



SPECIFICATION OF SERVICES

FOR

ARBORICULTURAL MAINTENANCE SERVICES CONTRACT (TREE WORKS)

[2022-2025]

Date: April 2022



INVESTORS
IN PEOPLE | Silver



Specification of Services

1.0 Introduction

- 1.1 The Havebury Housing Partnership ('Havebury') [the Employer] is a Registered Social Landlord (RSL), responsible for managing over 7,800 homes for both affordable rent and shared ownership across the east of England. This includes working with local authorities, agencies and other housing associations to meet the local housing need.
- 1.2 A significant part of this overall responsibility includes proactive management and maintenance of estate grounds, woodlands, tree belts, ponds and greenspaces that fall within the Employers land occupancy jurisdiction. Occasionally trees located in tenant's gardens may require attention, subject to the conditions detailed in Havebury's Tree Policy. This document is likely to be updated during the course of the contract.

Havebury has 923 Schemes, 723 of which are residential Schemes including supported housing. The remaining 200 are all schemes for garages.

At present, 420 residential Schemes and 8 garage Schemes have trees within their locale.

The geographical spread of the Havebury catchment area covers the counties of Essex, Norfolk, Suffolk and Cambridgeshire; specifically, the Local Authority areas of:

Local Authority
Babergh
West Suffolk
Suffolk Coastal
Mid Suffolk
South Norfolk
Breckland
Braintree
Huntingdonshire
East Cambridgeshire
South Cambridgeshire

The current breakdown of the Havebury housing stock was as follows:

Property Type	No.	% of stock
Bedsit	167	2.08%
Bungalow	1026	12.80%
House	4196	52.35%
Flat	2568	32.04%
Maisonette	59	0.74%

- 1.3 Havebury recently undertook a tree survey of all tree stock that stands on the Havebury managed land, which has recorded a total of 4,078 individual trees and 86 groups of trees within noted Havebury grounds. The survey has generated a programme of reactive and appropriate tree pruning and management works in order to ensure that the Employers' tree stock remains in a suitable condition of physiological health and structural integrity.

1.4 On this basis, the primary Service under this Contract is to –

- **Provide tree maintenance services including, but not limited to:**
 - **Reactive and planned tree pruning works**
 - **Planting of new and replacement trees**
 - **Tree felling and stump removal**
 - **24-hour emergency call-out service**
 - **Various other related tree maintenance services as and when required**

1.5 **Current Status:**

Between May 2019 and March 2020 Havebury undertook a tree survey of most of our tree stock. This report generated works recommendations, some of which have been completed, but most remain outstanding.

We are aware of some areas that have not been surveyed yet and some areas that have previously been omitted (most notably the Parkway tree belt of approximately 8700m² of woodland and scrub). Additionally, it is expected that as we expand our property portfolio that we will acquire more trees.

1.6 **Long-Term Plan and Goals:**

Year 1: Our first step is to complete the works on the survey recommendations and priorities that we have currently.

Year 2: Our second step is to re-survey all our tree stock (including previously omitted areas and new sites) with a certified risk assessment that will inform an inspection cycle. This survey will be undertaken with a management approach, rather than a purely health and safety approach. It is therefore anticipated that the second year of works may be slightly higher than Year 1.

Years 3+: Assuming that inspection cycles will be based on a High, Medium, and Low risk trees, with High risk trees surveyed every year, Medium risk Trees surveyed every two years, and Low risk trees surveyed every three years, this will create a six year cycle of ongoing inspections that will generate works. While it is uncertain that this phase will appear exactly as described, its existence does demonstrate our long-term commitment to this need.

It is further anticipated that with consistent work, the need and cost for tree works will initially fall and with the savings that this presents, that we will begin to undertake re-planting works and the like to improve amenity, invest in carbon offsetting, etc.

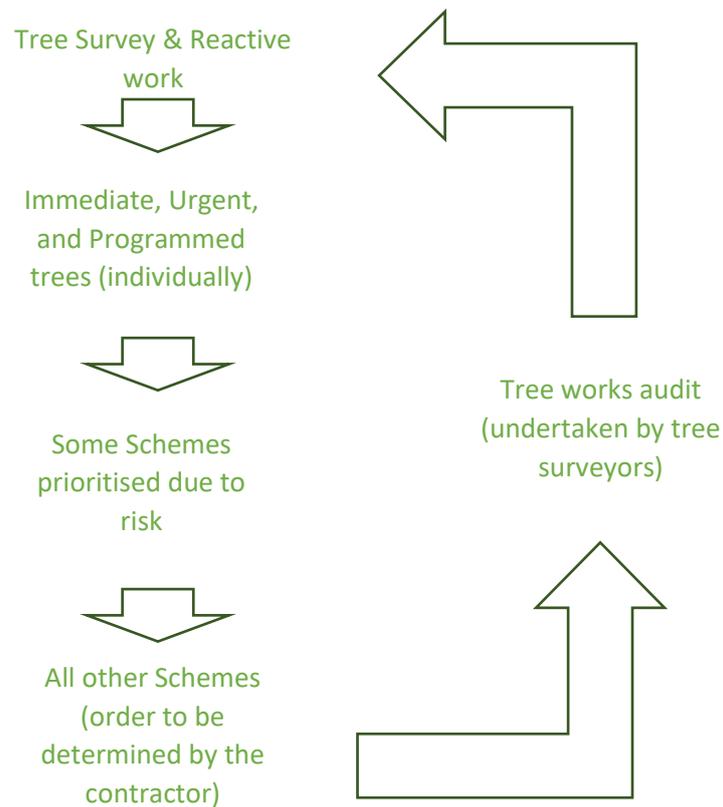
The tree inspection surveys will be undertaken by a separate contractor and thus avoiding potential for any conflict of interest.

1.7 **Ordering Tree Works:**

All Havebury land is organised in parcels of land called Schemes. At present there are 923 Schemes, 428 have trees surveyed within them.

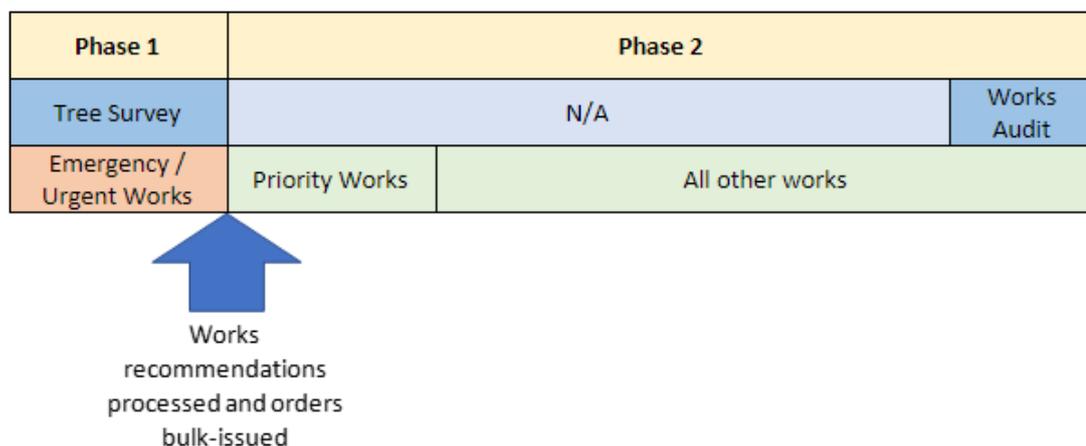
In order to mesh with our Operational and Finance systems, tree works will be ordered and must be invoiced by Scheme.

1.8 We anticipate the yearly tree work cycle to occur as follows:



1.9 It is inevitable that some sites must be prioritised due to recommended timescales or through a tenant or public raising awareness of an issue, but in general the order of tree works across our land is relatively arbitrary, and it is our intention to be flexible in how we issue the works orders to ensure works are completed as cost-effectively and as efficiently as possible, with due regard to safety.

Bulk Tree Works and Discounted Works (TD010) In order to encourage more efficiencies, to save time, costs, and fuel, and to reflect other reduced overheads associated with bulk order of tree works, Havebury has included an optional Tree Works Discount code. This discount will apply to any order with more than one tree that requires work. As each order will relate to a single Scheme, two Schemes immediately adjacent each other with one tree that requires work within each will not qualify for this discount. It is anticipated and hoped that the annual cycle of tree works will be in the following pattern:



Phase 1: While the tree survey is being undertaken, we recognise that some trees will need work urgently. Due to the nature of urgent or emergency works they do not qualify for any discount, whether they are ordered at this time or any other.

Bulk Order Processed: Upon completion of that year’s survey, using bespoke software the recommendations will be applied against the SOR and orders and costs will be produced. This will result in one order per Scheme, with corresponding maps and location data to assist with work programming.

Phase 2: Using the order information, works can be planned for the remainder of the annual cycle. Some Schemes/orders will have to be prioritised in accordance with the recommended timescales on the report. Non-priority Schemes/orders can be completed alongside the priority Schemes or can be completed later.

1.10 The Contractor shall, in providing these Services, proactively assist the Employer to achieve their corporate vision initiative by providing the Service in keeping with the Havebury key values by at all times being:

- **Respecting**
- **Engaging**
- **Fair**

1.11 In addition the Contractor shall, in providing the Services, proactively assist the Employer to achieve the Havebury corporate aims by enabling the Service to contribute to the delivery of the following key objectives:

- **Being a great landlord**
- **Developing new affordable homes**
- **Investing in existing homes and communities**
- **Playing our part in addressing climate change**
- **Building a great team**
- **Remaining a thriving business**

1.12 The Contractor's contribution to these objectives will be measured through the Key Performance Indicators that will be agreed and established jointly with the Contractor prior to delivery of the Service and managed by the Employer's Contract Administrator ('CA') through the lifetime of the Contract.

2.0 General Conditions – Operations

2.1 Timing of Operations

2.1.1 It shall be the responsibility of the Contractor to be the environmental advocate for the tree and its vicinity ensuring that all appropriate legislation is adhered to during the execution of the Works, including checking for TPO's and applying to local authorities for permission prior to commencement and to ensure ecological considerations are observed when working within conservation areas or when discovering new habitats.

2.1.2 The Contractor shall undertake all operations in an expeditious and timely manner to ensure that the works are completed within the Contract period and as may be defined within the Works Order.

2.1.3 The discovery of any form of protected species, such as a bat, or bat habitat, or another protected species such as active bird's nest, or a badger sett, that has not been accounted for during contract planning, the Contractor shall inform the governing body responsible for its protection and comply with all restrictions and regulations. The Contractor shall inform the Employer within 24 hours by telephone or email.

2.1.4 In such circumstances, the Contractor will make a claim with the Employer to suspend the works. Under no circumstances should any wildlife species protected by statutory legislation be disturbed in order to deliver the Service or fulfil the Works Order.

2.1.5 Routine tree maintenance will not be carried out during the months of March to August, inclusive. When tree or vegetation clearance work has to be undertaken during the nesting season, a pre-work survey will be carried out by a suitably competent person to ensure actively nesting birds are not disturbed.

2.1.6 Additional care and controls should be taken for access and egress to the work site for ground-nesting birds to avoid disturbance or damage to a nesting site. This is also true for retained

trees on site as the removal of adjacent trees or remedial works on a tree may lead to the established nest being abandoned, exposed to the elements or predation. This action is also a breach of the act and therefore could lead to prosecution.

- 2.1.7 If an unexpected habitat is discovered during the works then the Contractor is responsible for dealing with this and must follow the published guidance from the appropriate Statutory Nature Conservation Organisation (SNCO) so as to not damage the habitat further, or seek specific guidance from their telephone help lines.

This also includes the safe removal or treatment of hazardous pests such as hornet nests or brown tail moth.

- 2.1.8 The Contractor shall keep the Employer informed in advance of all occasions when works are to proceed under the Contract. If the use of pesticides is required the Contractor shall inform the Employer a minimum of forty-eight hours and a maximum of seven days prior to each intended application of pesticide and detail the locations to which pesticides are to be applied. The contractor will ensure the application of such is not dangerous or damaging to the surrounding site, to other plant material or to members of the public or property.

The Employer reserves the right to defer or prohibit the pesticide application, or to suspend it if it is in progress, if:

1. the Supplier had not made the Employer aware that pesticide application was in progress, or

2. in the opinion of the Employer the work is likely to cause unnecessary damage.

- 2.1.9 Normal working hours are between 08:00 and 18:00 hours Monday to Friday.

- 2.1.10 The Contractor will not assume that weekend working is permitted and shall seek the explicit permission of the Employer via the CA (which shall not unreasonably be withheld) to work specific weekends or Public Holidays.

- 2.1.11 Unless responding to reactive emergency callout work specifically requested by the Employer or their CA, the Contractor shall not use noisy machinery before 8.00 a.m. and after 6.00 p.m. Monday-Friday, without the prior written permission of the CA. Where works are being undertaken in order to fulfil any form of reactive emergency call-out works, the use of noisy machinery will be kept to the minimum use required in order to make the site safe until works can be completed during normal working hours.

- 2.1.12 The Employer retains the right to prioritise tasks, or to defer or prohibit the Contractor from undertaking work in certain sites at certain times by reason of specific events or circumstances which shall be notified to the Contractor, for example, other contractors working on site, public events or habitat issues associated with protected species that are discovered during the course of any works. Such deferment shall not be financially prejudicial to the Contractor.

2.2 Nuisance

- 2.2.1 The Contractor shall take all necessary measures to minimise nuisance occasioned by the works to occupiers of property adjoining the works and shall comply with any and all reasonable instructions given by the CA in this respect.

2.3 Management of Site

2.3.1 The overall management of the site remains the right of the Employer and any operations may be undertaken within the site at any time, either by the Employer or any other agency acting on the Employer's behalf or under his instructions provided that such operations do not unreasonably conflict with the performance of the works required under the Contract.

2.4 Access to Site for the Contractor

2.4.1 The Contractor shall have free access to the site for the duration of the works unless he is told otherwise by the CA (see also 2.1 Timing of Operations).

2.4.2 During the Contract whenever it is necessary to enter or cross land which is not the Employer's property or land which is in the possession of another party, the Contractor shall be responsible for making his own arrangements for access with that party.

2.4.3 Access to the site shall be by public roads or other agreed access which may be shown on the Contract Drawings or GIS mapping which may be provided. The Contractor shall be responsible for ensuring that his own vehicles and those of suppliers and others employed on the works use only the agreed access.

2.4.4 If the agreed access is other than the carriageway of a public highway then at no time shall the Contractor's vehicles exceed 10 miles per hour when driving along the agreed access and lower speeds shall be appropriate in many situations.

2.5.5 In order to prevent unauthorised vehicular access to site the Contractor shall ensure that where access has been gained (by opening a gate or unlocking a padlock, or by removing a barrier or bollard) the access shall be re-secured immediately behind the Contractor's vehicles using the access.

2.5.6 The Contractor 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 preclude the fouling of public or private roads adjacent to the site. If the Contractor cannot provide the cleaning facility then he shall promptly and unfailingly remove any materials including dirt, mud or debris deposited on the roads or paths by the vehicles entering or leaving the site.

2.6 Access to the Works for the Employer

2.6.1 The Employer and his representatives or nominees shall at all times have access to the works site.

2.6.2 Access to the site shall be granted at all reasonable times to officials from the Local Authority or from any Statutory Nature Conservation Organisation (SNCO) which may have an interest in the works.

2.7 Standard of Work

2.7.1 The whole of the works shall be carried out to achieve the technical and operational requirements of the Specification and Tender documents.

- 2.7.2 The Contractor shall perform the works in a professional manner, to at least the minimum level of qualification required to carry out works in accordance with the principles of current arboricultural best practice BS3998 and as disseminated from time to time by organisations such as [including but not limited to] the Health and Safety Executive (HSE), the Arboricultural Association (AA), the Arboricultural Advisory and Information Service (AAIS), the British Standards Institute (BSI) publications relating to the works operations being carried out, and /or others as may be related and relevant.

2.8 Suspension of Work

- 2.8.1 The Employer reserves the right to suspend the work immediately and send the Contractor off site (but without prejudice to the rights of any party accrued to date) if the Contractor had not made the CA aware in advance that works were planned/ in progress; or, if in the opinion of the CA:

- .1 The works were below the standards required by the specifications contained herein
 - .2 The operatives were ill-equipped to perform the works,
 - .3 The weather was unsuitable
 - .4 The works were being carried out in such a way as to be dangerous or damaging to the site or the general public
 - .5 The materials or work equipment being used for the works were below the standards required and not in keeping with the works order
- There are other extenuating circumstances

- 2.8.2 As stated in 2.1.3 above, the discovery of any protected species, such as a bat or bat habitat, or another protected species such as active bird's nest, or a badger sett that has not been accounted for during contract planning may also result in a suspension of the works. Such a discovery could significantly alter the terms of a contract and result in delays that could extend the time scale for completion by months and possibly years, in which case the Employer and the Contractor shall be required to review the remaining terms of the contract (but without prejudice to the rights of any party accrued to date) to agree a reasonable outcome.

2.9 Before Commencing Work

- 2.9.1 Where the works are in a public place the general public shall be warned by the Contractor of all work by the display of the appropriate warning signs. Guidance on the display of signs shall be sought from Safety at Street Works and Road Works 2013, and/or Chapter 8 of the Traffic Signs Manual "Traffic Safety Measures and Signs for Road Works and Temporary Situations: Part 2: Operations" published by the Department of Transport/ Highways Agency.
- 2.9.2 The Contractor shall be responsible for investigating the location of any potential utility and service provision both under and overground prior to carrying out any works and make all necessary contact with other service providers to ensure compliance to regulations and standards. The Contractor will notify the Employer providing as much advance notice as possible if, for example, cables supplying electricity are to be temporarily disconnected.

- 2.9.3 Where the works are adjacent to a public highway the Contractor shall be responsible for ascertaining and complying with the requirements of the Local Highway Authority (LHA) and police authority as to any regulations, restrictions, directions or instructions concerned with the movement of traffic or pedestrians in and about the works and shall duly inform the CA of such arrangements.
- 2.9.4 Where the works require the closure of a public right of way for health and safety reasons, the Contractor will be responsible for making any and all such arrangements with the LHA prior to the commencement of works. Where such closures are required, the Contractor will duly inform the Employer of any and all arrangements prior to the commencement of works. Appropriate signage, barrier tape etc will be erected in advance to warn public not to park in the area.
- 2.9.5 Where the works are in a public place distant from the public highway and where, in the opinion of the CA, the works shall make the use of a path or route by the general public difficult, inadvisable or impracticable the Contractor shall in advance of the works erect temporary fencing, bunting or some other barrier tape or webbing to prevent access to the danger zone by the general public. The Contractor shall indicate an alternative route for the general public, the CA shall be consulted as to the alternative route proposed by the Contractor.
- 2.9.6 The Contractor shall be responsible for all health and safety arrangements and precautions to prevent access to public rights of way by the general public when obstructed by, for example, fallen trees or limbs, using appropriate methods such as barrier tape, fencing, lighting, watchpersons.
- 2.9.7 Where works are proposed to third party trees, i.e. 'neighbours trees', the contractor will require written confirmation from the tree owner ('the neighbours') that the works are agreed and where necessary, that access is permitted. If works only apply to overhanging branches that can be pruned from within the Havebury's property then permission is not required but the neighbour should be advised in advance and where practicable. The Contractor will keep the CA informed at all times.
- 2.9.8 Where the Contractor, in complying with the requirement of this section 2.9, learns of any associated costs arising in order to fulfil the requirements of the section 2.9, such as costs levied by the relevant LHA for road closures, costs for traffic management provisions [temporary traffic lights etc.], the Contractor will inform the Employer of these costs for the CA approval prior to the commencement of works. Where additional costs are agreed by the CA, costs will be treated as an additional expense on the Works Order and associated billing mechanisms.
- 2.9.9 Where the Contractor fails to comply with the relevant requirements of this section 2.9, the Employer reserves the right for their CA to make-safe any exposed excavations, or other obstructions to public rights of way, by taking whatever measures deemed necessary without prior reference to the Contractor.

- 2.9.10 The CA will confirm by email what actions have been employed and recharge the Contractor the full costs of doing so.
- 2.9.11 The Contractor shall not employ, or cause to be employed in performance of the contract, any person without the necessary qualifications, skill and experience to perform the duties that they are employed to perform.

2.10 Control of Substances Hazardous to Health Regulations

- 2.10.1 The Contractor's attention is brought to the Control of Substances Hazardous to Health (COSHH) Regulations 2002 (as amended), introduced under the Health and Safety at Work Act 1974 9 (HaSaWA), particularly those provisions relating to pesticides, herbicides, oils, fuels and lubricants. (See also 2.11 Food and Environment Protection Act).
- 2.10.2 Once the Contractor has selected the most appropriate product or formulation for a particular problem, from the range of material available, then a Control of Substances Hazardous to Health (COSHH) Assessment must be undertaken.
- 2.10.3 The Contractor will assess all substances that they seek to use prior to fulfilling the Services, be they:
1. pesticides,
 2. herbicides,
 2. non-pesticide or non-herbicide products,
 3. oils, fuels and lubricants, or
 4. miscellaneous items (such as bleach or disinfectants).
- 2.10.4 In addition to products or formulations that may be applied to treat a particular problem the COSHH Assessments will also include substances that arise from the Contractor's activity that may be hazardous to health, for example dust, fungal spores, pollens or any other irritants [such as London plane seeds and leaf hairs] etc. In all cases the Contractor shall take the relevant steps as may be necessary in order to minimise as far as reasonably practicable any risks identified as a result of the COSHH assessment.

2.11 Food and Environment Protection Act

- 2.11.1 The Food and Environmental Protection Act (FEPA) and the Control of Pesticides Regulations [COPR) impose a number of obligations upon those applying pesticides, and the Contractor shall be aware of those obligations if he applies pesticides for the Employer as a part of the Contract. The Contractor shall, in fulfilling the Service, comply with all associated statutory requirements as imposed and all associated regulations and best practice guidance as may be appropriate at the time or superseded by more recent and up-to-date guidance as relevant. The Contractor will inform the Employer/CA of such changes

2.12 Lifting Operations and Lifting Equipment Regulations

- 2.12.1 In order to comply with the detailed requirements of the Lifting Operations and Lifting Equipment Regulations 1998, the Contractor and their operatives shall at all times comply with the requirements or the Regulations and follow any and all associated industry best

practice recommendations as may be appropriate at the time or superseded by more recent and up-to-date guidance as relevant.

2.12.2 The removal of heavy or long limbs or branches, or the dismantling of a tree, might involve the use of a lowering rope system or a rigging system operated by ground-staff to remove the trunk, limb or branch either in sections or as a whole.

2.12.3 Ground-staff shall be skilled and experienced in the use of a lowering rope system or rigging system and shall take all necessary precautions to protect trees being used as part of that system to regulate the lowering of slung limbs. For the purposes of this section 2.12, the minimum ratio of climber to ground staff is to be 1:1 but, exceptionally, can go to 2:1 with two climbers in one crown or in immediately adjacent crowns. Under no circumstances can climbers work alone and without the express attention of a dedicated grounds-person.

2.13 Communication

2.13.1 The Contractor shall ensure that there is an effective means of communication established between climber and the ground-staff to cover all eventualities which may arise during the performance of the works required under the Contract.

2.14 Work on or Alongside the Public Highway

2.14.1 The Contractor shall not cause any unnecessary obstruction or interference with traffic along the public highway. The Contractor shall keep open to the satisfaction of the CA all rights of way or other footpaths on and about the works, unless works are being carried out in accordance with section 2.9 above.

2.15 The Statutory Undertakers' Apparatus

2.15.1 Notwithstanding any information which the CA may make available to the Contractor, either verbally or by the production of plans purporting to show the position of the statutory undertakers' apparatus, it shall be the sole responsibility of the Contractor to satisfy himself by his own independent observations and inquiries as to any omission from or the accuracy or otherwise of the information provided.

2.15.2 Any damage to the said statutory undertakers' apparatus caused by the Contractor in the course or in consequence of the works shall be made good at the Contractor's own expense.

2.15.3 The Contractor shall at his own expense obey all regulations and Codes of Practice required or recommended by the said statutory undertakers in relation to works near their apparatus.

2.15.4 Where it is necessary to arrange for the temporary disconnection of a service it shall be the Contractor's responsibility at his own expense to ensure that all necessary arrangements are made in advance with the statutory undertakers and shall inform the CA of such arrangements.

2.16 Management of Arisings

2.16.1 Cleaning up and removal of arisings

2.16.1.1 The working area is to be left clean and tidy when the Contractor goes off site at the completion of the day's work. The Contractor shall keep all public highways and public rights

of way clear of obstructions to the satisfaction of the local Highway Authority and the Employer.

- .2 The Contractor shall be responsible for the disposal of all the arisings from the works at his own expense (see also 2.16.2 Provision of tip site) and shall always assume that arisings are to be removed from site unless, and only when, otherwise stated in any relevant Works Order.
- .3 If so stated in the Works Order, the Employer may from time to time require the Contractor to convert the arisings from the works (or a part thereof) into produce, and deliver that produce to a place as specified by the Employer, or their CA in the Works Order and associated instructions [verbal or written]. For example:
 1. the CA may instruct logwood to be used to create vandal resistant habitat piles on site, or
 2. the CA may instruct that smaller stem, limb, branch and twig wood suitable for processing through a wood-chipper shall be chipped on site by the Contractor and the chips to be spread at the CA's direction and levelled to no thicker than 50mm as a mulch as directed by the CA, or
 3. disposed of in some other way as stated in the Works Order, covering shrub beds or forming footpaths through tree belts for example.
- .4 The Contractor shall remove all arisings from site as soon as practicable after the arisings become available. Arisings may only be retained on site for later removal, for example in instance where large scale works span several working days, with the express consent of the CA. In instances where arisings are to be retained on site for later removal, the Contractor shall not arrange for the collection of arisings from site to take place at weekends or on Public Holidays without the express permission of the CA in keeping with sections 2.16 and 2.17.
- .5 If the required method for the disposal of arisings by the Contractor shall be different to that given above then the required method shall be stated in the Works Order as appropriate.
- .6 The Contractor shall be responsible for all making-safe and operational arrangements for fencing, guarding, covering or lighting as necessary any temporary excavations (for example new tree pits or excavations caused by the removal of a tree stump). If the Contractor has gone off site then the CA reserves the right to make any such exposed excavations or other obstructions safe by taking whatever measures he deems necessary without prior reference to the Contractor.
- .7 The CA will confirm by email what actions have been employed and may recharge the Contractor the full costs of doing so.
- .8 On completion of the Works Order the Contractor shall remove all structures used in connection with the works, clean up and leave the site in a tidy condition and make good any damage in accordance with the technical specifications referred to in Part 6.0 – Reinstatement.

2.16.2 Provision of tip site

- .1 The Contractor's attention is drawn to the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991 introduced under the CONTROL OF POLLUTION (AMENDMENT) ACT 1989. Controlled waste is defined in those Regulations as "household, industrial or commercial waste or any such waste". Under those Regulations it shall be an offence for the Contractor to carry controlled waste to tip unless the Contractor is registered by the Waste Regulation Authority.
- .2 Copies of Waste Carriers Licence to be provided to the Employer prior to contract and are to be updated upon each renewal.
- .3 The Contractor shall be responsible for the provision of an authorised tipping facility and for ensuring that all debris from the works is removed thereto. Such facility shall be off site and no unauthorised tipping shall be carried out by the Contractor within the contract area or in any other place.
- .4 All charges, fees, transport and other expenses in connection with tipping shall be borne by the Contractor.

2.16.3 Re-cycling schemes

- .1 The Contractor may, from time to time, be required to participate in the Employer's re-cycling schemes (such as annual Christmas tree disposal schemes). Any such requirement shall be stated in the Works Order and priced in accordance with the agreed Schedule of Rates.

2.16.4 After Completion of the Work

- .1 Immediately after completion of the works the Contractor shall remove all un-used materials, all debris and the temporary fencing, bunting or other barrier tape or webbing from outside the completed works.
- .2 The agreed access and the site working area shall be reinstated by the Contractor according to the technical specifications referred to in section 6 - Reinstatement.

2.17 Defective Work

- 2.17.1 If it is the reasonable opinion of the CA that the Contractor has failed to perform the works necessary to meet the requirements of the Contract the CA shall give a written notice to the Contractor to comply with the requirements of the notice within a stated time at the Contractor's own expense. Such a notice may be on a Rectification Notice or in a letter to the Contractor from the CA which may be emailed, posted, hand delivered or otherwise transmitted to the Contractor.

2.17.2 In the opinion of the Employer defective work may fall into one of three categories:

1. defective work requiring immediate corrective attention, or
2. defective work requiring urgent corrective attention, generally the following working day, or

3. defective work requiring corrective attention, generally during the course of the next programmed maintenance visit or at some other mutually agreed time within a reasonable period as stipulated by the CA.

2.17.3 **IMMEDIATE:** If it is the reasonable opinion of the CA that the defective works require immediate corrective action because the defective works constitute a potential hazard or risk to the public the Employer retains the right to:

1. instruct the Contractor to return to site immediately to correct the defective works at the Contractor's own expense, or
2. instruct an agency to go to the site to take whatever steps may be reasonably required to correct the defective works or to make the site safe if the Contractor is unable or unwilling to make the defect safe within the specified timescale. The full costs of such action may be deducted from any monies due to the Contractor.

2.17.4 **URGENT:** If it is the reasonable opinion of the CA that the defective works require urgent corrective action, for example because the defective works do not meet the CA's specifications and are potentially injurious to the public, the tree or property, the Employer retains the right to:

1. instruct the Contractor to return to site the following working day or at some other mutually agreed time within a reasonable period to correct the defective works at the Contractor's own expense, or
2. instruct an agency to go to the site to take whatever steps may be reasonably required to correct the defective works if the Contractor is unable or unwilling to correct the defect. The full costs of such action shall be deducted from any monies due to the Contractor.

2.17.5 **PROGRAMMED:** If it is the reasonable opinion of the CA that the defective works require corrective action, for example because the defective works do not meet the CA's specifications, the Employer retains the right to:

1. instruct the Contractor to return to site, generally during the course of the next programmed maintenance visit or at some other mutually agreed time within a reasonable period as stipulated by the CA to correct the defective works at the Contractor's own expense, or
2. instruct an agency to go to the site to take whatever steps may be reasonably required to correct the defective works if the Contractor is unable or unwilling to correct the defect. The full costs of such action shall be deducted from any monies due to the Contractor.

3.0 DEFAULT IN PERFORMANCE

RECTIFICATION NOTICE

- 3.1.1 If at any time the Service Provider has failed to perform any or all of the Services in accordance with the Contract and agreed programme, the CA shall issue in writing a Rectification Notice.
- 3.1.2 The Rectification Notice shall identify the failure, omission, default or matter giving rise to such failure and the period allowed in which to remedy the failure pursuant to clause 3.1.3.
- 3.1.3 The period allowed in which to remedy the failure shall commence on receipt by the Service Provider of the Rectification Notice and the Service Provider shall carry out whatever works are necessary to effectively remedy the failure detailed on each Rectification Notice within 2 working days, unless the Rectification Notice states a greater number of working days for remedy of the failure.
- 3.1.4 The Service Provider shall not incur any amendment or a reduced payment from the monthly account statement if he fully complies with the Rectification Notice.
- 3.1.5 The Service Provider shall inform the CA of what actions have been taken to resolve failure(s) detailed on each Rectification Notice at the monthly review meeting.
- 3.1.6 The Service Provider shall provide when applicable sufficient evidence, including appropriate use of photographic evidence, to suitably demonstrate resolution of the failure.

3.2 FAILURE NOTICE

- 3.2.1 If the Service Provider fails to comply with a Rectification Notice, then the CA may issue in writing a Failure Notice specifying the Service Provider's failure to comply with the Contract requirements.
- 3.2.2 The Failure Notice shall identify the failure, omission, default or matter giving rise to such failure and indicate whether:
 - .1 The Works will/will not be completed by the Service Provider within timescale stated on the notice.
 - .2 The Works will be completed by others directly employed by The Employer.
- 3.2.3 The issue of a Failure Notice shall entitle the CA to amend and deduct payments from the monthly account statement for the period and value of the services not carried out and recover from the Service Provider all or any of the following:
 - .1 The additional cost of making alternative arrangements and employing others to undertake the Works not completed by the Service Provider in compliance with each Rectification Notice.
 - .2 An administration fee of 15% of the final cost of making alternative arrangements.
 - .3 Any direct, indirect and consequential loss suffered as a result of the Service Provider's failure to comply with the Rectification Notice.
- 3.2.3 The CA reserves the right to invoke all or any aspect of the default in performance procedure or to terminate the Contract as per the contract conditions, depending on the seriousness of the failure to perform the Services.

3.3 Auditing

- 3.3.1 The Employer or the Employers CA on their behalf, requires the Contractor to supply copies of current up-to-date documentation such as copies of staff qualifications, insurance certificates, policies, method statements, risk assessments, training etc prior to commencement of contract and during the contract term upon request, at renewal dates or at times of staff turnover. Where such requests are made to the Contractor, the relevant requested documentation shall be supplied to the Employer, or to the CA on their behalf, within 21 days of the date the request was made. Where such requests are not met by the Contractor within the 21-day time frame, the Employer, or the CA, may treat this as a default on the Contract requirements and suspend works until such requests are complied with and fulfilled.
- 3.3.2 The Employer may, from time to time, conduct an audit of works completed by the Contractor to ensure compliance with the terms, conditions and specifications within the Contract documentation. Any defective or sub-standard works found by the Employer will be processed in accordance with 3.0 above.

4.0 General Conditions - Property, Work Equipment And Materials

4.1 Employer's Property

- 4.1.1 In addition to the tree to be worked upon the Employer may make some specific property (such as work equipment) available to the Contractor for the duration or part duration of the Contract.
- 4.1.2 The Employer's property is not to be used by the Contractor for any purpose other than the required works without the express written permission of the Employer. Such permission shall not normally be granted.
- 4.1.3 The Contractor guarantees the due return of all property issued to the Contractor and shall be responsible to the full value of such property, to be assessed by the Employer, for all loss or damage other than as ordered by the CA from whatever cause while in the possession or control of the Contractor, his servants or agents.
- 4.1.4 When directed by the CA the Contractor shall at his own expense return all the Employer's property in his possession to the Employer or to one of the Employer's depots as directed by the CA.

4.2 Damage to the Employer's and/or other Third-Party property

- 4.2.1 The Contractor shall be held responsible for any damage to property, soft or hard landscape or to highways and highway furniture caused by their acts, omissions or by negligence. The Employer reserves the right to:
1. Instruct the Contractor to repair damage so caused or replace damaged items to the CA's specification using the appropriate skilled labour or a skilled contractor at the Contractor's own expense, or

2. Effect any necessary repair or replacement work to the CA's specification using any agency; the full costs of such action to be deducted from any monies due to the Contractor, or
 3. Immediately advise the appropriate agency, authority, company or undertaker of the damage caused by the Contractor and to furnish that agency authority company or undertaker with such information as it may require to undertake the necessary repair or replacement work to its own satisfaction and to enable it to recharge the Contractor the full costs of such repair or replacement work taking photographic evidence of damage pre and post repair.
- 4.2.2 If a tree or shrub becomes damaged by the Contractor all bark scrapes shall be cleaned and tidied and amelioration of the damage shall be agreed with the CA and carried out to their satisfaction. If damage to any tree, shrub or hedge should result in its death, poor health or serious disfigurement then it shall be removed and replaced at the Contractor's expense and as the CA shall direct. Replacement of shrubs or hedging shall be of sufficient numbers to give the same density of cover as previously existed.
- 4.2.3 If damage to a mature tree should result in its death or severe disfigurement or if damage to a tree's root system should give rise to reasonable fears for the tree's stability the CA shall make arrangement for the assessment of the value of the tree, such as evaluation by a third party or the Amenity Valuation of Trees and Woodlands [Helliwell system] as advocated by the Arboricultural Association, CAVAT, as advocated by the London Tree Officers Association, or CTLA, the methodology advocated by the Councils of Tree and Landscape Appraisers, and the Contractor shall re-imburse the value of the tree to the Employer by re-planting juvenile trees to an equal value using a specialist nursery or supplier of semi-mature trees. Location to be instructed by the Employer.

4.3 Work Equipment

- 4.3.1 In general the Contractor shall be required at his own expense to supply all the plant, machinery, tools and staff that may be required for the proper completion of the Contract to the Employer's specifications contained herein.
- 4.3.2 The Contractor's attention is drawn to the AFAG (Arboriculture and Forestry Advisory Group) Safety Guides, and all works under these Conditions must accord with the published requirements of AFAG or other relevant best practice guides as may be in publication at the time.
- 4.3.3 The Contractor shall not use climbing irons or spikes to assist in the execution of any pruning or climbing operations. Other safe working methods are to be employed for the continued health of trees. The Contractor may use such work equipment for felling works of identified trees.
- 4.3.4 The Contractor shall check all work equipment, plant and vehicles for defects before commencing work each day. Any defects shall be corrected by the Contractor before commencement of work on the Employer's site.

4.3.5 During certain work operations, the CA may allow the Contractor's work equipment that they do not wish to remove from site during the work to be stored at the Employer's depots or hard standings. The Contractor at his own expense shall be responsible for all the costs of delivery to and collection from those depots or hard standings of such work equipment. The Employer shall not be liable for any damage to the Contractor's work equipment or such work equipment on hire or leased to the Contractor whilst at the Employer's depots or hard standings.

4.4 Use of Work Equipment

4.4.1 Work equipment, such as brushwood chippers, ground anchors, stump grinders and winches are only to be used by skilled and experienced operatives who are fully trained and conversant with both the operation of the equipment and the use to which the equipment is being put.

4.4.2 All work equipment used by the Contractor, together with the appropriate PPE and safety equipment, shall be used in a professional workmanlike manner and in accordance with appropriate regulatory or statutory requirements.

4.4.3 The Contractor shall ensure that work equipment which is being used be kept well maintained and adjusted as appropriate throughout the day.

4.4.4 The Contractor shall maintain regular work equipment, plant and vehicular servicing and maintenance.

4.5 Pruning Tools

4.5.1 Pruning may be effected with hand tools or complex machinery, material may be removed in sections to take account of adjacent hazards, arisings may then be allowed to fall to the ground, or may be guided to the ground by hand or by lowering rope.

4.5.2 The Employer has a general presumption in favour of the use of handsaws and against the use of chainsaws to make final pruning cuts of less than 50mm in diameter. Where a handsaw, bow saw or secateurs could be used to remove growth then the Employer shall require that secateurs be used in preference.

4.5.3 Pruning tools shall be kept well maintained and sharp throughout the day.

chainsaw

1. If a chainsaw is to be used to make a final pruning cut then care shall be taken not to damage the bark or the cambium of the tree by bruising, rupturing or burning.
2. Chainsaws are not to be used above the operative's chest height when the operative is standing upon the ground.
3. Chainsaws are not to be carried into a tree's crown by the climber but are to be passed up to them, at their request, on a tool line.

handsaw

1. When using a handsaw in the tree's crown the operator must take care not to damage the bark of any part of the tree that shall remain after the works are completed.
2. When a handsaw is used to make a final pruning cut for aesthetic reasons then the operation shall be performed in one continuous operation to give a smooth final cut wound which presents the minimum surface area to the open air commensurate with the size of limb or branch being removed.

bow saw

1. When a bow saw has to be used then the operator should take care not to damage the bark of the main stem by bruising or rupturing.

secateurs

1. When used to make a final pruning cut secateurs shall be of the bypass / 'parrot beak' type – anvil type secateurs shall not be used. The blade shall be sharp and correctly set; care shall be taken not to rupture, bruise, cut or lift any tissue that shall remain after the works are completed.

other pruning tools

1. The use of other pruning tools, such as pole saws, shall comply with the general principles in this clause, namely that they shall be kept well maintained and sharp throughout the day, their teeth shall be well-set and their blades well tensioned as appropriate.

5.0 Specifications

5.1 Definitions

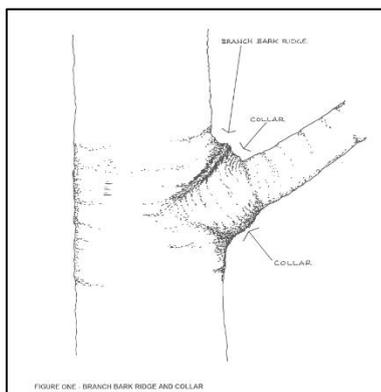
5.1.1 For the purposes of these Conditions the following definitions apply:

.1 **arisings**

those things that occur as a result of the works (see also debris and produce)

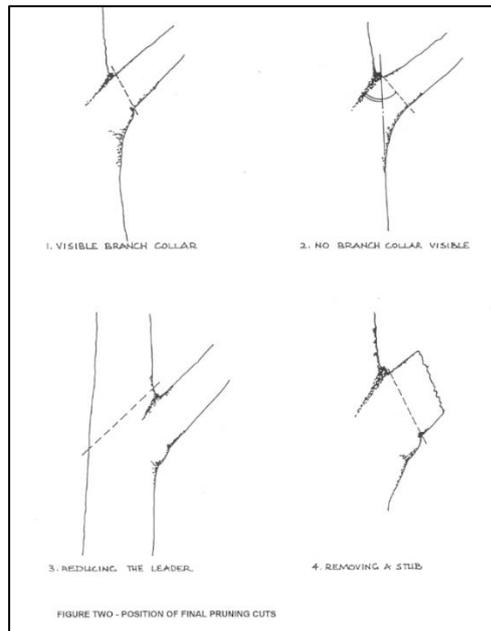
.2 **branch bark ridge**

a fairly reliable external feature on the main stem or parent branch to the upper side of a branch or secondary branch, a ridge of woody tissue which separates the tissues of the branch or secondary branch from those of the main stem or parent branch (see Figure One)



- .3 **branch collar**
a less reliable external feature usually restricted to the lower side of the base of a branch at its point of attachment to a parent stem or trunk, a thickening of tissues which indicates the separation between branch and stem (see Figure One)
- .4 **branches**
the secondary sub-structure based upon the framework of limbs
- .5 **cambium**
the layer of actively dividing cells between inner bark and wood
- .6 **canopy**
the complete outer visual surface of the tree's crown, the term being generally used when the tree is in full leaf
- .7 **cavity**
hole in a tree formed by decay or damage from whatever cause
- .8 **coppice stool**
a tree or shrub that has had all live growth removed at close to ground level; such removal may or may not be repeated on a more or less regular cycle (see also pollard)
- .9 **coronet cut**
a reduced branch or large stub that is cut into a man-made wound, so-called because it resembles the appearance of a coronet whilst it approximates to the appearance of a naturally shattered broken end
- .10 **crown**
the part of a tree that is composed of limbs, branches and foliage
- .11 **debris**
those things which appear as a result of the works and which are recognised as being of no value to the Employer, customer or contractor, for example sawdust and chippings created by a chainsaw whilst cutting, diseased wood cut from the tree being worked in or on, non-combustible matter left at fire sites, incompletely combusted wood
- .12 **dismantle**
the complex takedown of a tree in sections that may or may not involve the removal of cut material using a lowering rope system
- .13 **epicormic shoot**
a shoot derived from a dormant or adventitious bud on a main stem or branch

- .14 **final cut wound surface**
the surface of a wound made by the final pruning cut (see Figure Two)



- .15 **final pruning cut**
the action that completes limb, branch or twig removal using pruning tools (see Figure Two)
- .16 **fluids**
any coolant, emulsion, fuel, liquid, paint, pesticide, solvent or wound treatment used during the Contract by the Contractor
- .17 **limbs**
the major components of the scaffold framework forming the tree's crown
- .18 **pollard**
a tree that has had all live growth removed to a point on, or to points close to the main stem at some height above the ground, such removal may or may not be repeated on a more or less regular cycle (see also coppice stool)
- .19 **produce**
arising which have been identified in the tender documents as being of value to the Employer, customer or contractor, for example sound dressed butts, sound cordwood, pulpwood, firewood, woodchips or other material
- .20 **pruning**
the removal of living or dead parts of a plant. Such parts may be soft growth, twigs, branches, limbs, parts of the tree's trunk (aerial growth) and or parts of the tree's root system. The removed material may therefore be of small dimensions or massive pieces of the tree's structure

- .21 **pruning tools**
the work equipment used to remove living or dead parts of a plant. Such tools may be simple hand tools (for example secateurs) or complex machinery (for example a chainsaw)
- .22 **soft growth**
any growing part of the tree which has not undergone secondary thickening and become woody, for example buds and epicormic shoots, basal suckers and root suckers during their first year of development
- .23 **stool**
the tree's root and that part of the tree's trunk remaining which is near to ground level following felling and from which new growth has developed or from which it is proposed to allow re-growth (see also stump)
- .24 **stub**
a short section of a branch that may have been left after previous pruning (which may not have been performed in accordance with the principles of target pruning) or storm damage
- .25 **stump**
the tree's root and that part of the tree's trunk remaining which is near to ground level following felling and from which new growth has not developed or from which it is proposed to prevent re-growth (see also stool)
- .26 **sucker**
a shoot arising from a root system below or just at ground level (the term usually refers to unwanted growth from the rootstock often of a grafted or budded plant)
- .27 **target pruning**
the adoption of pruning cuts that are as small as possible, with branch reduction to the nearest suitable growing point and with final cuts made to the branch collar with tree health as a priority
- .28 **tear out wound**
a naturally occurring usually ragged and splintered wound caused when a branch is torn away from a parent branch, limb or stem
- .29 **timber**
wood which has had value added by being cut to size or worked in some other way by the Contractor
- .30 **trunk**
the main stem of the tree that supports the crown
- .31 **wood**
the tissues of the tree within the cambium that have become secondarily thickened or lignified

.32 **wound**

an injury however caused to any part of the tree, either above or below ground level. Pruning cuts also result in wounds, so should be kept as small as possible and as few in number.

5.2 Sterilisation of Pruning Tools

- 5.2.1 Generally, pruning work on Horse chestnut trees infected with bacterial canker, or other trees infected with diseases such as Phytophthora, should only be carried out using hand-held pruning tools such as a handsaw, bow saw or secateurs as they can be sterilized before working on another, possibly unaffected, tree.

As biosecurity evolves and new diseases and pests arise due to climate change for example, the Contractor will always be aware of new recommendations and changes in regulations to protect all environments and people.

<https://www.forestryengland.uk/sites/default/files/pdf/Biosecurity%20Policy.pdf>

- 5.2.2 Care will be taken when transporting contaminated arisings, for example leaves that may bear leaf miners or caterpillars of the Brown tail moth or fungal fruiting bodies or spores, to ensure that infections, or causal agents of an infection, are not unwittingly dispersed along the route. The Contractor shall undertake a local risk assessment to determine appropriate control measures to prevent the dispersion of infection, such as the sheeting of loads.

5.3 Identification of Trees, and of the Work to be Undertaken

- 5.3.1 The trees to be worked on under the Contract shall be identified by the Employer by a clear and unambiguous system, for example labelling, numbering, reference from some fixed point, use of GPS co-ordinates or reference to species. Clear representation on a Contract Drawing or the use of photographs may be provided by the Employer if required.
- 5.3.2 The Employer may provide photographs to assist with the identification of specific limbs, branches or roots for pruning or removal.
- 5.3.3 If the Contractor has any doubt as to the identity of the tree, or of the work to be undertaken, he should contact the CA to reconcile those doubts before commencement of the works.
- 5.3.4 The Employer may request that the Contractor photographs works, pre and post completion.
- 5.3.5 When considering appropriate pruning specification the Contractor should consider the influence of the trees physiological, ecological and locational context. For example, it would generally be considered inappropriate to:

.1 utilise conservation pruning techniques or retain dying trees within a street tree setting, or

.2 to use target pruning techniques within a nature reserve, which can be extremely damaging to the habitat, particularly if the specification results in the indiscriminate removal of branches and trees without consideration for their habitat value.

5.3.6 The tender documents may state that the prescribed dead wood treatment (see 5.8 Dead Wooding) shall be species dependent as it is generally acknowledged that the characteristics of dead wood in different species do vary. For example, sweet chestnut and species of oak are better able to retain larger pieces of dead wood without the risk of that material be shed and so posing a hazard to those beneath the crown than, for example, species of lime or poplar.

5.4 Pruning Aerial Growth for Aesthetic Reasons

5.4.1 The management of the tree as an aesthetic landscape feature for an ornamental objective shall generally be undertaken following the principles of good arboricultural practice as stated in Arboricultural Advisory Information Service Arboriculture Research Note 48, Definition of the Best Pruning Position.

5.4.2 Where aerial growth is to be removed for these reasons then great care shall be taken to leave neither a stub which may provide a food base for both fresh wound parasites and decay fungi nor to cut back into or beyond the branch collar (see Figure Two).

5.4.3 It is essential that the Contractor relates the position of any individual final pruning cut to the form of the canopy as a whole, so that upon completion of the work the tree has as natural an appearance (for the species) as constraints allow.

5.4.4 Final pruning cuts should be made at a branch fork or at the main stem. Where the branch collar can be detected the final pruning cut should be made back to but not into the collar. When the branch collar cannot be discerned the angle of the final pruning cut should be a mirror image of the angle formed by the branch bark ridge. Where a limb, branch or leader is to be shortened it shall be cut back cleanly to a vigorous side branch a leaving the branch bark ridge and branch collar intact (see Figure Two). Retained side branches intended to form the new dominant shoot should be at least 30% of the diameter of the parent branch.

5.4.5 The final cut wound surface shall be smooth and sound and the cut should have been performed in one continuous cutting operation or movement without damaging surrounding tissues.

5.4.6 The removal of a stub, left from previous pruning work or of a broken branch, should leave a wound surface that slopes at an angle which is a mirror image of the angle of the branch bark ridge (see Figure Two).

5.5 Pruning Aerial Growth for Ecological Reasons

5.5.1 The retention or development of the tree as a natural habitat is a legitimate tree management objective, as is as the management of the tree as an aesthetic landscape feature for an ornamental objective. On occasion both objectives may be appropriate and the CA may provide appropriate management prescriptions.

5.5.2 The pruning of aerial growth in a conservation project or for ecological reasons should prioritise the retention of habitat opportunities such as stubs, decay pockets, split branches and dead wood.

5.5.3 Where such features are considered to be a hazard and a health and safety risk then the appropriate control measure shall be sensitive reduction work to retain the feature, and the ecological interest, rather than completely removing the entire stub, branch, stem or tree.

5.6 Conservation Pruning Techniques

5.6.1 The Contractor will carry out conservation pruning techniques that may be appropriate to prioritise the retention of habitat opportunities within trees, for example where branches are reduced to retain splits and cavities that could be used by wildlife, such as bats.

5.6.2 Such techniques seek to create new habitat opportunities and encourage the creation of decay pockets within living trees and include:

.1 coronet cuts

the cut end of a reduced branch or a large stub that may be creatively cut into a coronet, a man-made wound so-called because it resembles the appearance of a coronet whilst it approximates to the appearance of a naturally fractured broken end. The siting of the cut is generally around a distance of five times the diameter of the branch from the branch union.

.2 destructive pruning

may be used to create habitat in trees as part of a conservation project and involve techniques that will result in the creation of decay within the trunks and main branch structure of trees.

.3 natural fracture pruning

pruning techniques that mimic the natural branch loss that would occur following storm events, small diameter branches may be partially cut through from above and then ripped off, by hand, from within the crown or by rope from ground level, seeking to leave a split or fractured branch end, and exposed heartwood, that may or may not be associated with an existing growing point.

.4 retrenchment pruning

the techniques that mimic the natural processes of aging whilst extending tree viability and retaining habitat features. The techniques seek to reduce the potential for a tree to collapse under its own weight due to excessive end weight on long or weakly attached limbs over a long period of time. Reduction in height, and weight, encourages the development of adventitious growth and the formation of a lower or secondary crown.

.5 veteranisation

pruning techniques intended to prematurely 'age' a tree in a controlled and targeted manner to initiate the creation of habitat or stimulate the formation of a secondary crown

5.6.3 It would be inappropriate to utilise conservation pruning techniques, or to seek to retain dying trees, within a high risk setting such as a street.

5.7 Crown Clean

5.7.1 To crown clean is to remove the dead, dying or diseased branch wood, crossing and rubbing branches (except where grafted to provide a natural brace), broken branches or stubs left from previous tree pruning operations (see also 5.8 Dead Wooding) together with all unwanted objects, which may include fungal fruit bodies, ivy and/or other climbing plants,

nails, redundant cable bracing, rope swings, tree houses and wind-blown rubbish from the tree, and any such debris (BUT NOT water, humus or black mould) from any cavities within the tree.

5.8 Dead Wooding

5.8.1 Dead wooding is the removal from the tree of dead, dying or diseased branch wood, broken branches or stubs left from previous tree pruning operations. The Works Order documents may identify one of three categories of dead wooding to be performed:

.1 complete dead wooding

the removal of dead, dying or diseased wood, broken branches and stubs left from previous tree pruning operations, provided such material exceeds 10mm in diameter or 100mm in length (smaller material shall be allowed to remain in the tree unless the Employer states to the contrary in the Works Order documents)

.2 major dead wooding

the removal of wood either over 50mm in diameter or over 200mm long, be that wood dead, dying or diseased branch wood, broken branches or stubs left from previous tree pruning operations

.3 stabilisation dead wooding

dead wood to be broken off by hand or by being struck with a stick or be partly sawn through and broken off. A throw line may also be used to break off the ends of branches, in order to retain as much aerial dead wood as possible to maintain the habitat value.

5.8.2 Where the extent of dead wood removal is not specified within the Works Order in line with either of the above three listed options at 5.8.1, the Contractor will assume that dead wood is to be removed in keeping with 5.8.1.2 -major dead wooding.

5.8.3 For the avoidance of doubt, under no circumstances shall deadwood be left in a tree in a condition which poses a foreseeable threat to public safety or risk of damage to property.

5.9 Formative Pruning

5.9.1 The objective of formative pruning is to encourage the establishment of a good branch structure and canopy appropriate to the species concerned by the removal of potential defects such as co-dominant leaders and crossing branches leaving only small, quickly occluding wounds.

5.9.2 In a group of trees, those with the best form typical for the species or variety concerned, for example a strong, single leader, good open forking and no signs of disease or decay, may be subject to formative pruning. The tender documents shall indicate the number or proportion of trees in a group to be treated in this way.

5.10 Branch Removal

5.10.1 Branch removal is the removal of a discrete and complete part of the tree's structure, be that epicormic growth or a part of the crown. Branch removal shall be specified as follows:

.1 basal / epicormic growth removal

the removal of all epicormic shoots at the base of the tree and to a height on the main stem, limbs and branches as may be described in the Work Order. Where a height is not specified within the Works Order, the default position will be to remove all epicormic growth up to the first main scaffold limb emanating from the main stem.

.2 twig removal

the removal of all minor secondary growth on the main limbs and branches as marked on site or as described in the Work Order.

.3 branch removal

the removal of a specific branch as marked on site or as described in the Work Order.

.4 limb removal

the removal of a specific limb as marked on site or as described in the Work Order.

5.11 Crown Lifting

5.11.1 Crown lifting is the removal of all soft growth and branches or parts thereof within limits prescribed which are below or which extend below the height specified in the Work Order.

5.11.2 Crown lifting may result in the canopy base being not at one single level but stepped to allow for different clearances, for example where a tree overhangs both a footway and a road where different height clearances are required.

5.11.3 Branches and twigs below the specified height shall be removed wholly and not cut to stumps so as to provide a suitable framework for future growth. Scaffold limbs shall not be cut.

5.12 Crown Thinning

5.12.1 Crown thinning is the removal of a proportion of the small secondary live woody growth, taking care to retain the framework branches, (in addition to weak, damaged, dead, crossing or duplicated branches and soft growth) to reduce the leaf area of the canopy by the percentage, or to the intensity, stated in the tender documents. Normally no more than 25% of secondary growth would be removed in a single operation.

5.12.2 The Works Order may identify certain parts of the canopy of a particular tree where the Employer require the Contractor to concentrate his crown thinning works in order to achieve the desired outcome.

5.12.3 The aim of crown thinning is to produce an even canopy of foliage on a well-structured, balanced, and sound framework of limbs and branches, typical for the species or variety of tree concerned. Crown thinning does not generally include the removal of inner lower branches from the central area of the crown, most pruning wounds shall be made in the outer quarter of the canopy. Under no circumstances shall trees be 'lion-tailed' as part of crown thinning operations.

5.12.4 In confined spaces certain constraints recognised by the Employer may result in the canopy having an un-balanced appearance upon completion of the work.

5.13 Crown Reduction

5.13.1 Crown reduction is the reduction of the complete outline dimension of the canopy, from the tips 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.

5.13.2 The Work Order will identify the reduction by reference to a proportion, or, in most cases, the extent of reduction specified in absolute terms. For instance:

.1 a reduction of 20% on a 20m tree (with a crown 2m above ground) combined with a corresponding proportional reduction of the crown spread radius (5m) would result in a crown reduction of 3.6m height and 1m radius. Upon completion of the works the crown's dimensions would be 16.4m in height and with a radius of 4m.

.2 a reduction by 3.5m of the height on a 20m tree (with a crown 2m above ground) combined with a corresponding proportional lateral reduction of the crown spread radius (5m) by 1.0m would result in a crown reduction of approximately 20% of the crown size.

.3 In certain situations the Employer may direct that the tree's silhouette or the extent of the crown in one particular direction is atypical because of certain local considerations.

5.13.3 The Work Order may use photographs to illustrate the required prescription and indicative final appearance of the worked tree.

5.13.4 Retrenchment pruning undertaken over a period of many years may also be considered as a form of crown reduction work used to encourage the formation of a lower canopy in mature trees.

5.14 Weight Reduction

5.14.1 Weight reduction is precautionary, the systematic and uniform removal of small material from the complete length of a branch in order to reduce the loading on the branch and so the risk of branch failure or the failure of the branch union.

5.14.2 The technique may also be used to retain habitat features, or as part of a progressive retrenchment pruning programme that removes the foliage weight from the ends of long, etiolated, branches that might contribute to the failure of the branch or limb when exposed to heavy snow fall, high winds or periods of high temperature. This selective branch reduction technique may also form part of a crown shaping or crown balancing specification.

5.14.3 Whilst the objective of crown reduction and weight reduction may be similar (to help reduce the load upon the structure) the two techniques differ in one important respect,

.1 crown reduction primarily involves the removal of substantial pieces of branch or limb to reduce canopy height or spread and so results in a smaller outline dimension for the crown, whilst

- .2 weight reduction results in the removal of a percentage of the small growth, generally along the original length of each of the twigs and branches that makes up the limb but retains the crown's original dimensions, occasionally more specifically at the end of the limb.

5.15 Crown Shaping

5.15.1 Crown shaping is the management of the canopy to a particular visual form and may concentrate reduction in one dimension, be that width (in one particular direction) or height, but not necessarily both, by pruning growth to an appropriately sized lateral branch, twig or bud.

5.15.2 In the Works Order documents crown shaping may be defined in either percentage or absolute terms, or both for example:

- .1 the crown of a tree of approximately 18.0m in overall height (the crown of which begins some 2.0m above ground) to be crown shaped by a reduction in height only of 20% shall result in a crown of approximately 14.8m in height, or
- .2 the crown of a tree of approximately 5.5m in radius to be crown shaped by a reduction in width only of 20% shall result in a crown of approximately 4.4m in radius. Crown shaping may often refer to a reduction in width in one particular area of the canopy or one direction only, see also Branch Removal, Weight Reduction, and Crown Balancing.

5.16 Crown Balancing

5.16.1 Crown balancing is similar to Crown Shaping, but with primary consideration being given to the visual form and/or structural balance of the tree's crown by removing eccentric growth.

5.16.2 When the Works Order require that a tree's crown be balanced by the removal of a specified limb then the Contractor will be sympathetic to the complete outline of the canopy, or to the silhouette of the tree, and, as an example, reduce the length of the immediately adjacent branches.

5.16.3 The removal of a particular branch or limb, for whatever reason, might leave the overall appearance of the crown unsightly: the work team should take whatever steps may be required to soften the impact of the works required by the Contractor by the judicious pruning of other, adjacent, parts of the canopy.

5.17 Crown Rejuvenation

5.17.1 Crown rejuvenation shall be prescribed with consideration to the individual requirements of the trees in the tree work package. Crown rejuvenation shall involve a combination of a number of the specifications that aim to either

- .1 restore the vigour to the crown of declining broadleaved trees, or
- .2 form part of a long-term retrenchment pruning programme.

5.17.2 The required combination of treatments will be as specified in the tender documents and may include dead wooding, crown lifting, crown thinning and crown reduction.

5.18 Coppicing

- 5.18.1 Coppicing is the removal of all growth of a tree or shrub to a point close to ground level with the objective of producing a quantity of vigorous basal shoots from the retained stool (see also Pollarding).
- 5.18.2 If the plant is being re-coppiced then stumps of not more than 200mm tall shall be left where each trunk has been removed. If the tree is being coppiced for the first time a single stump of not more than 200mm tall shall be left.

5.19 Pollarding

- 5.19.1 Pollarding is the removal of all the growth of a tree or shrub back to a previous pollard point or knuckle or to the main stem at the height above the ground specified in the tender documents or as instructed by the Employer/CA with the objective of producing a quantity of vigorous shoots basal shoots from the bole (see also Coppicing).
- 5.19.2 With multi-stemmed pollards or trees to be pollarded the weaker stems, as identified by the Employer, shall be removed at ground level.
- 5.19.3 A secondary pollard is similar to a pollard but with the retention of some length of clean scaffold limb above the main stem as the framework for future growth.

5.20 General Prune

- 5.20.1 A general prune shall be a combination of all of the specifications listed below, as may be required, in order to leave the tree in an overall good optimal structural shape and form in keeping with the species, free from causing obstruction, or encroachment on nearby services:
- 5.7 Crown Clean
 - 5.10.1 epicormic growth removal
 - 5.10.3 branch removal
 - 5.11 Crown Lifting

5.21 Bracing and Propping

- 5.21.1 Both bracing and propping shall be carried out in accordance with the technical standards published in BS 3998 : 2010 : *Tree Work, Recommendations*, or that of any superseding regulation.
- 5.21.2 Bracing operations will usually call for the installation of 'Cobra[®]' bracing system, however the Contractor will advise the Employer which operation will be undertaken and any supplementary information which will be recorded in the Works Order.

5.22 Root Pruning

- 5.22.1 Final pruning cuts may be made at a suitable place within the root system, not necessarily at a node or fork. Final pruning cuts shall be made at right angles to the axis of the root, sloping cuts shall be avoided. The final cut wound surface should be smooth and sound and the cut should have been performed in one continuous movement without damaging surrounding tissue.

5.23 Tree Felling

5.23.1 Felling shall be the cutting down of a tree or shrub to a point as close to ground level as is reasonably practicable (unless otherwise specified by the Employer) to leave a stump. Felling in confined spaces or near to adjacent hazards may require that the tree be dismantled. The Contractor will be responsible for all safety preparation and taking all necessary precautions.

5.24 Stump Treatment

5.24.1 Stump treatment is the action specified to prevent re-growth from the stump of a felled tree and to eliminate trip hazards for pedestrian traffic.

5.24.2 The Employer may specify that certain tree stumps be either:

.1 **ground ("chipping" or "cutting" are synonymous with grinding)**

Stump-grinding will be to a depth of 150 to 200mm below the immediately adjacent ground level and will include the removal of the stump and buttress roots but will not include lateral roots unless otherwise specified. using a proprietary machine which may be self-powered or driven from a power-take-off shaft.

Where stumps are to be ground out the Contractor is responsible for satisfying himself as to the whereabouts of any underground services prior to work commencing and the undertakers' apparatus. All debris to be removed and the site be reinstated in accordance with the requirements of Part 6.0 - Reinstatement, as part of the works.

.2 **dug out**

when the Contractor proposes to dig out and remove stumps manually, the Contractor is responsible for satisfying himself as to the whereabouts of any underground services prior to work commencing and the undertakers' apparatus. All debris to be removed and the site be reinstated in accordance with the requirements of Part 6.0 - Reinstatement, as part of the works.

.3 **treated**

the final cut wound surface to be treated with an appropriate pesticide to prevent re-growth from the stump. Pesticides shall be applied to the specified stumps at the Employer's direction. Use of pesticides by the Contractor shall be in accordance with the manufacturer's label recommendations and the safety of people and wildlife.

5.24.3 If a stump is to remain above ground at a safe height for certain circumstances, the CA will inform the Contractor of that height. If however, the Contractor recommends a stump remain above ground, they will seek agreement from the CA prior to completion of works.

5.25 Planting

5.25.1 The Works Order may require that the Contractor undertake tree planting works as part of the Contract. All planting works shall be carried out in accordance with the technical standards published in BS 4428: 1989, *Code of practice for general landscape operations (excluding hard surfaces)*, BS: 3936-1: 1992, *Nursery stock specification for trees and shrubs*, BS: 8545 2014, *Trees: from nursery to independence in the landscape*, as well as other relevant best practice guidance as may be in publication at the time.

- 5.25.2 The Contractor will be responsible for watering of newly planted trees to ensure the continued health and growth during the first year.
- 5.25.3 Where such Works Orders are raised, the Contractor, or the CA, will apply the associated rate and price in accordance with the SOR to cover the associated labour for the planting task.
- 5.25.4 Costs for the supply of trees, as may be specified by the CA on the Works Order, as well as supplementary materials in order to complete the planting task, such as stake, tie, nails, tree-guard, will be subject to quotation for the CA's approval prior to commencement of works. Associated costs will be subject to overhead-uplift at the rates set out in the pricing schedule.
- 5.25.5 The Employer reserves the right to obtain quotations from a third party for the provision of such or other services.

5.26 Hedge Works

- 5.26.1 Separate to the Services covered within this Contract, the Employer has a stand-alone Grounds Maintenance Contract [GMC] provision, which includes the general maintenance of the estate [housing scheme] grounds such as grass cutting, shrub pruning, weed control and hedge-trimming. The Employer may, however, from time to time, require supplementary support from the Contractor to assist with GMC operations – particularly those relating to the trimming or management of hedges.
- 5.26.2 On occasion where required, the Contractor will undertake hedge trimming or management operations in accordance with the SOR'S and the following:
- .1 **light trimming of hedges**
usually undertaken with hedge-trimmers, the trimming of the sides and top of the hedge to remove regrowth to the most recent cut associated with the last hedge trimming operation,
 - .2 **heavy trimming of hedges**
usually undertaken with hand-saw / chainsaw, to return the hedge to fixed dimensions as may be specified on the Works Order. This Operation is usually carried out to hedges where historic management has lapsed and the Employer wishes to restore the hedge to more appropriate dimensions in order to facilitate future ongoing light trimming.
- 5.26.3 Where a Works Order is raised for the requirement of hedge trimming operations [light or heavy] the Works Order will be specified based on a linear meterage of the required hedge / section to be trimmed.
- 5.26.4 Where hedge trimming operations are undertaken, works will be carried out in keeping with all associated clauses, conditions and specifications as may be contained within this Contract pertaining to quality of workmanship, expedition of works, completion of the works and cleanliness of the site upon completion.

5.27 Standards

- 5.27.1 For the avoidance of doubt and where the Contractor may consider there is any ambiguity in the above terms and specification, or within the supplied Works Order, the default standard for all pruning works will be as per those specified within BS 3998 : 2010, *Tree Work*,

Recommendations or any subsequent standards or regulations which may supersede or further support this

5.27.2 Where completed works are to be audited by the Employer, the standard and quality of completed pruning works will be assessed in accordance with BS 3998 : 2010 : *Tree Work, Recommendations*.

5.28 Emergency Call-Out

5.28.1 The Employer may, from time to time, require that the Contractor attend site in order to conduct emergency tree works so as to make-safe any unforeseen circumstance such as tree, stem, limb or branch failure in the event of an unpredictable event such as, for example, high wind / storm, vandalism or road traffic accident.

5.28.2 In such events the Contractor shall expedite attendance to site in a timely manner as is possible and will undertake those works which may be necessary in order to mitigate any risk posed by the fallen tree, stem, limb or branch to public health and safety and /or risk of damage to property.

5.28.3 Whilst such works are unpredictable and will vary greatly as may the individual circumstances and events of such emergencies, in fulfilling the requirement of the Emergency Call-Out, the Contractor will observe all such clauses, conditions and specifications as are contained within this Contract as may be relevant and will ensure that works are completed in full accordance with the same.

5.28.4 The Contractor shall, in attending an Emergency Call-Out, undertake only those works which may be necessary in order to mitigate any risk posed by the fallen tree, stem, limb or branch to public health and safety and /or risk of damage to property. Supplementary works, such as the removal from site of brushwood or log-wood, or the remedial pruning of trees in order to re-shape / balance following the failure of a stem or limb for example, shall be carried out the following day or at a later date as arranged with the Employer.

5.28.5 For billing purposes, the Contractor and CA shall apply the relevant SOR rates for those hours spent by the Contractor attending the Emergency Call-Out plus the associated Over-Extra uplift.

5.28.6 Billable hours will be apportioned by the Contractor and CA commencing from the time the Contractor mobilises from [leaves] their yard or depot to attend the Emergency Call-out, to the time that the Contractor returns [arrives] to their depot following completion of the required works. For example:

- Contractor leaves yard at 10:00pm,
- Contractor spends 1 hour travelling to site,
- Contractor spends 1 hour on site,
- Contractor spends 1 hour travelling back to yard,
= 3 billable hours + associated over-extra uplift (%) as per SOR

5.28.7 In fulfilling the provision of Emergency Call-Out requirements, the Contractor shall be expected to maintain a reasonable state of readiness in order to mobilise suitable tree works

team/s and equipment as may be required on short notice. This may include use of a dedicated call-out 24-hour “hotline” administered by the Contractor – particularly during winter months, storm seasons and other pre-forecast high-wind / foul weather periods.

6.0 Reinstatement

6.1 General

- 6.1.1 All damage caused by the Contractor in the execution of the works shall be fully reinstated to the satisfaction of the CA. The reinstatement of the soft landscape shall be carried out in accordance with the technical standards published in BS 4428: 1989, *Code of practice for general landscape operations (excluding hard surfaces)*. The reinstatement of the hard landscape shall be carried out in accordance with the technical standards published in all the relevant British Standards.
- 6.1.2 Where re-instatement works are not completed to the satisfaction of the Employer or the CA on their behalf, the CA may pursue appropriate measures in keeping with the above sections 2.17 Defective Works, and 3.2 Damage to the Employer's and/or other Third-Party property.