus aria</i> )	Y	N	GOOD	OTHER Remove the cage and stake.	L
<b>Within 24 Months</b>							
26	519	Sycamore ( <i>Acer pseudoplatanus</i> )	EM	N	MODERATE A high crown but it is full and vigorous. Access to the base restricted by thick undergrowth.	NWR Clear the undergrowth around the base of the tree prior to the next inspection.	L
51	552	Common Lime ( <i>Tilia europaea</i> )	M	N	GOOD Basal inspection impeded by epicormic growth.	OTHER Clear the epicormic growth prior to the next inspection.	H