

Appendices to the Tree, Woodland and Hedgerow Management Policy

Cultural and Community Services
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Contents

Version Control.....	3
Approvals.....	3
Appendix A: Specification for Tree Works	4
A.1 Pruning and Felling Operations.....	4
A.2 Working Arrangements: General.....	5
A.3 Communications.....	5
A.4 Access.....	5
A.5 Statutory Services	6
A.6 Work In Public Places.....	6
A.7 Protection Of Trees, Shrubs And Other Site Features	6
A.8 Disposal Of Timber And Other Arisings	6
A.9 Health And Safety.....	7
A.10 Highways.....	9
A.11 Cemeteries	9
A.12 Pond Works.....	9
A.13 Residential Areas	9
A.14 Pruning	9
Appendix B	14
B.1 Legislative and National Context.....	14
Appendix D	18
C.1 Summary of Capital Asset Value for Amenity Trees (CAVAT)	18
Appendix D	19
D.1 Links To Useful Websites	19

Version Control

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1	Original draft for CCS HOS	July 2019
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Approvals

Approved by	Date

Associated Documentation

Description of Documentation

Appendix A: Specification for Tree Works

A.1 Pruning and Felling Operations:

A.1.1 Appendix 2 Specification for Tree Works

All tree work carried out on behalf of the Council shall comply with and will be quality assessed against this tree-work specification. This provides general instructions on how tree work will be carried out, particularly pruning, by describing different pruning techniques and how they shall be used and for what reasons. It supplements Policy point; 'Standards of Tree Work'. The quality of tree work undertaken is key to successful tree management and are the minimum standards the Council will accept. It could also be utilized for providing additional information to private tree owners and managers, particularly those with protected trees.

The British Standard Tree Work - Recommendations BS3998:2010 is referred to through this document. It is a more comprehensive guide to tree management techniques and will also be used to provide expected standards in relation to tree work.

Introduction

Pruning is the most common tree maintenance procedure. Pruning is often desirable or necessary improve tree structure, limit nuisance or maintain safety. Poorly executed or unnecessary pruning can do more harm than good since each cut has the potential to change the growth of a tree, cause damage or allow the entry of wood decaying organisms, therefore no branch should be removed without a good reason. Older trees do not tolerate pruning as well as younger trees and substantial pruning can be very damaging. The effect of pruning also varies between species and some are not naturally tolerant of cutting, notably beech and birch.

There should be a good reason to remove more than a quarter of a tree's leaf area in a single year, as this could seriously damage the tree (there are exceptions for practices such as pollarding). It is important to consider pruning over the entire lifespan of the tree or trees involved and not as a one-off single operation. Many trees generate adventitious sprouts, in response to over-pruning, as they attempt to replace the stored energy. However live-branch pruning is an essential part of forming good crown structure and is a necessary procedure in the management of specimen trees within residential parks and gardens.

This good practice guidance outlines the acceptable standards of tree work at the present time. It is based on various guidance but primarily on the British Standard Recommendations for Tree Work (BS3998:2010) and the Arboricultural Advisory and Information Service's Arboriculture Research Note 48, 'A Definition of the Best Pruning Position'. Any reputable service provider will be aware of and familiar with these publications and will be able to carry out work to the required standard. This guidance deals with the most common procedures undertaken in tree work, however more specialised pruning may occasionally be specified.

The type of pruning will vary according to the tree species, age, condition, past works and the nature of any fault or complaint associated with the tree.

A.1.2 When is pruning justified? Pruning is usually found to be necessary because of the following reasons:

- To maintain health and safety of the tree.
- Obstruction to users of the highway and/or private property.
- To abate actionable nuisance.

A.1.3 Intervals for Pruning - Pruning can take place at most times of the year but ideally leaf

flushing and fall should be avoided as well as flowering periods. Certain species have more specific times because of the risk of disease and/or bleeding. (See table B1)

- A.1.4 Although most minor pruning can be carried out at any time of the year, where possible it is desirable to avoid pruning operations when deciduous trees are coming into leaf and in the autumn when they are losing their foliage as the trees ability to close wounds is depleted and the tree can lose valuable energy reserves. This is particularly important if it is necessary to carry out heavy pruning or work on older trees.
- A.1.5 The pruning of maples (including sycamore), lime and birch should be avoided in the early spring when the sap is starting to rise as they will bleed sap from the pruning wound. This bleeding is harmless but wastes the trees resources and is unsightly.

A.2 Working Arrangements: General

B.2.1 Work Categories

- B.2.1.1 All instructions under this Service will be given in writing by the Authorised Officer to the Service Provider except in the case of Emergency works where the instruction may be given orally and will be confirmed in writing
- B.2.1.2 Each such instruction will indicate the time within which the work must be completed. The Service Provider will be given as much notice as possible of tasks to be carried out with the intention of providing an even workload throughout the year.

B.2.2 Emergency Callouts

- B.2.2.1 The agreed Service Provider shall provide all emergency callout cover outside normal working hours, including Bank Holidays, with response times being developed as part of service level agreements
- B.2.2.2 The Authorised Officer shall be informed of any emergency callouts undertaken by the Service Provider with information on the circumstances around the call-out. The Service Provider will remove all arisings from such operations, being cleared within 12 hours. Service Providers will be given and be expected to understand the Council's Emergency Plan – TBC. Major tree incidents will be tackled with reference to this Plan

B.3 Communications

- B.3.1 The Service Provider shall ensure that a suitable member of its own staff is contactable by the Authorised Officer during all tree work operations, including tree planting
- B.3.2 All gangs working under this Service shall be contactable via a mobile telephone linking the Service Manager to his employees. This is to enable the Authorised Officer to obtain a prompt response from the Service Provider when required.

B.4 Access

- B.4.1 Access to the sites shall be by public roads or other defined routes, which shall be identified by the Authorised Officer either on plans or on site. The Service Provider will be responsible for ensuring that its operatives' vehicles and those of suppliers and others employed on the works use only agreed routes
- B.4.2 Where it is necessary to enter or cross land which is not the Council's property, or which is in the possession of another party, the Service Provider shall normally be responsible for making their own arrangements for access. Where difficulties arise the Authorised Officer may assist in making suitable arrangements.

B.4.3 The Service Provider must ensure that where vehicular access has been gained to a site by unlocking a gate or removing a bollard or barrier, the access is re-secured and locked where applicable immediately behind the Service Provider's vehicles using the access.

B.4.4 The Service Provider shall ensure that site transport directly or indirectly involved in the works shall at all times when leaving the site be in a state of cleanliness to prevent the fouling of public or private roads leading to and from the site.

B.5 Statutory Services

B.5.1 The Service Provider shall be held responsible for locating and marking the position of all statutory undertakers' apparatus and private supplies e.g. water, gas, electricity, telephone, mains and service connections and is to arrange with the appropriate authority for the disconnection of services and removal of fittings and equipment where required and also for reconnection.

B.6 Work in Public Places

B.6.1 Where works are to be undertaken at locations to which the public have access, the Service Provider shall take every precaution to ensure their safety. This shall include providing sufficient staff to restrict or redirect the public and erecting signs, cones, barriers and the like as necessary.

B.6.2 The Service Provider shall not leave any Plant unattended on any location without the prior consent of the Authorised Officer in which case it will be left in a safe condition with adequate warning signs, lamps, cones and the like provided to safeguard the public. Any liability will reside with the service provider

B.7 Protection of Trees, Shrubs and Other Site Features

B.7.1 The Service Provider shall take all reasonable precautions against damage to the remaining trees and shrubs on the area or in any neighbouring woods, or to buildings, walls, gates, fences, hedges, drains and other public services, watercourses, roads, rides and tracks in the vicinity of its work and shall be liable for any damages thereto due to any act of default of the Service Provider and shall make good any damage at their own expense

B.7.2 At no time shall the Service Provider use climbing irons (spikes) when climbing live trees, except where those trees are to be felled. Standing trees must not be used as an anchor point for winches unless prior consent is received from the Authorised Officer

B.7.3 Ruts and damage to grass areas shall be made good before the Service Provider leaves the site and to the satisfaction of the Authorised Officer.

B.7.4 The Service Provider shall be responsible for all expenditure incurred for any reinstatements or replacement required following works.

B.8 Disposal of Timber And Other Arisings

B.8.1 Brushwood (Up to 125mm diameter)

Unless otherwise specified by the Authorised Officer or the site is inaccessible, all brushwood shall be chipped, and the chippings disposed of by the Service Provider at a site of its own discretion

B.8.2 Cordwood and Timber (in excess of 125mm diameter)

Unless otherwise specified by the Authorised Officer, the Service Provider shall dispose of all cordwood and timber. If the council requires such wood to be retained the Authorised Officer will inform the Service Provider of the specifications the wood will be cut to and the site, if any, to which it is to be removed. This site may be different from that indicated in 8.1.

The Service Provider shall ensure that any timber or cordwood left at a specified storage site shall be stacked in a safe and neat condition.

- B.8.3 All arisings, including stakes, ties and tree guards (where applicable) shall be removed from the site daily unless prior permission to do otherwise is received from the Authorised Officer. Where permission is given to leave arisings, timber and cordwood on site, the Service Provider shall be fully responsible for ensuring that they are left tidy and in a safe and secure condition. Any cordwood and timber not required by the Council will be removed by the Service Provider and disposed of at their own expense
- B.8.4 All removal and disposal must be carried out safely and the movement and disposal of material must comply with all relevant legislation which is in force at the time of the work being carried out including provision of waste transfer notes where applicable.
- B.8.5 Any tipping fees or other charges or costs incurred in the removal or disposal of any arisings will be assumed to have been included in the Service Providers rates.
- B.8.6 The working site shall be left clean, tidy and in a safe condition at the end of each working day.

B.9 Health and Safety

B.9.1 General

The Service Provider in all operations will comply at their own expense with all current and future relevant codes, Statutory Instruments, European legislation, regulations and statutes relating to health, safety and welfare in forestry, arboriculture, biodiversity, landscape and agricultural operations.

B.9.2 Work Wear

Whilst in any work location all of the Service Provider's employees shall wear appropriate safety footwear for the conditions and type of work undertaken, in accordance with their risk assessments.

B.9.3 The Authorised Officer requires there to be two experienced operatives on site at all times whilst either chainsaw or chipping machine are employed. At least one grounds operative must be equipped and able to climb in order to undertake aerial rescue should the need arise.

B.9.4 Reflective/ high visibility clothing shall be worn at all times when engaged in work on public highways.

B.9.5 First Aid

At least one member of a work team should have a recognised First Aid qualification to comply with the H&S (First Aid) Regulations 1981

B.9.6 Use of Chemicals

In this document the term "pesticides" includes products such as herbicides, fungicides and insecticides. The use, application and storage of pesticides shall be carried out in accordance with the provisions laid down in the Control of Pesticides Regulations 1986, Food and Environment Protection Act 1985 and the Control of Substances Hazardous to Health Regulations 1988 and as defined in the Provisional Code of Practice for the Use of Pesticides in Forestry 1989 and subsequent reviews of this legislation.

B.9.7 The Service Provider and all its employees involved in the storage, transport or application of any pesticide shall be fully trained and certificated to undertake the required operation.

The Service Provider shall supply the Authorised Officer with a list of employees who hold the relevant certificates, together with copies of those certificates before the commencement of the Service. The Service Provider shall keep the Authorised Officer updated should any employee gain certification during the course of this Service.

- B.9.8 Should the use of any pesticide result in any damage whatsoever to any turf, plants, trees or soil other than those intended specifically to be controlled by the product or to any other flora or fauna within or outside the area to be treated, then the Service Provider shall be held fully liable and shall fully indemnify the Council accordingly.
- B.9.9 The Service Provider shall ensure that all operatives involved with the application of pesticides are supplied with, and wear at all times, appropriate protective clothing complying with the recommendations for the chemical being handled.
- B.9.10 All operators must be supplied with and must use appropriate equipment to apply the pesticides concerned.
- B.9.11 All pesticides shall be kept safe under lock and key when not in use. Empty containers shall be removed from site, washed out and disposed of safely. Suitable records shall be kept for all stock and its use.
- B.9.12 Use of pesticides shall only be undertaken during suitable weather conditions.
- B.9.13 The Service Provider shall take all necessary precautions to protect rivers, streams, waterways and the like against silting, erosion and pollution which may be likely to damage water supplies or cause injury to fish or plant life.
- B.9.14 Operators shall have sufficient water supply for drinking, personal washing, washing down equipment and diluting pesticides as necessary.
- B.9.15 Fires

No fires shall be lit in any park, garden, open space or woodland, without the prior consent of the Authorised Officer. Where fires are permitted, the Service Provider shall:-

- ensure that the fire is controlled to prevent damage to surrounding trees and shrubs (crown, canopy, stem and root) and property and to prevent nuisance from smoke.
- ensure that fires are not lit under or near to overhead power lines or close to highways
- ensure that the fire is not allowed to burn unattended at any time.
- At the end of the working day, the Service Provider must completely extinguish and liberally douse with water all fires so that when going off site, the fire site cannot constitute a danger to the public and the environment.
- ensure that on completion of all works, the fire site shall be tidied nearly and all non-combustible debris removed to a legal tip.
- that the local Fire Service is informed of the location of fires before they are lit.

B.9.16 Noise

The greatest care shall be taken by the Service Provider to keep noise to a minimum at all times, having regard for nearby offices, houses and flats and they shall abide by the requirements of the 1989 Noise at Work Regulations and the working hours requirements.

B.9.17 Tools and Equipment

The Service Provider may use such tools and equipment as deemed suitable. All tools shall be kept sharp and in serviceable condition.

- B.9.18 The Service Provider shall ensure that all staff engaged in the use of chainsaws hold the appropriate Chainsaw Certification for the task being undertaken.

B.9.19 Defects in Trees

The Service Provider shall not be expected to have foreknowledge of less obvious defects in trees but, where applicable, they shall report any defects to the Authorised Officer to agree on any necessary variation to the work. Failure to report any obvious defects may result in the Service Provider being liable should any claim against the Council be made.

WORKING ARRANGEMENTS: SPECIFIC

B.10 Highways

- B.10.1 This work is carried out under a cultivation licence agreement with the Highway Authority, Derbyshire County Council.

- B.10.2 Where work is to be carried out adjacent to a public highway, the Service Provider shall arrange the works so as to avoid traffic congestion and public inconvenience and shall make all necessary arrangements with Police, Fire Service, Ambulance Services and Bus Companies. The Service Provider shall be responsible for all prior erection of notices and "no parking" cones where clear working sites are required.

- B.10.3 The Service Provider shall comply with the recommendations contained in the booklet "Safety at Street Works and Road Works - A Code of Practice" (1992) issued by HMSO.

B.11 Cemeteries

- B.11.1 The Service Provider shall give at least 48 hours' notice of any work to be carried out in any cemetery, whether open or closed to the Cemetery Manager. The Service Provider on arrival at the Cemetery should contact the Cemetery Manager. The Service Provider shall stop work if requested either by the Cemetery Manager or Authorised Officer should any burials be taking place in the cemeteries in which he is working at the time. Contact numbers are given at the end of this Section.

B.12 Pond Works

- B.12.1 The Service Provider may occasionally (1 or 2 days per year), be required to carry out works on or around areas of water which shall require use of a boat. In such instances, the Service Provider shall be required to undertake an appropriate risk assessment, to supply a boat in a suitable and safe condition and also to provide all necessary safety equipment e.g., life jackets.

B.13 Residential Areas

- B.13.1 Where work may affect occupiers living in an area e.g., if access to their property is required, the Service Provider must give 48 hours' notice to the relevant occupants except in the case of life/property-affecting emergency.

B.14 Pruning

B.14.1 General

Subject to General Condition 16, unless specified otherwise, tree works should conform to British Standard 3998: 1989 - Tree Work, or any subsequent revision thereof.

- B.14.2 When carrying out work to trees, growth shall be cut approximately one metre clear of any streetlamps, or cables of suspended street lighting, traffic signs, traffic lights, street name plates etc. Growth should be cut approximately 2 metres clear of any window or adjacent

property. Growth shall be lifted 3 metres clear over pavements and 5.5 metres clear over carriageways, or as directed by the Authorised Officer.

- B.14.3 In removing growth, branches shall be cut back to another branch or limb to give a natural formation and presentation, the angle of the cut should be the mirror image of the branch bark ridge (see Fig1)

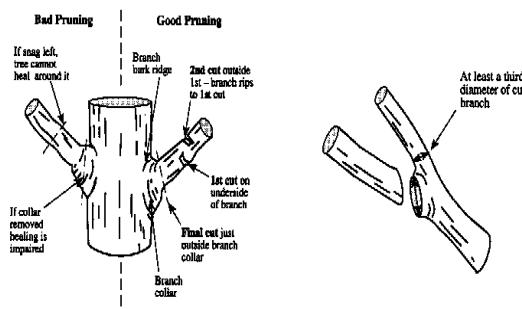


Fig 1

- B.14.4 Appearance of Trees

Each tree shall be individually considered and the general description of the work to be done shall be interpreted in relation to the shape, size, character, condition, and species of each tree. All operations carried out shall be completed so as to leave each specimen with a pleasing and well-balanced appearance, compatible with safety. The Authorised Officer shall determine this.

- B.14.5 Timing

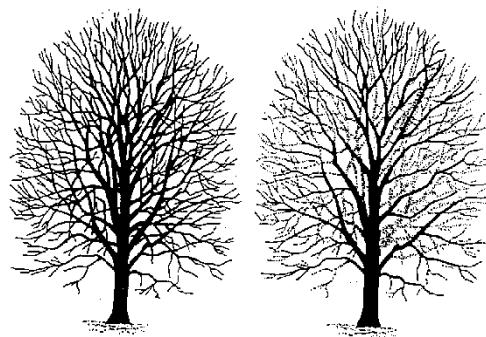
The Service Provider shall ensure that the species indicated below are not pruned otherwise than during the circumstances specified. Further information is given in BS3998:2010 British Standards 3998: 2010 'Recommendations for Tree Work'. For the purposes of this policy, other genera can be pruned all year round. Pruning should be avoided when any tree is under stress from environmental factors for example during or soon after a period of drought or waterlogging.

Table B1

Genera	Times
Corylus spp Acer spp Betula spp Alnus spp Carpinus spp	Only to be pruned in full leaf and before October
Juglans spp	After 23 rd July and before late September
Prunus spp	Following flowering and before 31 st August

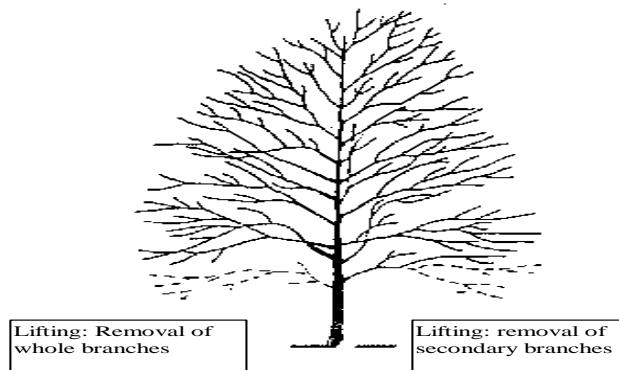
- B.14.6 Crown Thinning

Crown thinning is generally undertaken, when there is a desire to improve light through the canopy of a tree. It involves the removal of a percentage of secondary and small live branch growth from throughout the crown to produce an even density of foliage around a well-spaced and balanced branch structure. Crossing, weak, duplicated, dead and damaged limbs are removed. **Fig 2**



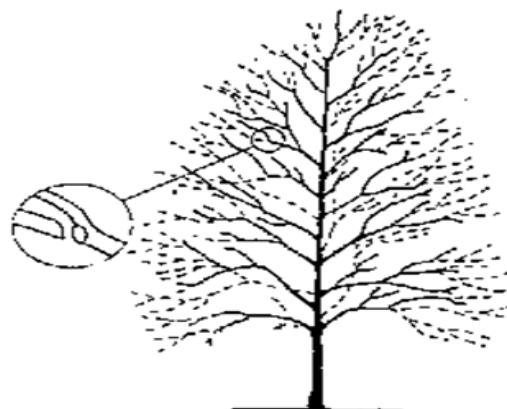
B.14.7 Crown Lifting

The removal of lower branches or parts of branches in the crown to achieve adequate height clearance, considering for each individual tree the total tree height, the site, traffic (pedestrian and vehicular) and good Arboricultural practice. This operation may also include the removal of major limbs. (This should be carried out in a way that maintains an acceptable, balanced crown shape and a branch structure conducive to the future development of a healthy, mechanically sound crown.) **Fig 3**



B.14.8 Crown reduction

Crown reduction is defined as the reduction of the complete outline dimension of the canopy, from the tops of limbs and branches toward the main trunk, by pruning growth to an appropriately sized lateral branch, twig, or bud to leave a flowing silhouette. In addition, all soft growth from the tree's trunk shall be removed from those trees being subject to a crown reduction. **Fig 4**



B.14.9 Coronet Cuts

A coronet cut is a technique for producing a natural fracture effect in cut stubs ends. It is carried out as a pruning treatment to a stub or reduced limb to mimic natural breakage. The form of the coronet cut is designed to shape the branch or trunk end-surface to resemble the fracture that might be imagined following a storm, such as Beaufort storm force 9/10 and is cut to resemble a broken or shattered appearance.

B.14.10 Pollarding

This practice is mainly carried out on trees which have a history of pollarding (e.g. Lime trees in Churchyards). All the regenerated shoots and branches of the tree or shrub are cut back to the main stem over the entire Pollard with the objective of producing a quantity of vigorous shoots from the bole. When correctly done, this form of pruning enables trees, which normally grow much larger, to be kept in restrictive locations. Pollarded trees can often outlive natural un-pollarded specimens'

B.14.11 Re-Pollarding

This work will usually apply to re-grown Lime trees. These trees historically managed as pollards have fully re-grown crowns. This work will then return these trees to bi-annual pollard management.

B.14.12 Retrenchment Pruning

Retrenchment pruning is term used to describe the technique that has been developed in the field of environmental arboriculture to imitate the natural process of ageing. Crown retrenchment is used to describe the way in which peripheral dieback occurs as the tree redirects energy and growth to the formation of a consolidated lower region of the crown.

B.14.13 Ivy Removal

In cases where trees are colonised by ivy, this can be left undisturbed unless the tree is becoming visibly suppressed or is likely to be vulnerable to wind damage. Ivy provides valuable habitat and should not be removed during the bird nesting season.

B.14.14 Epicormic Growth Removal

This operation involves the removal of epicormic growth from the base and main stem to 1m above the 1st. main limb, or 5m whichever is the greater. (Removal of epicormic growth must be kept to a consistent height, considering the different type and size of trees on each site). All final cuts are made level with the source branch, stem, or root so as not to leave a stub and are made with hand tools.

B.14.15 Removal of Dead Wood

All dead, dying or diseased branch wood, broken branches or stubs left from previous tree surgery operations are removed from the tree, and from within any cavities within the tree.

B.14.16 Reinstatement of Holes

Holes in the ground resulting from stump grinding or grubbing operations shall be treated as follows:-

- all risings from the chipping operation to be removed (see Section 16.4.)
- the hole to be backfilled and compacted with topsoil according to BS3882: 2007. Soil to be supplied by the Service Provider.
- topsoil should be of medium texture, neutral to slightly acid and stone free.
- topsoil should be raised to 100mm proud of the surface of all holes to allow for settlement.

B.14.17 Stump Treatment

Broadleaves: in order to prevent re-growth, the stumps of broadleaf trees shall be treated with an approved herbicide, unless instructed that coppice regrowth is required.

Conifers: in order to prevent infection by *Heterobasidion annosum* (Syn: *Fomes annosus*), the stump of conifers shall be treated with an approved herbicide where instructed.

Before the application of herbicide, the cut surface of the stump should be scored with a chainsaw in order to expose a greater surface area to the chemical being applied.

B.14.18 Service Providers must ensure that use of chemicals does not compromise compliance with the Wildlife and Countryside Act 1990, or any subsequent legislation.

Tree Species	Stump Diameter (cm)	Number of Ecoplugs
Group 1: Alder, Aspen, Beech, Birch, Elm, Lime, Maple, (Sycamore), Mountain Ash, Willow	3-6 cm	1
	6-10 cm	2
	10-14 cm	3
	14-18 cm	4
	>20 cm	6-8 cm between plugs
	Each buttress root	1
Group 2: Ash, Cherry, Bird Cherry, Oak	3-6 cm	2
	6-10 cm	3
	10-14 cm	4
	14-18 cm	6
	>20 cm	5-6 cm between plugs
	Each buttress root	2
Group 3: Poplar, Rhododendron, Elder, Tree of Heaven	3-6 cm	2
	6-10 cm	4
	10-14 cm	6
	14-18 cm	8
	>20 cm	3-4 cm between plugs
	Each buttress root	2

Please Note: The Plug Pack and the **Ecoplug 13 mm Drill Bit** are sold separately



Appendix B

N.1 Legislative Context

South Derbyshire District Council's Legal Position in Relation to Trees in its Ownership/Duty owed by landowners regarding responsibility and risk

- N.1.1 Owners of trees have a legal duty of care and are obliged to take reasonable care to identify risks and ensure that any foreseeable hazards can be identified and made safe. Although it is not possible to completely eliminate the risk of a tree failing, there are often indications that a tree may be in decline, have structural faults, is damaging property or is suffering from decay or pests and diseases. Many of these signs can be recognized by first-line trained inspectors who can then instigate further investigations by a qualified arboriculturist.
- N.1.2 Under UK law, in England and Wales, the Occupiers' Liability Act 1957 and 1984 governs liability. The earlier Act deals with any liability relating to visitors, i.e. persons who enter the land or premises either by invitation or by permission. The later Act deals with liability to other persons, including trespassers. Occupiers can be held negligent in their duty of care even if injury or damage occurs on land where people do not have access by right or invitation. Under General Liability, a tree owner has a 'Duty of Care' to its 'neighbours' with regards to the regular inspection and hazard abatement of its tree stock. This duty is laid down in
- Occupiers Liability Acts of 1957 & 1984
 - Highways Act 1980 (especially section 130),
 - The Miscellaneous Provisions Act 1976 'Dangerous Trees and Excavation'
 - Health & Safety at Work Act 1974 (for bystanders' sec 3(1)).
 - Criminal Liability can be pursued under Section 3 of The Health and Safety at Work Act 1974, where there is a general duty of care at Common Law to take reasonable care to avoid injury to your neighbour.
 - Corporate Manslaughter and Corporate Homicide Act 2007
- N.1.3 In the event of a claim arising from personal injury or other damage involving a tree, the occupier of land will, in most cases, be liable if found negligent in meeting their duty of care.
- N.1.4 Without any system of inspection or maintenance, the consequences to the Council are not simply monetary but could lead to conviction under the Corporate Manslaughter and Corporate Homicide Act 2007. For proof of negligence, it will usually have to be shown that it was reasonably foreseeable that the tree might do damage and that mitigation measures were insufficient. It for this reason that trees identified on a schedule for treatment should be dealt with within the required timescales. If a tree has not been dealt with in the recommended 'foreseeable' timescales the council is likely to be deemed liable
- N.1.5 Liability claims can be made against the Council if it is alleged that the Council's negligence is deemed to have caused injury, loss or damage to a third party or their property, for example if a tree branch falls and damages a car. Claims of this nature will be decided on the facts of each claim. The Council puts itself in the best possible position possible to defend any claims if it can demonstrate that it has a reasonable risk-based approach to inspection and a thorough pro-active maintenance programme for its trees and keeps accurate records to demonstrate that this has been adhered to. The Council must prove it adheres to its approved policy, processes and work programmes to mitigate its risk of proven negligence. Where negligence is not proven, the failure of a tree would be deemed an "Act of God".

- N.1.6 Trees in Towns II (a study carried out for the Department of Communities and Local Government by ADAS (Agricultural Development and Advisory Service) and Myerscough College in 2008) states that at least 40% of the local authorities' tree maintenance work should be done on a systematic, regularly scheduled cycle. This is in contrast to work that is done 'on demand' in response to requests, complaints or hazardous situations. The 40% level is now generally recognised as a benchmark indicating a relatively systematic and planned approach to tree maintenance work.
- N.1.7 Generally, legal precedents from the courts appear to indicate that the standard of inspection is proportional to the size of and resources available (in terms of expertise) to the landowner. The courts have not defined the standard of inspection more precisely than the standard of "the reasonable and prudent landowner". The HSE states in the HSE sector information minute Management of the risk from falling trees (HSE 2007), that: "for trees in a frequently visited zone, a system for periodic, proactive checks is appropriate. This should involve a quick visual check for obvious signs that a tree is likely to be unstable and be carried out by a person with a working knowledge of trees and their defects, but who need not be an arboricultural specialist. Informing staff who work in parks or highways as to what to look for would normally suffice".
- N.1.8 Recent court cases have concluded that landowners of trees adjacent to high-risk zones such as highways should ensure a minimum of 18-monthly inspections are undertaken
- N.1.9 Pro-active, defendable tree management
- N.1.10 All tree-owning Council's should operate a pro-active defendable system for managing trees and tree risk (for court/ tribunals/ ombudsman/ insurance purposes). Accepted good practice, as benchmarked with similar councils, usually includes the following elements
- A Tree Management/ Maintenance Policy
 - A stock inventory of all owned trees (preferably on an e-database)
 - All owned trees are mapped (preferably using a GIS-based system)
 - All trees are risk-assessed using a recognized assessment system
 - All trees are inspected according to the priorities of risk assessment system
 - A system for collating tree concerns from members of the public etc. with appropriate follow-up inspections
 - All essential safety work and required treatments collated into a tree work programme based on inspections, priorities and identified risks/hazards etc.
 - Resources made available to deliver the identified essential tree work programmes

N.1.11 Wildlife and Countryside Act 1981(Trees)

The *Wildlife & Countryside Act 1981* is one of the most important pieces of Wildlife legislation in the UK. It states it is an offence to:

- Intentionally kill, injure or take any wild bird
- Intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built
- Intentionally take or destroy an egg of any wild bird

The *Wildlife & Countryside Act 1981* has several subsequent amendments the most important being the - The *Countryside and Rights of Way Act 2000* (CROW) which under Schedule 12 of the Act strengthens the legal protection for threatened species. It also makes certain offences 'arrestable' and importantly and significantly creates a new offence of **reckless disturbance**. It also confers greater powers to police and wildlife inspectors for entering premises and obtaining wildlife tissue samples for DNA analysis, and also enables heavier penalties on conviction of wildlife offences.

N.1.12 The Natural Environment and Rural Communities Act 2006

Section 40 of the NERC Act places a duty to conserve biodiversity on public authorities in England. It requires local authorities and government departments to have regard to the purposes of conserving biodiversity in a manner that is consistent with the exercise of their normal functions such as policy and decision-making. 'Conserving biodiversity' may include enhancing, restoring, or protecting a species population or a habitat

N.1.13 Bats and Roost Sites

All bat species and their roosts are legally protected in the UK. All bats are listed as European protected species of animals in the European Union's Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as the Habitats Directive.

This Directive is implemented in the UK under the Wildlife and Countryside Act 1981 (Schedule 5). They are also included in Schedule 2 of the Conservation (Natural Habitats, &c) Regulations 1994, and The Countryside and Rights of Way Act 2000. The Acts and Regulations include provisions making it illegal to:

- Recklessly or deliberately kill, injure or capture (take) bats.
- Recklessly or deliberately disturb bats (whether in a roost or not)
- Damage, destroy or obstruct access to bat roosts

A Bat roost is interpreted as 'any structure or place which is used for shelter or protection', whether or not bats are present at the time. If proposed work is likely to destroy or disturb bats or their roosts the appropriate Statutory Nature Conservation Organisation (SNCO) MUST be notified and allowed a reasonable time to advise on whether the proposed work should be carried out and, if so, the method to be used.

N. 2 The National Context

N. 2.1 The Climate Change Act 2008 (2050 Target Amendment) Order 2019 – amends the 2008 Climate Change Act to commit the UK to a net zero emissions target by 2050. Environment Bill 2020 – enhances legal protections for existing trees and woodlands.

N.2.2 Defra's 25 Year Environment Plan – recognises importance of ecosystem services derived from trees, sets out ambition to protect and plant more trees, and highlights the natural capital approach as a tool to help make key choices and long-term decisions about the environment.

N.2.3 National Planning Policy Framework (NPPF) 17 - to be read in conjunction with the 25 Year Environment Plan. The NPPF recognises the importance of trees and requires that planning authorities have plans in place to enhance the natural and local environment.

N.2.3 The England Tree Strategy which is currently being drafted relates to the government's targets for planting trees and woodlands. Woodland, which includes plantation forests, more natural forested areas, and lower density or smaller stands of trees, accounts for 13.1¹% of the total UK land area. Land covered by forestry has increased steadily by 4.4% from 3.05 million hectares in 2009 to 3.19 million hectares in 2019. Scotland has 46% of the UK's woodlands, England has 41%, Wales has 10% and Northern Ireland has 4%². As a percentage of the total land area, woodlands account for:

- 10% of England

¹ <https://www.forestryresearch.gov.uk/tools-and-resources/statistics/forestry-statistics/> Table 1.2 Woodland area in the United Kingdom

² <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/woodlandnaturalcapitalaccountsuk/2020#size-of-the-area-covered-by-woodland>

- 15% of Wales
- 18% of Scotland
- 8% of Northern Ireland

N.2.3.1 In addition to woodland areas, which make up the figures above, the [Forestry Commission estimates](#) there are 390,000 hectares of small woods in Great Britain (non-national forest inventory wooded areas of over 0.1 hectare in extent). There are also 255,000 hectares of groups of trees (that is, clusters and linear tree features of less than 0.1 hectare in extent) and an estimated total canopy cover of 97,000 hectares from lone trees in Great Britain accounting for 2.6% of the 'wooded area'. For Great Britain, that is a total woodland area of 3,719,000 hectares.

N.2.3.2 Forestry is a devolved matter and so the government is working with the devolved administrations in Scotland, Wales and Northern Ireland to determine how best to achieve the UK manifesto commitment to plant 30,000ha of woodland per annum.

N.2.3.4 The requirement to plant 30,000ha (116 square miles) of woodland per year in the UK up to 2050 is a recommendation made by the Committee on Climate Change to assist in the Government's commitment to reduce greenhouse gas emissions to Net Zero Carbon by 2050. The recent budget held in March 2020 included a commitment to plant around 30,000 hectares of trees over the next five years in England³. The technical paper released alongside the England Tree Strategy indicates that the Government estimates '*that planting 10,000 hectares per year by 2025 is the highest possible planting rate for conventional forestry (i.e. excluding planting energy crops) in England*'.⁴ Whilst the draft of the strategy does not include any tree planting targets for England, it seems likely that England's future apportionment for the targeted 30,000ha of new planting per year will be somewhere between one fifth and one third of the total UK requirement (i.e. 6,000-10,000ha per annum). The remaining four fifths to two thirds of the committed planting will therefore be delivered in Scotland, Wales and Northern Ireland.

N.2.3.5 Recent tree planting across the UK has averaged less than 15,000 hectares per year since 2002 and for eight of the past 18 years been less than 10,000 ha⁵. In recent years 10-15% of total UK planting has taken place in England, with the vast majority happening in Scotland⁶.

N.2.4 The Local Context

N.2.4.1 South Derbyshire has slightly less woodland and wooded areas than the UK and England average⁷. This figure is based solely on woodland within the national forest inventory (NFI) which is a national inventory of woodlands over 0.5ha and so could exclude some smaller areas of tree cover. However, based on the NFI, 9.3% of the District is covered in woodland. Woodland cover is also comparatively low in many of the surrounding districts and boroughs and reflects the lowland character of the broader area, the urban nature of many of the districts and the competing land uses facing local areas.

N.2.4.2 The headline figure of 9.3% tree cover in South Derbyshire hides a clear difference in tree and woodland cover within the District. This is best shown visually in the map below, but the differences shown on the map are attributable to the southern half of the District falling within the National Forest, which over the past 30 years or so has tripled tree cover within its operational area⁸.

The Council shall comply with all current legislation and good practice guidance in managing its trees, woodlands, hedgerows, and tree-related habitats

Appendix C

S.1 Summary of Capital Asset Value for Amenity Trees (CAVAT)

- S.1.1 At present trees only show on a local authority's balance sheets as a drain on their financial resources. There is no way either to account for their contribution to the public good, or to measure how the value of the tree stock may change as a result of management.
- S.1.2 To remedy this, a system has been adopted by many Local Authorities to place an asset value on the public tree stock. It is called Capital Asset Value for Amenity Trees (CAVAT).
- S.1.3 There are two variants of the method, one designed to allow the stock as a whole to be managed in relation to its value, and the second intended for cases relating to individual trees, or groups, where a more detailed consideration is necessary.
- S.1.4 The basis of both methods is the American 'trunk formula' method. The value calculated is in effect a notional replacement value. In CAVAT this has been revised to reflect the public value of the tree. A basic value calculated from the trunk diameter is modified by its functionality, in broad terms defined as how complete the crown is relative to what would be expected for a tree with the same trunk diameter, and in what functional condition it is found to be. A range of other factors, reflecting the Helliwell system and recent research are also taken into account in the case of individual trees.
- S.1.5 It has been developed and tested by a user group formed from London Tree Officer Association (LTOA). Tree Officers using this system found it to be robust and reliable. As a result of the testing the methods have evolved in particular to include consideration of life expectancy. The social value of trees are very important, therefore included in the CAVAT system a factor relating to population density called the Community Tree index (CTI).
- S.1.6 The Community Tree Index has been included in the CAVAT calculations on the basis that the more people who see and experience a tree the more valuable it is to the community in which it stands. Recently the concept of valuation of ecosystem services and tree valuation in particular has been gaining ground among tree management professionals. The CTI is a pragmatic method of introducing the social importance of trees into the calculations.
- S.1.7 The CAVAT variant used for individual cases, including those relating to subsidence, is the 'Full' method. This has four stages. In the first a basic value for the tree is calculated from its trunk diameter. This is then converted to a functional value by consideration of the crown area. Special factors which may increase or decrease the value of the tree are then taken into account to produce an adjusted functional value.
- S.1.8 The final value is then calculated by adding consideration of life expectancy, using the Safe Life Expectancy (SLE) method. The method has a particular use in relation to root related subsidence claims because it allows a robust ranking of tree value to be established and hence lower value trees can be objectively separated from medium or high value trees.
- S.1.9 While the method does rely on judgement and as a result there is a capacity for disagreement, the method is designed specifically to minimise the effect of such potential disagreements by ensuring that the judgements that have to be made are ones on which a majority of arboriculturists with suitable training are likely to agree.
- S.1.10 There is a need for familiarisation training in order to use the method. However, this is not unduly onerous, and it is anticipated that it will be made readily available through local tree

officer groups. Once tree officers are confident in the use of CAVAT it will allow the Council to specify the levels of evidence required dependent on the value of the implicated tree.

Five steps and sets of key variables:

1. Basic value/ unit value x size;
2. CTI value/ location, in terms of population and use, and accessibility;
3. Functional value/ functional status;
4. Adjusted value/ amenity factors, both positive and negative; and
5. Full value/ safe life expectancy.

Appendix D

T.1 Links To Useful Websites

DCLG–Trees in Towns II	www.communities.gov.uk/publications/planningandbuilding/treesintownsii
Arboricultural Association	www.trees.org.uk
Forestry Commission	www.forestry.gov.uk
The Tree Council	www.treecouncil.org.uk
Arboricultural Information Exchange	www.aie.org.uk
Trees for Cities	www.treesforcities.org
Woodland Trust & Ancient Tree Forum	www.woodland-trust.org.uk
British Standards Institute	www.standardsuk.com
The National Forest Company	www.nationalforest.org
Natural England	www.naturalengland.org.uk
Derbyshire Wildlife Trust	www.derbyshirewt.org.uk
DEFRA	www.defra.gov.uk
Barcham Trees	www.barcham.co.uk
Bat Conservation Trust	www.bats.org.uk
Plantlife	www.plantlife.org.uk
Royal Forestry Society (RFS)	www.rfs.org.uk
Biodiversity Action Plans	www.ukbap
Butterfly Conservation	www.butterfly-conservation.org