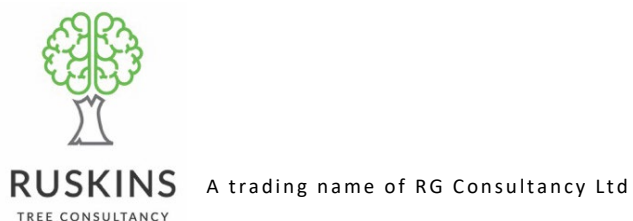


**Arboricultural Report and Tree Condition Survey**  
**for the Proposed Residential Development**  
**at**  
**Brook Farm,**  
**Daws Heath Road,**  
**Daws Heath,**  
**Essex**

**Prepared for:      Countryside Partnerships**



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**Our Ref 0222-10020**  
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## **1.0 Introduction**

- 1.1 This Arboricultural Impact Assessment has been prepared by Ruskins Tree Consultancy to inform the planning application for the construction of a residential development of 173 new dwellings including public open space, landscaping, drainage, parking, servicing, utilities and all associated infrastructure and ancillary buildings including access from Daws Heath Road, at Brook Farm, Daws Heath Road, Daws Heath, Essex.
- 1.2 The site was 1<sup>st</sup> visited in 2014 when a tree condition survey was undertaken, we have revisited the site in March and April 2022 to update the tree survey information.
- 1.3 Following preparation of our tree condition survey we have been provided with a copy of the proposed layout plan and have been instructed to assess the impact of development proposals on the arboricultural resource and to produce the following:
- Arboricultural Impact Assessment
  - Tree Retention and Removals Plan
  - Outline Arboricultural Method Statement.

## **2.0 Report Limitations**

- 2.1 Trees are living organisms as well as self-supporting dynamic structures. Their physiological and structural condition can change rapidly in response to a wide range of biotic/abiotic factors. They have the potential to fail structurally, both with and without prior manifestation of any reasonably observable symptoms.
- 2.2 This report is prepared for the planning application purposes only and does not evaluate the degree of risk posed by trees.
- 2.3 It is beyond the scope of this report to comment in relation to structural damage – direct or indirect, existing or potential – that might be associated with vegetation growth, or vegetation-related soil subsidence or heave.
- 2.4 Any management recommendations set out within this report are of an advisory and preliminary nature only and relate to trees within the context of current site use.
- 2.5 Any physical alterations to site conditions subsequent to the date of the site survey will have the potential to change/invalidate the findings and recommendations of this report.
- 2.6 Findings relate to the condition of the trees as found at the time of survey.
- 2.7 The findings and recommendations of this report are limited to a period of 24 months from the date of this report. In the event of any changes in the rooting environment of the trees including excavation works, waterlogging or removal of any underground structures /services the condition of the trees should be reviewed.

2.8 After extreme weather events or if any large branch failure, other storm damage, structural failure or symptoms of disease of decay including fungi are observed then we recommend that the condition of the trees should be reviewed.

### **3.0 Statutory Tree Protection**

3.1 The site is not located within a Conservation Area. We have carried out an online search which has revealed that no on-site vegetation is subject protection under a Tree Preservation Order.

3.2 No tree works should be undertaken without checking any planning or treeworks consent, checking the statutory protection in relation to trees and if necessary, and obtaining TPO treeworks consent from the Local Authority .

3.3 Felling License legislation is relevant to this site, excluding specific exemptions there is a statutory restriction relating to tree felling that relates to quantities of timber that can be removed within set time periods. In basic terms, unless covered by a full planning consent it is an offence to remove more than 5 cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission. A felling Licence has recently been granted to allow woodland management works to be undertaken within the land to the northern side of the approved development.

3.4 Prior to any treeworks or vegetation clearance being undertaken the possible presence of nesting birds or protected species needs to be considered and if necessary specific ecological advice should be sought.

3.5 Nesting birds and protected species (including bats and their roosts) are protected from disturbance under the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2017. When tree or vegetation clearance work has to be undertaken during the nesting season, a pre-treeworks survey needs to be carried out to check for nesting birds by a suitably competent person.

### **4.0 Relevant Planning Policy and Arboricultural Guidance**

#### **4.1 National policies and Guidance**

4.2 **National Planning Policy Framework (July 2021)** from Department for Communities and Local Government. The updated version of the National Planning Policy Framework (NPPF), published in July 2021, and has built upon many of the principles which were set out in the preceding frameworks. It provides the overarching planning policy framework against which all local plans and neighbourhood plans should be prepared and against which all planning applications are determined.

4.3 National Planning Policy Framework (2021) includes guidance on design and the natural environment in relation to trees in paragraphs 131, 174, 180c.

**National Planning Policy Framework (2021) Paragraph 131.**

*Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.*

**National Planning Policy Framework (2021) Paragraph 174.**

*Planning policies and decisions should contribute to and enhance the natural and local environment by:*

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.*

*Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*

**National Planning Policy Framework (2021) Paragraph 180.**

*When determining planning applications, local planning authorities should apply the following principles:*

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate*

- 4.4 The Glossary Annex 2, of the Framework defines ancient or veteran trees and Ancient Woodland as:
- Ancient or veteran tree: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.*
- Ancient woodland: An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS).*
- 4.5 Standing Advice for Ancient Woodland and Veteran Trees (Natural England and the Forestry Commission, November 2018) guidance issued by Natural England for ancient and veteran trees uses the following criteria. The Standing Advice is a material consideration which should be taken into account when determining planning applications.
- 4.6 A list of potential effects of development on ancient and veteran trees is outlined in the Standing Advice, including direct effects such as loss or damage, and indirect effects such as pollution, hydrological changes, soil compaction and disturbance. The advice recommends that these effects are avoided however, where effects are unavoidable, a range of possible mitigation and compensation measures are identified.
- 4.7 The UK legislation and best practice guidance that has been taken into account in making judgements in this assessment are listed below. Principal application of these documents relates to the conveyance of statutory protection, and to the relationship between trees and the construction process. This has been used to aid detailed development design and to inform the AIA process.
- 4.8 Relevant Legislation and Best Practice Documents**
- 4.9 The Town and Country Planning Act 1990 this act provides legislative protection to trees in the form of Tree Preservation Orders (TPO) and Conservation Area (CA) designations. It is a criminal offence to wilfully destroy or damage a tree covered by a TPO without attaining prior consent or within a CA without giving sufficient notification. The Town and Country Planning (Tree Preservation) (England) Regulations 2012 Replaces all existing legislation on the subject of TPOs and include a number of important changes to TPO procedure.
- 4.10 Forestry Act 1967 (as amended) this gives the Forestry Commission powers to control the quantity of trees being felled at any one time with the provision of felling licenses. The Hedgerows Regulations 1997 Protection of hedgerows qualifying as 'Important' by controlling their removal through a system of notification.

**4.11 Best Practice Guidance**

4.12 British Standard 5837:2012 Trees in relation to design, demolition and construction – Recommendations, this is the main piece of reference material taking account of current best practice regarding planning for the management, protection and planting of trees in the vicinity of structures, and for the protection of structures near trees. Provides a framework for the categorisation of trees to identify the quality and value of an existing tree stock.

4.13 British Standard 3998:2010 Tree work – Recommendations. This presents general recommendations for tree work, including advice for those responsible for planning, specifying and undertaking work on trees.

4.14 Natural England – Veteran trees management handbook this publication provides advice on all aspects of veteran tree management.

4.15 Ancient Tree Forum -*Ancient and other veteran trees*: further guidance on management. This publication provides advice on all aspects of veteran tree management.

**4.16 Local Planning Policies.**

4.17 The Local Authority responsible for planning policy is Castle Point Borough Council. The adopted local Development Plan in Castle Point is the 1998 Local Plan. The most relevant adopted and Saved Local Plan Policies in this instance include the following:

- Policy EC13 – Protection of Wildlife and their Habitats;
- Policy EC14 – Creation of New Wildlife Habitats;
- Policy EC16 – Protection of Landscape;
- Policy EC22 – Retention of Trees, Woodland and Hedgerows;
- Policy EC23 – Tree and Shrub Planting;

4.18 With regard to the site allocation, the limited number of the trees to be removed, the design, and the setting of the retained vegetation within the proposed development, the quantity of open space, the relationship between the proposed development and the woodland beyond the southern boundary and the opportunities for new planting and ecological enhancement, it is my opinion that when the proposed design, landscape strategy and landscape management plan associated with the proposed development are assessed the proposed development does not conflict with these policies.

## 5.0 **Background Arboricultural Information**

5.1 For all trees but particularly those growing in urban or previously developed areas, root growth is not predictable. Tree roots are opportunistic, they grow most prolifically in areas where conditions are favourable and will be deflected by natural features and man-made structures. When hostile conditions are encountered root growth will be limited.

5.2 It is generally agreed that the majority of tree roots, even for a mature tree are found in the top 90cm of the soil. These roots absorb moisture and nutrients needed for growth and contrary to popular belief mature trees do not have a large deep taproot that obtains moisture from great depth.

5.3 An ideal soil for root growth is about 50% pore space (in urban areas this is often significantly reduced). These pores, the spaces between soil particles, are filled with water and air, construction activity can compact the soil and can dramatically reduce the amount of pore space. This not only inhibits root growth and penetration but also decreases oxygen in the soil that is essential to the growth and function of the roots.

5.4 The two main possibilities for injury to trees during and following the construction process are from direct and indirect damage.

- Direct Damage can be defined as injury resulting from physical contact including contact with machinery or fire, and excavation of the root area.
- Indirect Damage can be defined as injury resulting from activities that take place near the tree such as level changes, compaction of the soil, or contamination by chemical spillage in proximity to the root plate.

5.5 Damage to trees (including their root systems) may impact on their long-term health, stability and or vitality.

5.6 The British Standards Institute published 'BS5837:2012 Trees in relation to design, demolition and construction – Recommendations'. This document gives recommendations and guidance on the principles to be applied to achieve a satisfactory juxtaposition of trees with structures. Where development is proposed, the standard provides guidance on how to assess the value and quality of trees and to decide which trees are appropriate for retention.

5.7 The BS Categories referred to in this report are described in detail in Appendix 1. In summary the quality of the trees resource is assessed, and the trees are divided into 4 categories based a number of factors including; their condition, remaining life-expectancy, landscape, arboricultural and cultural/conservation value:

- Category U: Those in such a condition that they cannot realistically be retained
- Category A: Trees of high quality
- Category B: Trees of moderate quality
- Category C Trees of low quality



- 5.8 The BS5837 (2012) also provides information on the protection of trees during the development process. It includes a calculator for Root Protection Areas (RPA) which aims to ensure a sufficient volume of soil and proportion of the root system is protected to maintain the health and vigour and ensure the longevity of the trees.
- 5.9 The Root Protection Area is not related to the canopy spread of the tree; in simple terms it is an area calculated as a multiple of the trunk diameter. For trees with a trunk diameter in excess of 1250mm the Root Protection Area is capped at a total area of 707m<sup>2</sup>. The BS5837 does make specific mention of Veteran trees but does not consider that they require an RPA greater than 707m<sup>2</sup>. The BS5837 does not specifically refer to Veteran Trees or Ancient Woodlands.
- 5.10 As stated the Root Protection Area under BS5837 (2012) is calculated based on x 12 the trunk diameter. The Natural England Standing Advice states *'For ancient woodlands, you should have a buffer zone of at least 15 metres to avoid root damage. Where assessment shows other impacts are likely to extend beyond this distance, you're likely to need a larger buffer zone. For example, the effect of air pollution from development that results in a significant increase in traffic.'*
- 'A buffer zone around an ancient or veteran tree should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5m from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter.'*
- 5.12 The 2<sup>nd</sup> paragraph relates to individual ancient or veteran trees rather than woodland, for ancient woodlands, NE recommends a buffer zone of at least 15 metres to avoid root damage and *'Where assessment shows other impacts are likely to extend beyond this distance, you're likely to need a larger buffer zone. For example, the effect of air pollution from development that results in a significant increase in traffic.'*
- 5.14 Damage to trees and their root environment may result in the partial or complete structural failure of the tree and increases the risk of personal injury. Appropriate tree protection measures and appropriately specified, supervised and implemented works can significantly reduce the risk of damage to the retained trees. To avoid damage to retained trees it is therefore essential that this report and any subsequent Arboricultural Method Statements are read by all parties and the tree protection guidelines contained within these reports are followed by the main contractor, site agent and all contractors on site.

## **6.0 Arboricultural Impact Assessment**

- 6.1 The Brook Farm site is occupied by a farmhouse and equestrian centre with stables, barns an indoor and outdoor ménage and paddocks of varying sizes. The site is also used for the storage of caravans and horse boxes. There are hardstanding tracks including tracks dressed with cockle shells providing access around the site. The site slopes gently uphill from the western Daws Heath Road boundary to the eastern side of the developed equestrian facilities, the site then then slopes downhill towards the western boundary. There is a gently slope downhill from north to south.
- 6.2 To the west the site is bordered by Daws Heath Road to the west, beyond the northern boundary are residential properties and Bramble Road. To the east of the site there are residential properties. To the western end of the southern boundary is Prittle Brook with 'Dodds Grove' wood beyond the brook. Land beyond the southern boundary is split between Dodds Grove (Woodland), other farmland and further residential properties.
- 6.3 The tree stock on the whole was found to be average to high in quality with all of the mature trees set on or around the field boundaries. The trees surveyed where mostly native species dominated by oaks typical of their farmland setting, and slightly varied in age and size. The majority of trees were generally found to be in average health and vigour with a small number found to dead or with significant defects.
- 6.4 The most significant trees individually surveyed were the larger oak trees growing on internal field boundary or beyond the site boundaries.
- 6.5 The off-site Dodds Grove Woodland is designated on Magic Maps as Ancient and Semi-Natural Woodland. The MAGIC website is run by DEFRA and provides authoritative geographic information about the natural environment including rural, urban, coastal and marine environments across Great Britain. Dodds Grove is also deemed to have high amenity / landscape value as well as other historical and conservational benefit. The site is part of the ancient Hadleigh Great Wood and has been designated an SSSI (Site of Special Scientific Interest) and is also a LNR (Local Nature Reserve).
- 6.6 The nearest edge of the proposed development is approximately 190m from the Dodds Grove woodland boundary, with the open land between retained. The proposed layout provides a buffer of sufficient size to ensure that the proposed works do not impact on the woodland beyond the site boundary.
- 6.7 This buffer zone exceeds the minimum guidance outlined in the Natural England Standing advice and exceeds the separation distance that would be achieved by following the guidance outlined in BS5837 (2012) both by a factor of more than x10.
- 6.8 The woodland buffer zone will be fenced off with Tree Protection Fencing which will be erected along the southern edge of the development area.

- 6.9 A total of 157 individual trees, 7 groups of trees, 2 woodland areas and 16 hedgerows have been surveyed, of these the 2 woodland areas are off-site and a number of the individual trees surveyed are growing close or beyond the site boundary.
- 6.10 There are no Veteran or Ancient trees growing within the site, there are a number of mature hedgerow trees growing within the internal hedgerows and growing close to the boundary of the site. These trees consist predominately of oak trees (122 oak trees surveyed), with some hornbeams (15), ash (15) and willows (14) and field maples (2). For details on the individual trees please see the tree condition survey and tree survey plan attached in Appendix 1.
- 6.11 The trees are generally in reasonable condition, although Ash Dieback Disease is noted within the limited number of ash trees. In the 8 years since our original tree survey a small number of ash trees have been removed wither due to storm damage and / or declining health due to Ash Dieback Disease.
- 6.12 The hedgerows vary in age and condition with some hedgerows having been subject to regular management and some hedgerow remaining unmanaged and as a consequence losing their hedgerow characteristics.
- 6.13 There are some areas within the site where stored material, level changes, manure heaps and other works associated with the equestrian facilities have impacted negatively on the growing conditions of a number of the trees.
- 6.14 One of the aims of the proposed layout design has been to retain the majority of the trees and hedgerows. The proposed layout retains the significant vegetation in areas of open space outside the gardens of the proposed dwellings.
- 6.15 Tree and Hedgerow Removals**
- 6.16 The trees and hedgerows to be removed to allow the proposed development are identified within the Tree Condition Survey and shown on the Tree Removals Plan, See Appendix 1.
- 6.17 There are 4 individual mature trees to be removed to allow for the proposed development, (oak T10, hornbeam T11, and oaks T84 and T85). The oak T10 is a declining tree with extensive deadwood and dieback BS5837 Category C (low quality trees) T11, T84 and T85 are BS5837 Category B trees. These trees are growing within internal field boundaries and consequently the impact of these removals is limited.
- 6.18 To allow for the proposed development in addition to the individual trees a short row of willows TG1 is to be removed. These trees are planted to the southern boundary of a paddock to the western part of the site. They have been reduced to 1.5m in height and have canopies formed by co-dominant branches, these trees are considered to be more akin to topped trees rather than pollarded trees. The branches are now failing, whilst they can be reduced and retained within the proposed layout with regard to their past management removal and replacement planting is favoured.

- 6.19 In addition to the individual trees there are a number of internal hedgerows which are to be removed namely H3, H5-H7, H9 along with parts of H2, H4 and H13. In addition a section of the western (highway) boundary hedgerow H1 is to be removed to allow for site access. The internal hedgerows on site range from relatively mature managed hornbeam hedgerows to recently planted post 2003 willow dominated hedgerows and Leyland cypress hedgerows. These hedgerows have been planted to break up the old larger fields to form smaller paddocks for the equestrian facility. The hedgerows to be removed consist of the more recently planted hedgerows with the old higher quality hedgerows and row of trees retained.
- 6.20 The principal of removing trees and hedgerows to allow for development subject to appropriate new tree planting is supported in all the relevant planning policies and in BS5837 (2012). 'Trees in relation to design, demolition and construction – Recommendations' which states that:
- 5.1.1 The constraints imposed by trees, both above and below ground (see Note to 5.2.1) should inform the site layout design, although it is recognized that the competing needs of development mean that trees are only one factor requiring consideration. Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification.*
- 6.21 In my opinion none of the trees to be removed are of considered to be of '*such importance or sensitivity to be major constraints on development or justify its substantial modification*'.
- 6.22 During the layout design process every effort has been made to locate the proposed development within previously developed parts of the site and to retain the boundary vegetation along all the site boundaries.
- 6.23 The trees and hedgerows to be removed for the proposed development are with the exception of the highway hedgerow H1 to the western front boundary located internally within the site. Due to the location of the trees and hedgerows to be removed and the size and age of the retained boundary vegetation, it is our opinion that the proposed vegetation removals will not significantly impact on the amenity value of the trees when viewed from the public realm, and the proposed removals will have a very limited impact on the overall landscape value of the on-site tree resource.
- 6.24 Due to the scale of the proposed development this application provides an opportunity to secure the beneficial management of the wider site with the creation of an orchard, meadows and woodland edge habitat.
- 6.25 The management of the trees and hedgerow will be addressed in a detailed Landscape Management Plan. The tree management aims will be to provide a safe environment for residents, visitors and adjacent land users whilst preserving and enhancing the amenity, landscape, bio-diversity, conservation, historical and environmental value of the tree resource.

- 6.26 Deadwood is observed in a number of the trees, some trees including oaks have the ability to retain deadwood for a number of years as it decays, and it usually eventually falls in small relatively light pieces. Deadwood has a high bio-diversity value and where deadwood is observed in areas of low use / light traffic, we recommend that this can be allowed to remain. Dead wooding will only be taken where significant pieces of relatively large deadwood are observed overhanging the highway or areas of high vehicle or pedestrian traffic.
- 6.27 The proposed development also provides the opportunity to secure much needed new tree planting. The proposed new planting will serve to mitigate the limited impact of the proposed tree removals. The landscaping details are being prepared by David Jarvis Associates and full details can be secured by use of standard planning condition.
- 6.28 Within the site there has been no significant new tree planting within the last 40 years and as a result there is a gap in the age distribution of the trees which has a negative impact on the long-term resilience of the tree resource within the site. The proposed new tree planting will give the opportunity to significantly increase the tree species and age diversity within this site. This planting also gives the opportunity to enhance and secure the long-term future and amenity value of the tree resource within the site.
- 6.29 Providing the retained trees are subject to appropriate protection it is my opinion that the proposed development can be constructed without detriment to the health or longevity of the retained trees.
- 6.30 The significance of the arboricultural impacts of the proposed development are summarised on Table 1

**TABLE SHOWING SIGNIFICANCE OF THE ARBORICULTURAL IMPACTS OF THE PROPOSED DEVELOPMENT**

Potential Effect	Nature of Effect	Significance	Protection / Mitigation / Enhancement	Geographical Impact	Residual Effects
<b>Demolition Phase</b>					
Removal of Trees and hedgerows	Permanent	Minor Adverse	<ul style="list-style-type: none"> <li>Proposed new tree planting</li> </ul>	Local	Negligible
Risk of Damage to Retained trees and hedgerows	Permanent	Highly Adverse	<ul style="list-style-type: none"> <li>Arboricultural Site Supervision</li> <li>Preparation of Arboricultural Method Statement</li> <li>Implementation of Tree Protection Measures</li> <li>Arboricultural Review of Demolition Management Plan</li> </ul>	Local	Negligible
<b>Construction Phase</b>					
Removal of Trees and hedgerows	Permanent	Minor Adverse	<ul style="list-style-type: none"> <li>Proposed new tree planting</li> </ul>	Local	Negligible
Risk of Damage to Retained trees	Permanent	Moderate Adverse	<ul style="list-style-type: none"> <li>Arboricultural Site Supervision</li> <li>Preparation of Arboricultural Method Statement</li> <li>Implementation of Tree Protection Measures</li> <li>Arboricultural Review of Construction and Environmental Management Plan</li> </ul>	Local	Negligible
<b>Residential Phase (Cumulative and Interactive)</b>					
Management of Retained trees and hedgerows	Long-term	Highly Beneficial	<ul style="list-style-type: none"> <li>Implementation of Landscape Management Plan</li> <li>Implementation of Tree Management Strategy</li> </ul>	Local	Highly Beneficial
New Tree Planting	Long-term	Highly Beneficial	<ul style="list-style-type: none"> <li>Implementation of Landscape Plan</li> <li>Maintenance of new planting</li> </ul>	Local	Highly Beneficial
Risk of pressure from Residents for removal of retained trees and hedgerows	Long-term	Minor Adverse	<ul style="list-style-type: none"> <li>Implementation of Tree Management Strategy for trees in open spaces</li> <li>Statutory Protection can be utilised to secure tree works application for consent to undertake works</li> </ul>	Local	Negligible

**Table 1**

- 6.31 The following sections of this report outline the site works in relation to the retained trees, it is proposed as recommended in BS5837 (2012) that subject to planning consent being granted, the tree protection guidelines outlined in this report will be revisited and addressed in detail prior to site works commencing.

## **7.0 Summary of Tree Protection Measures**

7.1 The main points of note regarding the tree and hedgerow protection measures during the proposed works are listed below:

- **An Arboricultural Clerk of Works (ACoW) will be appointed to help ensure that the retained trees are considered during the preparation of all external works drawings and are successfully protected during the proposed works.**
- **Prior to any works commencing on site a meeting will be held with the site agent, client representative, demolition contractor and ground-workers to discuss the Tree Protection Measures associated with this project.**
- **Trees identified for removal as per the approved drawings will be clearly marked with spray paint. All trees and hedgerows work including clearance, removal or facilitation pruning will be undertaken by a suitably qualified and insured Arboricultural Contractor.**
- **The Tree Protection Fencing will be installed prior to enabling, demolition, ground works or construction works commencing and will remain in situ during the construction programme.**
- **Prior to any Enabling / Demolition / Construction works commencing the Tree Protection Measures will be inspected by the ACoW.**
- **No Machinery will overhang or pass over the line of the Tree Protection Fencing.**
- **The Tree Protection / Site Logistics Plan will be on display in the site agent's office.**
- **Any variations to the agreed construction methodology that may impact on the retained trees or the ground around the retained trees and hedgerows will be reviewed by the ACoW**
- **All works (including Landscaping works) within the fenced-off Tree Protection / Construction Exclusion Zone and as identified on the Tree Protection Plan will be specified to avoid excavation, level changes and damage to the root system of the retained trees and hedgerows. The specifications and construction methodologies for all these works will be reviewed by the ACoW prior to works commencing.**
- **The removal or movement of Tree Protection Fencing will only be undertaken following discussion with and receipt of written confirmation from the ACoW.**

7.2 It should be noted that damage to trees both above and below ground may impact on the health and structural integrity of the tree and this may (usually in the longer-term result) in whole or partial tree failure, which has the potential to result in personal injury and or damage to property. With regard to the size and location of the retained trees it is therefore essential that the construction methodology and tree protection measures outlined in this report are fully implemented.



- 7.3 Below is an extract from BS5837 (2012) *'Trees in relation to design, demolition and construction – Recommendations'* relating to the preparation of an Arboricultural method statement.

**6.1 Arboricultural method statement**

**6.1.1** *A precautionary approach towards tree protection should be adopted and any operations, including access, proposed within the RPA (or crown spread where this is greater) should be described within an arboricultural method statement, in order to demonstrate that the operations can be undertaken with minimal risk of adverse impact on trees to be retained.*

**6.1.2** *The arboricultural method statement should be appropriate to the proposals and might typically address some or all of the following, incorporating relevant information from other specialists as required:*

- a) removal of existing structures and hard surfacing;*
- b) installation of temporary ground protection,*
- c) excavations and the requirement for specialized trenchless techniques;*
- d) installation of new hard surfacing – materials, design constraints and implications for levels;*
- e) specialist foundations – installation techniques and effect on finished floor levels and overall height;*
- f) retaining structures to facilitate changes in ground levels;*
- g) preparatory works for new landscaping;*
- h) auditable/audited system of arboricultural site monitoring, including a schedule of specific site events requiring input or supervision.*

**6.1.3** *The arboricultural method statement should also include a list of contact details for the relevant parties.*

- 7.4 Within Section of 9 of this report we will deal with each of the above points in turn, but the 1<sup>st</sup> works to be undertaken prior to any demolition or enabling works commencing will be the tree works along with the installation of the tree protection fencing as per the Tree Protection Plan prepared by Ruskins Tree Consultancy (See Appendix 1).

- 7.5 Prior any demolition, ground works or construction works commencing Tree Protection Fencing will be installed in accordance with the Tree Protection Plan which will be prepared as part of the Arboricultural Method Statement once the site set-up plan and phasing plan is available. Clear notices are to be fixed to the outside of the fencing with words such as 'TREE PROTECTION AREA – NO ACCESS OR WORKING WITHIN THIS AREA'. (See Appendix 3).

- 7.6 Within the fenced off Tree Protection Area unless agreed with the ACoW there will be.

- No level changes + or -
- No storage of plant or materials.
- No storage or handling of any chemical including cement washings.
- No Pedestrian, Machinery or Vehicular Access.
- Any works within the Fenced off areas will be subject to Arboricultural Supervision.

- 7.7 Fires on site should be avoided if possible. Where they are unavoidable, they must not be lit in a position where heat could damage foliage or branches. Fires must be a minimum of 20m from the trunk of any retained tree or the centre line of any hedgerow to be retained.
- 7.8 No signs, cables, fixtures or fittings of any other description shall be attached to any part of a retained tree.
- 7.9 Any works within the fenced-off area will be subject to detailed specification and direct arboricultural supervision. The fencing should only be removed only after completion of the construction works to allow for landscaping works. The fenced off area is a Construction Exclusion Zone (CEZ).
- 8.0 Arboricultural Site Supervision**
- 8.1 To ensure that the demolition and construction process is undertaken with minimal disturbance to the retained tree stock, an Arboricultural Clerk of Works (ACoW) as defined by BS5837 (2012) will be appointed to undertake regular inspections of the site.
- 8.2 The Arboricultural Clerk of Works role shall be to:
- a. To assess the specification and methodology of the proposed works and ensure these works have the minimum impact on the retained trees.
  - b. Brief the workers on the necessity to protect the retained trees.
  - c. To ensure the agreed methodology is followed by direct on-site supervision.
  - d. To prune roots using clean sharp pruning tools during manual excavation (if necessary).
  - e. To provide direction on tree protection issues as they arise.
  - f. To monitor and photograph the works undertaken.
- 8.3 Prior to site works commencing a site meeting will be held with the site agent and the arboricultural clerk of works and the demolition and ground works contractors.
- 8.4 The purpose of this meeting is to brief the site manager and relevant parties on the arboricultural issues to be considered, agree the programme of works and the location tree protection fencing.
- 8.5 The tree protection measures will be explained to all contactors and sub-contractors who will read and sign this document before they undertake any works on site.
- 8.6 Arboricultural monitoring site visits will be undertaken at regular intervals during the construction process.
- 8.7 To deal with any incidents or issues involving trees, the Arboricultural Clerk of Works will provide a contact number that will be answered during all the hours of works on site. The RBWM Tree Officer will be informed of any accidents or emergencies involving trees.

## **9.0 Vegetation Removals**

- 9.1 It is intended that the tree works will be undertaken as per the approved plans on the granting of full planning permission.
- 9.2 All tree works will be undertaken by appropriately qualified and insured Tree Surgery Contractors with all works to comply with BS3998 2010.
- 9.3 The appointed contractors will submit full risk assessments and method statements and the works will be undertaken and supervised to ensure that the retained tree resource remains unaffected by the works
- 9.4 The tree works will be undertaken prior to the erection of the tree protection fencing, all vehicles and machinery will be located on the existing hardstanding or on open ground well beyond the Root Protection Area of the retained vegetation.

## **10.0 Arboricultural Method Statement**

### **10.1 Removal of existing structures and hard surfacing**

- 10.2 All the existing buildings within the development site are to be demolished. Prior to demolition works commencing the demolition management plan will be reviewed and a site meeting will be held with the site agent, the demolition contractor and the Arboricultural Clerk of Works. The purpose of this meeting is to brief the site agent and demolition contractor on the arboricultural issues to be considered, review the demolition methodology and agree the programme of work and check on the location tree protection fencing.
- 10.3 The main points of note regarding the tree protection measures during the demolition works are listed below
- **Tree Protection Fencing will be installed prior to demolition works commencing**
  - **The existing hardstanding is to be retained during the demolition works\***
  - **No fires within 10m of any part of the retained trees**
  - **No storage of materials within 2m of any Tree Protection Fencing**
  - **No tree removals are to be undertaken as part of the demolition works.**
  - **No access across open ground within the RPA of retained trees**
  - **No Level changes within the RPA of retained trees**
- 10.4 Prior to demolition works commencing the tree protection fencing will be erected to restrict the working zone and if necessary temporary ground protection will be installed as per the Tree Protection Plan which will be prepared prior to works commencing on site. This 2m high fencing will form a rigid, immovable barrier which will be braced and secured in place using ground pins (See Appendix 2). Tree protection fencing must remain in place throughout the demolition and construction works.

- 10.5 The existing hardstanding will be retained through the building demolition programme. At an agreed stage in the programme this hardstanding is to be removed as part of the landscaping works and will be undertaken under direct supervision by the Arboricultural Clerk of Works (ACoW). The removal of any existing hardstanding within the theoretical root protection area of retained trees will be undertaken under direct arboricultural supervision.
- 10.6 All spoil, including excavated soil and demolition material, will be removed from site or stored in a location remote from any tree protection barriers. The fuel storage and refuelling point is to be located in an area remote from any of the trees.
- 10.7 During the demolition process weekly arboricultural monitoring site visits will be undertaken by the ACoW. A mix of scheduled and unannounced site visits will be undertaken these inspections will serve to identify any damage to the Tree Protection Fencing, poor working practices, potential problems and points of conflict between the demolition process and the health of the trees.
- 10.8 During these visits any changes to the proposed works will be discussed, their impact assessed and recommendations for best practice will be outlined. After each of these visits a copy of the report will be sent to the Site Agent, Local Authority Tree Officer and Project Manager. The remedial action undertaken will be recorded on the next visit.
- 10.9 If any degradation of the existing hardstanding occurs within the Root Protection Area of retained trees with any cracking, rutting or other damage observed, then traffic will immediately be stopped in these areas and the hardstanding will be treated to prevent compaction of the subsoil beneath. These works may include laying metal highway sheets, the use of a Geoweb or similar and or laying a sacrificial surface. If deemed necessary, these works will be undertaken under supervision by the ACoW and will be specified to avoid damage to the underlying soil or surrounding open ground.
- 10.10 Installation of temporary ground protection**
- 10.11 If required temporary ground protection within the Root Protection Area of retained trees will be installed using a low-impact 'No-Dig' Hardstanding.
- 10.12 A detailed specification for these areas will be prepared based on the soil characteristics and expected traffic prior to works commencing on this site. This specification will be reviewed and approved by the Arboricultural Clerk of Works. (See Section 10.17).
- 10.13 Excavations and the requirement for specialized trenchless techniques**
- 10.14 Drainage and Underground services will be designed to avoid the root protection areas of retained trees. The underground services drawing will be reviewed by the ACoW. If underground services are located within the Root Protection Area of retained trees the works the works will follow the guidelines outlined in NJUG Volume 4 Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2.

10.15 This guidance recommends works are undertaken following these rules; (with our additional comments in italics).

- **Don't** excavate with machinery. Where excavation is unavoidable within this zone excavate only by hand or use trenchless techniques. (*Preferably using an air-spade to excavate soil to determine the size, location and density of roots within the service route*).
- **Don't** cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer. (or ACoW)
- **Don't** move / use heavy mechanical plant except on hard standing.
- **Don't** store spoil or building material, including chemicals and fuels, within this zone.
- **Do** prune roots which have to be removed using a sharp tool (e.g. secateurs or handsaw). Make a clean cut and leave as small a wound as possible.
- **Do** backfill the trench with an inert granular material and topsoil mix. Compact the backfill with care around the retained roots. On non-highway sites backfill only with excavated soil.
- **Do** protect any exposed roots with dry sacking ensuring this is removed before backfilling.
- **Do** notify the local authority tree officer and the tree's owner of any damage.

**10.16 Installation of new hard surfacing;**

10.17 Where required No-Dig Hardstanding will be installed following a specification which limits excavation and avoid damage to the root system and rooting environment of the retained trees. In areas where there is existing hardstanding the new 'No-Dig' hardstanding will be specified and constructed to avoid excavation beneath the depth of the existing concrete and sub-base. The sub-base and surface finish of the proposed hardstanding will be specified to be both permeable and porous. Within the RPA of retained trees in areas of existing open ground the new 'No-Dig' hardstanding will be specified and constructed to avoid excavation >100mm below the existing ground level.

10.18 Detailed site-specific specification for the permanent No-Dig Hardstanding will be prepared based on the soil characteristics and expected traffic prior to works commencing on this site, this specification will be reviewed and approved by the Arboricultural Clerk of Works.

10.19 For the No-Dig hardstanding the following guidelines will be followed:

- No excavation is to be undertaken without agreement and supervision by the Arboricultural Clerk of Works.
- During construction of the hardstanding all operations will be carried out using machinery located on the existing hardstanding, temporary ground protection or the installed hardstanding. No machinery will travel across the area where the existing hardstanding has been removed.
- Install a cellular confinement system (such as Protectaweb or similar) as per manufacturers specification.
- Fill with 200mm of clean stones sizes 6mm-50mm as per the manufacturers' specifications. This fill must contain no fines, crushed concrete or MOT 'Type 1' is not a suitable fill material.
- Concrete kerbs can be used if bedded using a concrete haunch keyed into the cellular confinement system. No excavation for edging kerbs will be permitted.
- The finished surface, membranes and all layers must be permeable to moisture penetration.

**10.20 Specialist foundations**

10.21 The underlying soil conditions and proximity of existing and proposed trees will be considered during the specification of the foundations. This specification for these garage foundations and the construction methodology will be reviewed and approved by the Arboricultural Clerk of Works prior to these works commencing in this area.

**10.22 Retaining structures to facilitate changes in ground levels**

10.23 The layout design has been undertaken to avoid retaining walls in proximity to the retained trees. Prior to works commencing the design and methodology and specification for any retaining walls works will be reviewed by the ACoW.

**10.24 Preparatory works for new landscaping**

10.25 Dismantling the protection barriers will be required to allow completion of final landscaping. Supervision of this exercise and control of the landscaping thereafter will be administered by the appointed Arboriculturist. The removal of the Tree Protection Fencing is not an opportunity for machinery to access the previously fenced off area.

10.26 No further excavation will be carried out during this process and soils levels will not be raised above that existing by greater than 100mm and not at all within 2m of the trunk.

10.27 During landscaping works the following guidance will be followed.

- Landscaping within the RPA of retained trees shall be by manual methods only.
- No machinery is to be used for cultivation, removal of soil or additional of soil.
- For areas of open ground original soil levels shall be unchanged, without import of topsoil or removal of existing soil.
- For laying of turf, the soil will not be rotavated. The soil will be lightly forked, manually hoed and raked to a fine tilth prior to laying of turf.
- For shrubs or herbaceous beds. Planting shall be by use of hand tools and excavation shall be to the minimum extent required for planting of shrubs etc., on an individual plant by plant basis.
- Bark mulch may be applied to a maximum 75mm depth. No mulch should be piled up against the trunk of retained or newly planted trees.

**10.28 Auditable / audited system of arboricultural site monitoring**

10.29 See Section 9.0. Arboricultural monitoring site visits will be undertaken at regular intervals during the enabling / demolition and construction programme. During the demolition / groundworks and initial phases of construction works site the visits will be undertaken on a maximum of a fortnightly intervals, as the construction programme progresses and the high-risk activities in terms of impacting on trees have been completed the intervals will increase with the maximum interval between site visits of 1 month.

10.30 To deal with any issues involving the trees and provide advice and support to the site agent the Arboricultural Clerk of Works will provide a contact number that will be answered during all the hours of works on site (See Below). The Local Authority Tree Officer will be informed of any incidents or issues involving trees.

## **11.0 Conclusion**

11.1 The proposed development requires the removal of 4 individual trees, and 1 row of crack willows, one section of the highway hedgerow and 6 internal hedgerows with sections of 2 additional internal hedgerows to allow for the proposed development. With regard to the location of the trees and hedgerows to be removed, when viewed from the public realm the impact of the proposed vegetation removals will be limited. None of the trees to be removed are protected by Statutory Protection.

11.2 The British Standard BS5837:2012 contains clear and current recommendations for a best practice approach to the assessment, retention and protection of trees on development sites. This redevelopment has followed this guidance by:

- Assessing the quality of the trees and considering the benefits and constraints to development of the site in relation to the quality of the tree resource.
- Seeking arboricultural advice to inform the layout and design of the proposed development.

11.3 With regard to the site allocation, the limited number of the trees to be removed, the design, and the setting of the retained vegetation within the proposed development, the quantity of open space, the relationship between the proposed development and the woodland beyond the southern boundary and the opportunities for new planting and ecological enhancement, it is my opinion that when the proposed design, landscape strategy and landscape management plan associated with the proposed development are assessed the proposed development complies with the relevant planning policies.

11.4 The protection of retained trees during the proposed development works can be achieved by continuing to follow the recommendations in BS5837:2012 and by use of standard planning conditions. All works and the Demolition and Construction Management Plan and Methodology will be reviewed by the Arboricultural Clerk of Works and a detailed site specific Arboricultural Method Statement will be prepared prior to any works commencing on site.

11.5 The Arboricultural Method Statement will include details of the following:

- All tree protection measures
- All temporary works (Site Facilities)
- All Works within the Root Protection Areas of the retained tree
- Provision of Arboricultural Site Supervision during proposed works

- 11.6 The proposed landscaping scheme will mitigate the limited impact of the proposed vegetation removals and will serve to increase tree cover and significantly improve the age and species diversity of the tree resource whilst providing an attractive environment for future residents. The landscape strategy has been prepared by David Jarvis Associates and full details on new planting can be secured by use of a standard planning condition.

Peter Wilkins BA (Hons) MArborA MEnvSc CEnv

Ruskins Tree Consultancy

May 2022



## **Appendix 1**

### **Tree Condition Survey**

### **Tree Survey Plan**

### **Tree Retention and Tree Removals Plan**

## **Pre-Development Tree Condition Survey for Brook Farm, Daws Heath Road, Daws Heath, Essex**

**Prepared for:      Countryside Partnerships**



A trading name of RG Consultancy Limited

**Peter Wilkins BA(Hons) MArborA MEnvSc. CEnv.  
Our Ref 0222-10020  
April 2022 Revised May 2022**

## **Pre-Development Tree Condition Survey for Brook Farm, Daws Heath Road, Hadleigh, Essex**

### **1.0 Introduction**

This survey has been undertaken on behalf of Countryside Partnerships, we have been asked to assess the condition of trees located within and close to the boundary of the site.

The site was first visited in November 2014 and most recently in April 2022 when an assessment of the trees' condition was made in accordance with BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations'

### **2.0 Survey Methodology**

We have surveyed all the individual trees and groups of trees located within and close to the boundary of the site. The objective of the survey is to collect tree data relevant to the proposed redevelopment of the site and to categorise individual trees or tree groups in accordance with BS 5837 (2012) 'Trees in relation to design, demolition and construction – Recommendations' based on their condition, quality and future potential.

The purpose of the categories within BS5837 2012, is not to determine whether retention of trees is desirable, *'The purpose of the tree categorization method, which should be applied by an arboriculturist, is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.'* (BS5837 2012 Section 4.5.2). This survey should therefore be regarded as an initial appraisal and observations, assessments or recommendations relating to tree protection zones, remedial tree works, protective fencing, foundation design, material specification are beyond the scope of this report.

The location of the tree is shown on the attached drawing. A detailed inspection with respect to decay, defects and hazard is not included.

**TABLE 1**

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T1	Lawson Cypress	5	200	1	2	2	2	2	40+	A	A	M	Low amenity / landscape value A mature tree of limited merit growing within the garden of the Brook Farmhouse. The tree has average form and some remaining life expectancy but is not worthy of consideration during the planning process.	No works	C3
T2	Removed														
T3	Removed														
T4	Ash	10	240*	1	1	4	2	1	10-20	P	P	SM	Low amenity / landscape value Asymmetric crown area Stem cavity with decay Ivy growing on stem A semi-mature tree of no particular merit growing on the western front highway boundary to the northern side of the existing access. The tree has indifferent form a limited remaining life expectancy due to Ash Dieback Disease and is not worthy of consideration during the planning process.	No works	C3
T5	Oak	11	450*	1	4	5	3	4	40+	A	A	EM	Asymmetric crown area Twin stemmed tree at 3m Heavily ivy clad crown / stem An early mature tree of above average merit growing on the western front highway boundary to the northern side of the existing access. The tree is of average form, has a long remaining life expectancy and has long term potential.	No works	B3
T6	Oak	11	360*	1	5	6	3	3	40+	A	A	EM	Asymmetric crown area Heavily ivy clad crown / stem An early mature tree of above average growing on the western front highway boundary to the northern side of the existing access. The tree is of average form, has a long remaining life expectancy and has long term potential	No works	B3
T7	Ash	7.5	350*	1	4.5	4	3	4	10-20	P	P	EM	Asymmetric crown area Basal growth on buttress roots Heavily ivy clad crown / stem The tree has indifferent form a limited remaining life expectancy due to Ash Dieback Disease and is not worthy of consideration during the planning process.	No works	B3

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T8	Ash	10	250*	1	3	3	3	3	10-20	A	A	M	A semi-mature tree of no particular merit growing on the northern boundary close to the boundary with the rear garden of 423 Daws Heath Road The tree has indifferent form and a limited remaining life expectancy due to Ash Dieback Disease.	No works	C3
T9	Oak	11	450, 300	1	5	8	8	7	40+	A	A	EM	Moderate deadwood Asymmetric crown area Twin stemmed tree at 1.8m Stem wound with decay Ivy growing on stem An early mature tree growing near to the northern side of the access road.	No works	B3
T10	Oak	12	750*	1	5	7	6	7	10-19	P	P	EM	Major deadwood Twin stemmed tree at 1.5m Constriction wounds from fencing at 1m & 1.5m Tree is in decline and is considered to have a limited remaining life expectancy.	Remove to allow for proposed access road	C1
T11	Hornbeam	8	670*	1	1	3.5	8	5	40+	A	P	M	A mature tree growing to western flank boundary Suppressed by adjacent vegetation Twin stemmed tree at 2.5m Heavily ivy clad crown / stem A mature tree growing near to the western site boundary provides useful as screening for third party property.	Remove to allow for proposed access road	B3
T12	Hornbeam	8	220*	1	1	6	2	4	40+	A	P	EM	A mature tree growing to western flank boundary Suppressed by adjacent vegetation Twin stemmed tree at 2.5m Heavily ivy clad crown / stem A mature tree growing near to the western site boundary provides useful as screening for third party property.	No works	B3
T13	Hornbeam	8	340*	1	3	4	7	3	40+	A	A	EM	A mature tree growing to western flank boundary Suppressed by adjacent vegetation Twin stemmed tree at 2.5m Heavily ivy clad crown / stem A mature tree growing near to the western site boundary provides useful as screening for third party property.	No works	B3
T14	Hornbeam	8	340*	1	3.5	5	7	2	40+	A	P	EM	A mature tree growing to western flank boundary Suppressed by adjacent vegetation Twin stemmed tree at 2.5m Heavily ivy clad crown / stem A mature tree growing near to the western site boundary provides useful as screening for third party property.	No works	B3

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T15	Oak	15	1050*	1	5	11.5	11	9	40+	A	A	M	High amenity / landscape value Major deadwood Asymmetric crown area Low branches over site Heavily ivy clad crown / stem A mature tree of high merit growing near to the western site boundary. The tree is of average form, has a long remaining life expectancy and long-term potential	No works	A3
T16	Oak	12	850*	1	5	5	2	7	40+	A	A/P	M	Moderate deadwood Highly asymmetric crown area Twin stemmed tree at 6m Dead ivy on stem A mature tree of above average merit growing near to the western site boundary. The tree is of indifferent form, has a long remaining life expectancy and moderate potential for further growth	No works	B2
T17	Oak	12	850*	1	6	7	3	7	40+	A	A	M	Major deadwood Asymmetric crown area Twin stemmed tree at 6m Heavily ivy clad crown / stem A mature tree of above average merit growing near to the western site boundary. The tree is of average form, has a long remaining life expectancy and has long term potential	No works	B2
T18	Oak	5	300, 400	2	3	4	2	1	0	0	0	M	Dead tree	Remove	U
T19	Hornbeam	10	350*	1	3	5	2.5	4.5	40+	A	A	EM	Asymmetric crown area Multi stemmed tree at 3m Ivy growing on stem An early mature tree of above average merit growing near to the western site boundary. The tree is of average form, has a long remaining life expectancy.	No works	B2
T20	Hornbeam	10	300, 300, 300, 350, 400	MS	5	6	5	6	40+	A	A	M	Moderate deadwood Asymmetric crown area Multi stemmed tree at ground level, 1m & 1.5m Included branch / stem union Bark wound with early decay Epicormic growth on stem Basal growth on buttress roots An early mature tree of above average merit growing near to the western site boundary. The tree is of average form, has a long remaining life expectancy.	No works	B2

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T21	Hornbeam	9	200	1	1	2	2	1	<10	L	A	M	Low amenity / landscape value Tree appears in decline Asymmetric crown area Twin stemmed tree at 3m Basal growth on buttress roots Epicormic growth on stem	No works	U
T22	Hornbeam	9	340*	1	3	3	3	3.5	40+	A	A	EM	Asymmetric crown area Multi stemmed tree at 3m Epicormic growth on stem Basal growth on buttress roots An early mature tree of above average merit growing near to the western site boundary. The tree is of average form, has a long remaining life expectancy.	No works	B2
T23	Field Maple	9	400*	1	3.5	4.5	2	4.5	40+	A	A	M	Asymmetric crown area Leaning at 10 degrees Epicormic growth on stem Basal growth on buttress roots Ivy growing on stem A mature tree of above average merit growing near to the western site boundary. The tree is of average form, has a long remaining life expectancy	No works	B2
T24	Field Maple	8.5	450*	1	5	6	2.5	5	40+	A	A	M	Asymmetric crown area Twin stemmed tree at 3.5m Heavily ivy clad crown / stem A mature tree of above average merit growing near to the western site boundary. The tree is of average form, has a long remaining life expectancy See Notes 1 & 2	No works	B2
T25	Oak	8.5	540*	1	2.5	6	3	4.5	40+	A	A/P	EM	Moderate deadwood Asymmetric crown area Tree reduced in past Low branches over site Dead ivy on stem A mature tree of average merit growing in the north west corner of the site. The tree although heavily pruned, has a moderate remaining life expectancy and moderate potential	No works	B3

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T26	Oak	12	850*	1	1	1	7	1	40+	L	P	M	T26-T39 are linear group of mature oak trees growing to the northern boundary of the site. The trees are on an old ditch line and many have been adopted and managed by the residential properties beyond the northern boundary. The management undertaken to these trees has compromised their appearance however as a linear group they have landscape value. Tree heavily reduced in past, some regrowth Moderate deadwood Heavily asymmetric crown area Epicormic growth on stem	No works	C1
T27	Oak	11	700*	1	4	4	8	10	40+	A	A	M	Moderate deadwood Asymmetric crown area Tree reduced in past Twin stemmed tree at 4m Branch wound to large bough over site Epicormic growth on stem Ivy growing on stem See T26	No works	B3
T28	Oak	12	370*	1	3	4	8	2	40+	A	A	EM	Moderate deadwood Asymmetric crown area Tree reduced in past Epicormic growth on stem See T26	No works	B3
T29	Oak	12	480*	1	2	4	8	3.5	40+	A	A	EM	Moderate deadwood Asymmetric crown area Tree reduced in past Multi stemmed tree at 2.5m Epicormic growth on stem See T26	No works	B3
T30	Oak	12	660*	1	5	4	8	7	40+	A	A	EM	Moderate deadwood Asymmetric crown area Tree reduced in past Branch cavity with decay Multi stemmed tree at 2.5m Stem cavity with decay Epicormic growth on stem See T26	No works	B3



Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T31	Oak	11	750*	1	6	5	10	8	40+	A	A	M	Major deadwood Asymmetric crown area Multi stemmed tree at 3m Epicormic growth on stem Heavily ivy clad crown / stem See T26	No works	B3
T32	Oak	9	600*	1	3	1.5	5	1.5	<10	L	P	EM	Low amenity / landscape value Major deadwood Tree appears in decline Asymmetric crown area Old pruning wounds to scaffold / stem Twin stemmed tree at 4.5m Epicormic growth on stem In Decline See T26	Remove	U
T33	Oak	11	1000*	1	5	4	7	5	40+	A	A	M	Moderate deadwood Asymmetric crown area Multi stemmed tree at 3m Stem cavity with decay Epicormic growth on stem See T26	No works	B3
T34	Oak	10	550*	1	3.5	2	4.5	3.5	40+	A	A	EM	Moderate deadwood Asymmetric crown area Twin stemmed tree at 3m Epicormic growth on stem See T26	No works	B3
T35	Oak	10	980*	1	5	4	5.5	4.5	40+	A	A	M	Moderate deadwood Asymmetric crown area Tree reduced in past Twin stemmed tree at 4.5m Epicormic growth on stem See T26	No works	B3
T36	Oak	12	890*	1	4	2.5	2	1.5	20-39	L	P	M	Tree appears in decline Asymmetric crown area Burring to stem Epicormic growth on stem A mature tree of no particular merit growing beyond the northern site boundary. The tree has poor form and is in decline limiting its overall potential See T26	No works	B3

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T37	Oak	12	880*	1	5	5	6	5	40+	A	A	M	Moderate deadwood Asymmetric crown area Twin stemmed tree at 5.5m Epicormic growth on stem Heavily ivy clad crown / stem A mature tree of above average merit growing beyond the northern site boundary. The tree is of average form, has a long remaining life expectancy and long-term potential See T26	No works	B3
T38	Oak	12	800*	1	7	5	6	3	40+	A	A	M	Moderate deadwood Asymmetric crown area Heavily ivy clad crown / stem A mature tree of above average merit growing beyond the northern site boundary. The tree is of average form, has a long remaining life expectancy and long-term potential See T26	No works	B3
T39	Oak	12	1050*	1	6	7	7	5.5	40+	A	A	M	Moderate deadwood Asymmetric crown area Burring to stem Epicormic growth on stem See T26	No works	B3
T39a	Oak	8	320	1	4	4	4	4	40+	A	A	SM	A semi-mature tree growing close to the northern boundary	No works	C1
T40-T42	Removed due to storm failure														
T43	Oak	18	900*	1	7	7	7	4.5	40+	A	A	M	T43-T53 are linear group of mature oak trees growing to the northern boundary of the site. These trees have been subject to limited management and have a value as a boundary landscape feature Asymmetric crown area Epicormic growth on stem	No works	B1
T44	Oak	16	750*	1	7	6	8	3.5	40+	A	A	M	Moderate deadwood Asymmetric crown area Twin stemmed tree at 4m Low branches over site Epicormic growth on stem See T43	No works	B2

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T45	Oak	14	950*	1	6	7.5	8	4.5	40+	A	A	M	Moderate deadwood Asymmetric crown area Multi stemmed tree at 4m Epicormic growth on stem Dead ivy on stem See T43	No works	B1
T46	Oak	12	800*	1	5	5	5.5	6	40+	A	A	M	Moderate deadwood Asymmetric crown area Epicormic growth on stem Heavily ivy clad crown / stem See T43	No works	B2
T47	Oak	13	850*	1	4	4.5	5	4.5	40+	A	A	M	Moderate deadwood Asymmetric crown area Epicormic growth on stem Heavily ivy clad crown / stem See T43	No works	B2
T48	Oak	16	900*	1	8	5	6	5	40+	A	A	M	Moderate deadwood Asymmetric crown area Epicormic growth on stem Heavily ivy clad crown / stem See T43	No works	B2
T49	Oak	9	750*	1	3	4.5	6	4	10-20	A	A	M	Major deadwood Tree appears in decline Asymmetric crown area Stem cavity with decay See T43	No works	C1
T50	Oak	11	730*	1	5	5	6	6	40+	A	A	M	Moderate deadwood Storm damaged crown Asymmetric crown area Multi stemmed tree at 2.5m Stem cavity with decay See T43	No works	B2
T51	Oak	13	950*	1	8	8	8.5	5	40+	A	A	M	Moderate deadwood Asymmetric crown area Multi stemmed tree at 7m Burring to stem Epicormic growth on stem See T43	No works	B2

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T52	Oak	13	850*	1	6	5	8.5	9	40+	A	A	M	Moderate deadwood Asymmetric crown area Epicormic growth on stem Ivy growing on stem See T43	No works	B2
T53	Oak	13	700*	1	3	3	4	3.5	30-40	A/L	A	M	Low amenity / landscape value Tree appears in decline Asymmetric crown area Pruning wounds to scaffold / stem Multi stemmed tree at 4.5m Epicormic growth on stem Ivy growing on stem See T43	No works	C1
T54	Oak	14	650*	1	7	6	4	8	40+	A	A	M	A mature tree with a limited remaining life expectancy due to Ash Dieback Disease. Twin stemmed tree at 5m with an symmetric crown area	No works	B2
T55	Ash	14	500*	1	4	3	6	2	10-19	P	P	M	Heavily ivy clad crown / stem and a limited remaining life expectancy due to Ash Dieback Disease. Asymmetric crown area	No works	C3
T56	Ash	14	600*	1	8	8	6	5	10-19	A	A	M	Asymmetric crown area Multi stemmed tree at 4m Heavily ivy clad crown / stem and a limited remaining life expectancy due to Ash Dieback Disease See T43	No works	C3
T57	Hornbeam	14	800*	MS	3	6	3	6	40+	A	A/P	M	Asymmetric crown area Multi stemmed tree at ground level Included branch / stem union	No works	B2
T58	Hornbeam	14	800*	MS	2	6	3	6	40+	A	A/P	M	Asymmetric crown area Multi stemmed tree at ground level Included branch / stem union	No works	B2
T59	Hornbeam	12	850*	MS	4	7	3.5	6	40+	A	A/P	M	Asymmetric crown area Multi stemmed tree at ground level Included branch / stem union Epicormic growth on stem	No works	B2
T60	Oak	14	870*	1	7	8	5	8	40+	A	A	M	Major deadwood Asymmetric crown area Twin stemmed tree at 2m & 5m Epicormic growth on stem Ivy growing on stem	No works	B2

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T61	Oak	13	750*	2	4	5	5	7	40+	A	A	M	Moderate deadwood Asymmetric crown area Multi stemmed tree at 2.5m Twin stemmed tree at ground level Ivy growing on stem	No works	B2
T62	Oak	12	620*	1	6	8	3	8	40+	A	A	M	Major deadwood Asymmetric crown area Twin stemmed tree at 2.5m Smaller dead side stem Epicormic growth on stem	No works	B2
T63	Oak	12	780*	1	3	8	5	8	40+	A	A	M	Major deadwood Branch wound to bough with decay Multi stemmed tree at 3.5m Epicormic growth on stem Debris piled in rooting area	No works	B2
T64	Oak	6.5	400*	1	3.5	4	4	5	40+	A	A	EM	Asymmetric crown area Debris piled in rooting area	No works	B3
T65	Oak	9	450*	1	6	5	1	5	40+	A	A/P	EM	Low amenity / landscape value Asymmetric crown area Leaning at 10 degrees Smaller side stem Epicormic growth on stem	No works	C1
T66	Oak	16	800, 700	2	7	7	8	7	40+	A	A	M	A mature twin-stemmed tree of above average merit growing near to the access track. Major deadwood Asymmetric crown area Twin stemmed tree at 1m & 3m Debris piled in rooting area Epicormic growth on stem Damage to buttress roots	No works	B1
T67	Oak	13	650*	1	3	6	5	5	40+	A	A	EM	Major deadwood Asymmetric crown area Old stem wound visible Constriction wounds at 1m & 1.5m Epicormic growth on stem Debris piled in rooting area	No works	B2

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T68	Hornbeam	11	850*	MS	3.5	4	3	4	40+	L	A/P	M	Tree appears in decline Asymmetric crown area Multi stemmed tree at ground level Included branch / stem union Branch cavity with decay	No works	B3
T69	Oak	10	600*	1	4	6	4	6	40+	A	A	EM	Asymmetric crown area Heavily ivy clad crown / stem	No works	B2
T70	Oak	14	800*	1	5	7	6	6	40+	A	A	M	Major deadwood Asymmetric crown area Twin stemmed tree at 3m Ivy growing on stem	No works	B2
T71	Oak	14	900*	1	4	5	4	6	40+	A	A	M	Major deadwood Asymmetric crown area Twin stemmed tree at 4.5m Burring to stem Epicormic growth on stem Ivy growing on stem	No works	B2
T72	Oak	14	400*	1	4	5	3	6	40+	A	A/P	EM	Asymmetric crown area Twin stemmed tree at 0.5m Stems rubbing against one another	No works	B3
T73	Oak	14	1100*	1	6	8	4	6	40+	A	A	M	Major deadwood Asymmetric crown area Multi stemmed tree at 5m Heavily ivy clad crown / stem	No works	A3
T74	Oak	10	650*	1	2	7	5	5	40+	A	A	EM	Asymmetric crown area Twin stemmed tree at 2.5m	No works	B2
T75	Oak	10	700*	1	2	7	4	7	40+	A	A	M	Moderate deadwood Asymmetric crown area Epicormic growth on stem	No works	B2
T76	Oak	8.5	550*	1	4	5	5	5	40+	A	A	EM	Moderate deadwood Asymmetric crown area Epicormic growth on stem	No works	B2
T77	Oak	8.5	650*	1	7	4	6	4	40+	A	A	EM	Asymmetric crown area Twin stemmed tree at 4.5m Ivy growing on stem	No works	B2
T78	Oak	12	550*	1	5	5	7	4	40+	A	A	EM	Moderate deadwood Asymmetric crown area Smaller side stem	No works	B2

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T79	Oak	12	650*	1	8	4	7	8	40+	A	A	EM	Moderate deadwood Asymmetric crown area Multi stemmed tree at 0.5m & 3m Stem wound with decay Ivy growing on stem	No works	B2
T80	Oak	12	450*	1	6	3	6	5	40+	A	A	EM	Moderate deadwood Asymmetric crown area Multi stemmed tree at 2m	No works	B3
T81	Oak	12	500	1	6.5	6	5	6.5	40+	A	A	EM	Moderate deadwood Asymmetric crown area Multi stemmed tree at 2.5m	No works	B3
T82	Oak	5	140*	1	2	2	2	1	40+	A	A	SM	Asymmetric crown area semi mature tree of no particular merit growing near to the southern site boundary. The tree is of average form, has a moderate remaining life expectancy and some potential	No works	C1
T83	Oak	7	640*	1	5	3.5	4	4	<10	A	P	EM	Moderate deadwood Asymmetric crown area Epicormic growth on stem Major stem wound with decay, major soil erosion below tree This tree may be structurally unsound and is not worthy of consideration during the planning process	Undertake further investigations to determine extent of decay	U
T84	Oak	14	500, 500	2	6	5	5	5	40+	A	A	M	Asymmetric crown area Twin stemmed tree at ground level Ivy growing on stem	Remove to allow for proposed development	B2
T85	Oak	13	750	1	8	9	8	9	40+	A	A	M	Moderate deadwood Asymmetric crown area Multi stemmed tree at 2m	Remove to allow for proposed development	B2
T86	Oak	12	300*	1	5	5	5	5	40+	A	A	EM	Asymmetric crown area Multi stemmed tree at 2.5m	No works	C1
T87	Oak	12	350*	1	5	5	5	5	30-40	A	A	EM	Asymmetric crown area Multi stemmed tree at 3m Epicormic growth on stem Bark wound with early decay	No works	C1
T88	Oak	12	1000*	1	10	9	10	10	40+	A	A	M	A good quality mature tree with a large spreading canopy. This tree is growing close to a field corner and would benefit from halo clearance of trees around it to improve its growing conditions and increase its visual amenity.	No works	A3

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T89	Oak	14	700*	MS	4	6	6	5	40+	A	A	M	Major deadwood Asymmetric crown area Multi stemmed tree at 1.5m	No works	B3
T90	Oak	14	220*	2	3	3	2	2	40+	A	A/P	EM	Asymmetric crown area	No works	C1
T91	Oak	13	730*	1	6.5	7	6	7	40+	A	A	M	Moderate deadwood Asymmetric crown area Multi stemmed tree at 5m Ivy growing on stem	No works	B2
T92	Oak	12	700*	2	5	6.5	3	4	40+	A	A	M	Moderate deadwood Asymmetric crown area Twin stemmed tree at ground level Old bark wound with decay Epicormic growth on stem	No works	B3
T93	Oak	12	650*	2	5.5	3	3.5	4.5	40+	A	A	EM	Moderate deadwood Asymmetric crown area Twin stemmed tree at ground level Epicormic growth on stem	No works	B3
T94	Oak	14	650*	1	4	5	3	3	40+	A	A	EM	Moderate deadwood Asymmetric crown area Wounding to branches Heavily ivy clad crown / stem	No works	B2
T95	Oak	12	390	1	5	5	3	4	40+	A	A	EM	Moderate deadwood Asymmetric crown area Epicormic growth on stem An early mature tree of above average merit growing near to the southern site boundary. The tree is of average form, has a long remaining life expectancy and long-term potential	No works	B2
T96	Oak	15	470	1	7	4	2	4	40+	A	A	EM	Asymmetric crown area Wounding to branches Multi stemmed tree at 2m Epicormic growth on stem	No works	B2
T97	Ash	12	680*	1	9	6	4	7	40+	A	A	EM	Moderate deadwood Asymmetric crown area Multi stemmed tree at 4m	No works	B1
T98	Oak	6	170*	1	4	4	4	4	<10	A	P	SM	Low amenity / landscape value Major stem deformity This tree has extremely poor form and is not worthy of consideration during the planning process	Remove	U



Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T99	Oak	12	330*	1	4.5	4.5	3	5	40+	A	A	EM	Asymmetric crown area Multi stemmed tree at 3.5m Heavily ivy clad crown / stem	No works	B3
T100	Oak	15	950*	1	5.5	6	5	5	40+	A	A	M	Moderate deadwood Asymmetric crown area Multi stemmed tree at 5m Epicormic growth on stem Basal growth on buttress roots Ivy growing on stem	No works	B1
T101	Oak	14	600*	1	5.5	5	4	5	40+	A	A	EM	Moderate deadwood Asymmetric crown area Multi stemmed tree at 3.5m Epicormic growth on stem Basal growth on buttress roots Heavily ivy clad crown / stem	No works	B2
T102	Oak	14	200*	1	3	2	2	1	40+	A	A/P	SM	Low amenity / landscape value Asymmetric crown area	No works	C1
T103	Oak	16	700*	1	6	6	7	5	40+	A	A	M	Moderate deadwood Asymmetric crown area Multi stemmed tree at 2.5m Major stem wound with decay	No works	B3
T104	Oak	16	290*	1	4	5	2	5	40+	A	A	EM	Asymmetric crown area Suppressed by adjacent vegetation Twin stemmed tree at 2.5m	No works	B3
T105	Oak	18	740*	1	6.5	6.5	5	6	40+	A	A	M	Moderate deadwood Asymmetric crown area Twin stemmed tree at 2m	No works	B3
T106	Oak	16	350*	1	4	4.5	1.5	3.5	30-40	A	A/P	EM	Asymmetric crown area Suppressed by adjacent vegetation Epicormic growth on stem Bark wound with early decay Ivy growing on stem	No works	C1
T107	Willow	6	750*	MS	5	5	6	5	30-40	P	P	M	A collapsed multi-stemmed willow	No works	U

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T108	Oak	16	1200*	1	7	7	8	7	40+	A	A	M	Moderate deadwood Asymmetric crown area Branch epicormic growth on stem Old pruning wounds to scaffold / stem Epicormic growth on stem A mature tree of high merit growing beyond the northern site boundary. The tree is of average form, has a long remaining life expectancy and long-term potential	No works	A3
T109	Removed off-site tree														
T110	Oak	10	850*	1	5	5	4	5	40+	A	A	M	A mature off-site tree that has been heavily reduced	No works	B3
T111	Oak	10	750*	1	2	4	7.5	5	40+	A	A	M	Moderate deadwood Asymmetric crown area Suppressed by adjacent vegetation Tree leaning at degrees 15 Epicormic growth on stem Old pruning wounds to scaffold / stem Debris piled in rooting zone	No works	B2
T112	Removed off-site tree														
T113	Removed off-site tree														
T114	Removed off-site tree														
T114	Oak	9	400*	1	4	4	5.5	4.5	40+	A	A	EM	A mature tree of average merit growing beyond the north-western site boundary. Moderate deadwood Asymmetric crown area Epicormic growth on stem Ivy growing on stem	No works	B3
T115	Oak	18	680*	1	5.5	4	7	6.5	40+	A	A	M	A mature tree of average merit growing beyond the north-western site boundary. Moderate deadwood Asymmetric crown area Epicormic growth on stem Ivy growing on stem	No works	B2

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T116	Oak	16	880*	1	8	7	8	7	40+	A	A	M	Moderate deadwood Asymmetric crown area Multi stemmed tree at 3.5m Ivy growing on stem A mature tree of above average merit growing near to the northern site boundary. The tree is of average form, has a long remaining life expectancy and long-term potential	No works	B2
T117	Oak	11	540*	1	4	5	4.5	5.5	40+	A	A	M	A mature tree growing to the southern side of the pond Moderate deadwood Asymmetric crown area Twin stemmed tree at 2.5m Epicormic growth on stem Ivy growing on stem	No works	B3
T118	Willow	7	750*	MS	2	9	6	5	<10	P	P	M	A collapsed multi-stemmed willow growing near the pond.	Remove	U
T119	Willow	8	450*	2	7	5	2	3	<10	P	P	M	A collapsed multi-stemmed willow growing near the pond.	No works	U
T120	Willow	7.5	250*	MS	3	2	2	3	<10	P	P	M	A collapsed multi-stemmed willow growing near the pond.	No works	U
T121	Willow	7.5	180*	1	3	3	2	2	<10	P	P	M	A collapsed multi-stemmed willow growing near the pond.	Remove	U
T122	Oak	20	1000*	1	9	8	5	7	40+	A	A	M	A mature tree of high merit growing beyond the north-western site boundary. Major deadwood Asymmetric crown area Multi stemmed tree at 5m Heavily ivy clad crown / stem	No works	A3
T123	Oak	10	550*	1	2	3	4	6	40+	A	A	EM	An early-mature tree of high merit growing beyond the north-western site boundary. Moderate deadwood Asymmetric crown area Heavily ivy clad crown / stem	No works	B2
T124	Oak	18	600*	1	3	3	2	5	40+	A	A	EM	An early-mature tree of high merit growing beyond the north-western site boundary. Moderate deadwood Asymmetric crown area Heavily ivy clad crown / stem	No works	B2

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T125	Oak	18	900*	2	7	6	6	5	40+	A	A	M	Moderate deadwood Asymmetric crown area Twin stemmed tree at ground level Heavily ivy clad crown / stem	No works	B2
T126	Ash	18	250*	1	3.5	3	2	2	40+	A	A	EM	Asymmetric crown area Smaller side stem ivy growing on stem See Notes 1 & 2	No works	C1
T127	Oak	5	240*	1	2	2	3	4	40+	A	A	SM	Low amenity / landscape value Snapped branch in crown Twin stemmed tree at 2m Epicormic growth on stem	No works	C1
T128	Oak	7.5	450*	1	3	4.5	3.5	2	30-40	A	A	EM	Ground levels reduced to south-eastern side and manure heap close to this tree. Asymmetric crown area Epicormic growth on stem Ivy growing on stem	No works	B3
T129	Oak	8.5	400*	1	3	2	5	4	30-40	A	A	EM	Ground levels reduced to south-eastern side and manure heap close to this tree. Asymmetric crown area Twin stemmed tree at 2.5m	No works	B3
T130	Ash x 4	14	Ave 350	MS	4	5	6	5	20-30	A	A/P	M	Moderate deadwood Asymmetric crown area Twin stemmed tree at ground level & 1m Major basal cavity with decay A mature tree of average merit growing near to the northern site boundary. The tree is of indifferent form, has a moderate remaining life expectancy and some potential	No works	B3
T131	Oak	9	1100*	2	4	5	7	6	40+	A	A	M	A mature tree near to the northern site boundary to the southern side of a wooded area. Moderate deadwood Asymmetric crown area Suppressed by adjacent vegetation Multi stemmed tree at 2.5m Twin stemmed tree at ground level Basal cavity with decay	No works	B3
T132	Oak	8	650	3	4	3	6	1.5	<10	L	P	EM	A mature tree that has been reduced to 5m in height Storm damage / main stem lost Woodpecker holes Epicormic growth on stem	Remove	U

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T133	Oak	12	250, 200, 150	1	2.5	3	2.5	1	40+	A	A	SM	A multi-stemmed near to the northern site boundary to the southern side of a wooded area. Asymmetric crown area Storm damage / main stem lost Snapped branch in crown Epicormic growth on stem	No works	C1
T134	Hornbeam	12	700*	MS	5	3	2	3	20-30	A	P	M	A mature tree near to the northern site boundary to the southern side of a wooded area. Asymmetric crown area Multi stemmed tree at ground level Included branch / stem union Epicormic growth on stem Basal growth on buttress roots	No works	C1
T135	Oak	15	670*	1	5	7	6.5	6	40+	A	A	EM	A mature tree near to the northern site boundary to the southern side of a wooded area. Moderate deadwood Asymmetric crown area Multi stemmed tree at 2.5m Basal cavity with decay	No works	B3
T136	Oak	16	450*	1	3	4	3	2	10-20	L	A	EM	A mature tree near to the northern site boundary to the southern side of a wooded area. Major deadwood Tree appears in decline Multi stemmed tree at 3 Epicormic growth on stem Ivy growing on stem	No works	C3
T137	Hornbeam	9	550*	MS	4	3	2	3	20-30	A	P	EM	Asymmetric crown area Included branch / stem union Multi stemmed tree at ground level Included branch / stem union Basal growth on buttress roots	No works	C1
T138	Oak	6	680*	1	4	4	4.5	4					Dead tree	Remove Dead	U
T139	Oak	12	300, 300, 300	MS	4	5	3.5	3.5	10-20	A	P	M	Asymmetric crown area Multi stemmed tree at ground level Basal cavity with decay	No works	C3
T140	Oak	15	190	1	4	1	1	2	40+	A	A	SM	A semi-mature tree growing within the wooded area to the northern side of the track.	No works	C1
T141	Oak	15	380	1	4	3	3.5	3	40+	A	A	SM	A semi-mature tree growing within the wooded area to the northern side of the track.	No works	C1

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T142	Oak	15	330	1	4.5	2.5	4	5	40+	A	A	SM	A semi-mature tree growing within the wooded area to the northern side of the track.	No works	C1
T143	Oak	20	550*	1	6	3	7	5	40+	A	A	M	A mature tree growing to the northern boundary of the site.	No works	B2
T144	Oak	18	650*	1	8	7	7	4.5	40+	A	A	M	A mature tree growing to the northern boundary of the site.	No works	B2
T145	Ash	20	350*	1	4	3	4.5	4	40+	A	A	M	A mature tree growing to the northern boundary of the site. This tree has a limited remaining life expectancy due to Ash Dieback Disease	No works	B2
T146	Ash	20	390*	1	2	5	7	2	40+	A	A	M	A mature tree growing to the northern boundary of the site. This tree has a limited remaining life expectancy due to Ash Dieback Disease	No works	B2
T147	Oak	20	450*	1	2	2	2	3.5	20-30	L	A	EM	An early mature tree of average merit growing beyond the eastern site boundary. The tree is of average form, has a moderate remaining life expectancy. Moderate deadwood Asymmetric crown area Suppressed by adjacent vegetation Twin stemmed tree at 4m Old pruning wounds to scaffold / stem	No works	B3
T148	Oak	20	630*	1	5	7	3	6	40+	A	A	EM	An early mature tree of average merit growing beyond the eastern site boundary. The tree is of average form, has a moderate remaining life expectancy. Moderate deadwood Asymmetric crown area Twin stemmed tree at 2m & 4.5m	No works	B2
T149	Oak	20	1000*	MS	3	7	7	6.5	40+	A	A	M	An early mature tree of average merit growing beyond the eastern site boundary. The tree is of average form, has a moderate remaining life expectancy. Moderate deadwood Asymmetric crown area Twin stemmed tree at 2m Multi stemmed tree at ground level	No works	B2
T150	Ash Falling	8	300*	1	2	3	3	4	<10	P	P	EM	A fallen dying tree.	Remove	U
T151	Oak	18	500, 500	2	7	8	8	7.5	40+	A	A	M	An early mature tree of average merit growing beyond the eastern site boundary. The tree is of average form, has a moderate remaining life expectancy. Moderate deadwood Asymmetric crown area Twin stemmed tree at ground level	No works	B2

Arboricultural Report and Tree Condition Survey for the Proposed Residential Development at Brook Farm, Daws Heath Road, Daws Heath, Essex.

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
T152	Hornbeam	16	480*	1	2	7.5	4	2	40+	A	A	EM	An early mature tree of average merit growing beyond the eastern site boundary. The tree is of average form, has a moderate remaining life expectancy. Asymmetric crown area Suppressed by adjacent vegetation Multi stemmed tree at 2.5m Epicormic growth on stem Basal growth on buttress roots	No works	B2
T153	Oak	5	640*	1	4	5	3	4	10-20	L	A	M	A dying tree that has been reduced to 5m in height	No works	B3
T154	Oak	9.5	680*	1	5	5	3	6.5	30-40	L	A	M	An early mature tree of average merit growing beyond the eastern site boundary. The tree is of average form, has a moderate remaining life expectancy. Moderate deadwood Tree appears in early decline Wounding to branches	No works	B2
T155	Oak	11	800*	1	5	4	6	8	40+	A	A	M	An early mature tree of average merit growing beyond the eastern site boundary. The tree is of average form, has a moderate remaining life expectancy. Major deadwood Asymmetric crown area Multi stemmed tree at 3m Stem cavity with decay Epicormic growth on stem	No works	B1
T156	Oak	10	750*	1	4	5	6	8	20-30	L	A	M	An early mature tree of average merit growing beyond the eastern site boundary. The tree is of average form, has a moderate remaining life expectancy. Moderate deadwood Tree appears in early decline Wounding to branches	No works	B2
T157	Oak	9	500*	1	5	3	2	5	40+	A	A	EM	An early mature tree of average merit growing beyond the eastern site boundary. The tree is of average form, has a moderate remaining life expectancy. Moderate deadwood Asymmetric crown area Suppressed by adjacent vegetation Multi stemmed tree at 4.5m Heavily ivy clad crown / stem	No works	B2
TG1	Row of Crack Willows	12	750*	1,2 & MS	8	8	8	8	20-30	A	A/P	M	A row of mature trees (reduced to 1.5m growing along an internal field boundary. The trees are multi-stemmed but due to lack of management they are falling apart with the stem collapsing	Remove and replace with suitable new planting	C2

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
TG2	Mixed Species Group	12	300*	MS	4	4	4	4	40+	A	A	EM	A group of early mature trees of average merit growing along an internal field boundary. Species include oak, hornbeam. The trees are of average form, have moderate to long remaining life expectancies and moderate to long term potential	No works	B3
TG3	Oak x 5	9	550*	MS	5	5	5	5	40+	A	A	EM	A linear group of semi-mature oak trees along an internal field boundary. The trees are of average form, have moderate to long remaining life expectancies and moderate to long term potential	No works	B2
TG4	Oak	10	550*	MS	6	6	6	6	40+	A	A	EM	A group of semi-mature oak trees growing within a strip of unmanaged ground between two fields. The trees are of average form, have moderate to long remaining life expectancies and moderate to long term potential	No works	B2
TG5	Mixed Species Group	4.5	85*	MS	2	2	2	2	40+	A	A	SM	A densely group of semi mature trees of no particular merit growing near to the northern site boundary. Species include: Elm, Maple, Holly, and Blackthorn & Bramble.	No works	C2
TG6	Willow	5	250	MS	5	5	5	5	10-20	A	P	EM	Multi stemmed partially collapsed trees near a pond	No works	C3
TG7	Ash	10	300-750	1, 2 & MS	5	5	5	5	20-30	A/L	A/P	M	A linear group of early mature trees of average merit growing beyond the eastern site boundary. These trees have a limited remaining life expectancy due to Ash Dieback Disease	No works	C2
W1	Mixed Species Woodland	10	300-400	1, 2 & MS	4	4	4	4	40+	A	A	EM	Early mature woodland to the northern site boundary. The trees are of average form, have long remaining life expectancies and long-term potential.	No works	B2
W2	Mixed Species Woodland	10	500*	MS	5	5	5	5	40+	A	A	M	Mature woodland (Dodds Grove) designated Ancient Woodland of high merit growing beyond the stream that runs to the eastern part of the southern site boundary. Dodds Grove – is also designated an SSSI (Site of Special Scientific Interest) and is also a LNR (Local Nature Reserve)	No works	A2
H1	Mixed Species Hedge	3	85*	MS	2	2	2	2	40+	A	A	M	Dense established mature unmanaged ivy-covered hedge to the front western highway boundary. Species include blackthorn, elder, holly, maple & bramble,	Remove section to allow for access to proposed development.	B2
H2	Mixed Species Hedge	3	100*	MS	2	2	2	2	40+	A	A	EM	Hedgerow forming internal field boundary. Species include blackthorn, elder, holly, maple & bramble, the hedge is unmanaged with numerous trees established which have compromised the value of the hedgerow.	Remove section to allow for access to proposed development.	C1
H3	Leyland cypress hedge	3	100*	MS	2	2	2	2	40+	A	A	EM	A formal internal cypress hedge that has been managed by regular pruning.	Remove to allow for proposed development.	C3



Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
H4	Mixed Species Hedge	6	130*	MS	2	2	2	2	40+	A	A	EM	Early mature hedging forming internal field boundary. Species include hawthorn, maple, willow & bramble, the hedge is informal, well-formed and has a moderate remaining life expectancy and moderate potential. Some short sections of the hedgerow are unmanaged allowing the willows and field maples to become dominant	Remove section to allow for proposed development.	C1
H5	Mixed Species Hedge	4.5	100*	MS	2	2	2	2	40+	A	A	EM	Early mature hedging forming internal field boundary. Species include hawthorn, maple, willow & bramble, some short sections of the hedgerow are unmanaged allowing the willows and field maples to become dominant	Remove to allow for proposed development.	C1
H6	Mixed Species Hedge	3	100*	MS	2	2	2	2	40+	A	A	M	Mature hedging forming internal field boundary. Species include hawthorn, elder, maple & bramble.	Remove to allow for proposed development.	C1
H7	Mixed Species Hedge	3	85*	MS	1	1	1	1	40+	A	A	EM	Early mature hedging forming internal field boundary to northern and southern side of access track. Species include hawthorn & some hazel, the hedge is well-managed	Remove to allow for proposed development.	C1
H8	Mixed Species Hedge	4	100*	MS	1.5	1.5	1.5	1.5	40+	A	A	M	Early mature hedging forming internal field boundary to southern side of track Species include hawthorn field maple & some hazel, the hedge is, well-managed	No works	C1
H9	Hawthorn hedge	3	85*	MS	1.5	1.5	1.5	1.5	40+	A	A	EM	Early mature hedging forming internal field boundary,	Remove to allow for proposed development.	C1
H10	Mixed Species Hedge	3.5	85*	MS	2	2	2	2	40+	A	A	EM	Early mature hedging forming internal field boundary. Species include hawthorn, maple, elder & bramble, the hedge is informal, well-formed and has a moderate remaining life expectancy and moderate potential	No works	C1
H11	Mixed Species Hedge	2.5	100*	MS	2	2	2	2	40+	A	A	EM	Unmanaged hedging forming internal field boundary along an earth bank Species include hawthorn, hornbeam, elder & bramble, due to lack of management this field boundary has spread and become a linear group of trees,	No works	B2
H12	Mixed Species Hedge	3.5	85*	MS	2	2	2	2	40+	A	A	EM	Mature hedging forming internal site boundary. Species include: hawthorn, hornbeam, maple, elder & bramble, the hedge is informal, well-formed and has a moderate remaining life expectancy and moderate potential	No works	C1
H13	Mixed Species Hedge	5	100*	MS	2	2	2	2	40+	A	A	EM	Early mature unmanaged northern field boundary. Species include: Ash Hawthorn, Hornbeam, Maple, Holly, Elder & Bramble	Remove section to allow for proposed development.	C1
H14	Mixed Species Hedge	3	85*	MS	2	2	2	2	40+	A	A	EM	Early mature hedging forming internal site boundary. Species include: Blackthorn, Hawthorn, Hornbeam, Maple, Dogwood, Elder & Bramble, the hedge is informal, well-formed and has a moderate remaining life expectancy and moderate potential	No works	C1

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Proposed Works	BS Cat
H15	Mixed Species Hedge	4	85*	MS	2	2	2	2	40+	A	A	EM	Low amenity / landscape value Dense established hedge Ivy growing on stem Early mature hedging forming internal site boundary. Species include: Blackthorn, Hawthorn, Hornbeam, Maple, Dogwood, Elder & Bramble, the hedge is informal, well-formed and has a moderate remaining life expectancy and moderate potential	No works	B2
H16	Mixed Species Hedge	3	85*	MS	1.5	1.5	1.5	1.5	40+	A	A	EM	Low amenity / landscape value Dense established hedge Ivy growing on stem Early mature hedging forming internal site boundary. Species include: Hawthorn, Blackthorn, Oak, Ash, Wild Rose & Bramble, the hedge is informal, well-formed and has a moderate remaining life expectancy and moderate potential	No works	C1

**Table 1 Cascade chart for tree quality assessment**

<b>Trees unsuitable for retention (See Note)</b>				
<b>Category and definition</b>	<b>Criteria (including subcategories where appropriate)</b>			<b>Identification on plan</b>
<b>Category U</b> Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<ul style="list-style-type: none"> <li>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</li> <li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li> <li>Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality</li> </ul> NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.			<b>Red</b>
<b>Trees to be considered for retention</b>				
	<b>1 Mainly arboricultural qualities</b>	<b>2 Mainly landscape qualities</b>	<b>3 Mainly cultural values, including conservation</b>	
<b>Category A</b> Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands See Table 2 of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	<b>Green</b>
<b>Category B</b> Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	<b>Blue</b>
<b>Category C</b> Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	<b>Grey</b>

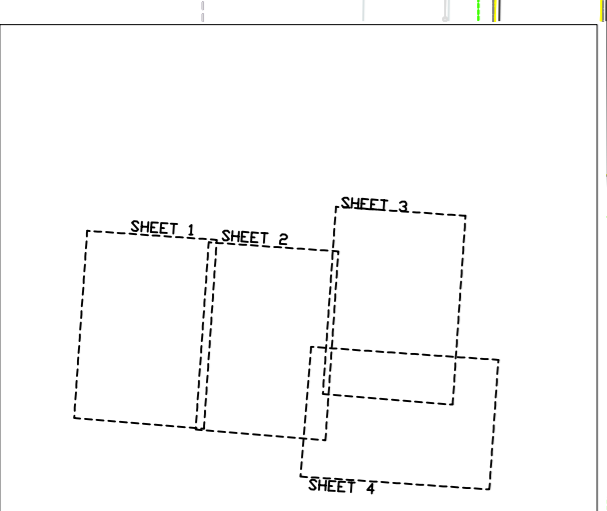
From BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations

**KEY**

Tree No.	Species	Hgt (m)	Stem Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Vig.	Form	Age Class	Description	Recommendations	BS Cat
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- Tree No.** Tree number identified on copy of Tree Constraint Plan (TCP).
- Species:** Common/English name
- Hgt (m)** Height of tree (measured to nearest whole metre)
- Stem Dia (mm)** Diameter of stem/trunk measured at 1.5 metres above ground level (or immediately above the root flare for multi-stemmed trees). If stem diameters have to be estimated a (\*) will follow the numerical figure. (E.g. 450mm\*)
- No. of Stems** Number of stems
- Crown Spread** Maximum branch extent measured at the four compass points
- ERCY:** Estimated Remaining Contribution in Years
- Vigour**
- |   |      |
|---|------|
| G | Good |
| A | Fair |
| L | Low  |
| D | Dead |
- Form**
- |   |      |
|---|------|
| G | Good |
| A | Fair |
| P | Poor |
| D | Dead |
- Age Class**
- |    |              |
|----|--------------|
| Y  | Young        |
| SM | Semi-mature  |
| EM | Early mature |
| M  | Mature       |
| OM | Over Mature  |
| V  | Veteran      |
- BS Category** See Table 1 Cascade chart for tree quality assessment  
From BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations

## **Tree Survey Plan**



**Tree Survey Key**

- Extent of Tree Canopy
- Theoretical Root Protection Area (BS5837)
- BS 5837 Category (See Below)
- Tree Survey Number
- Tree Name

**BS 5837 Category**  
(See Tree Survey for further details)

**Category U - Red Stem Disc**  
Those in such a condition that any existing value would be lost within 10 years and which should in the current context, be removed for reasons of sound arboricultural management.

**Category A - Green Stem Disc**  
Those of high quality and value - in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).

**Category B - Blue Stem Disc**  
Those of moderate quality and value - those in such a condition as to make a significant contribution (a minimum of 20 years is suggested).

**Category C - Grey Stem Disc**  
Those of low quality and value - currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm.

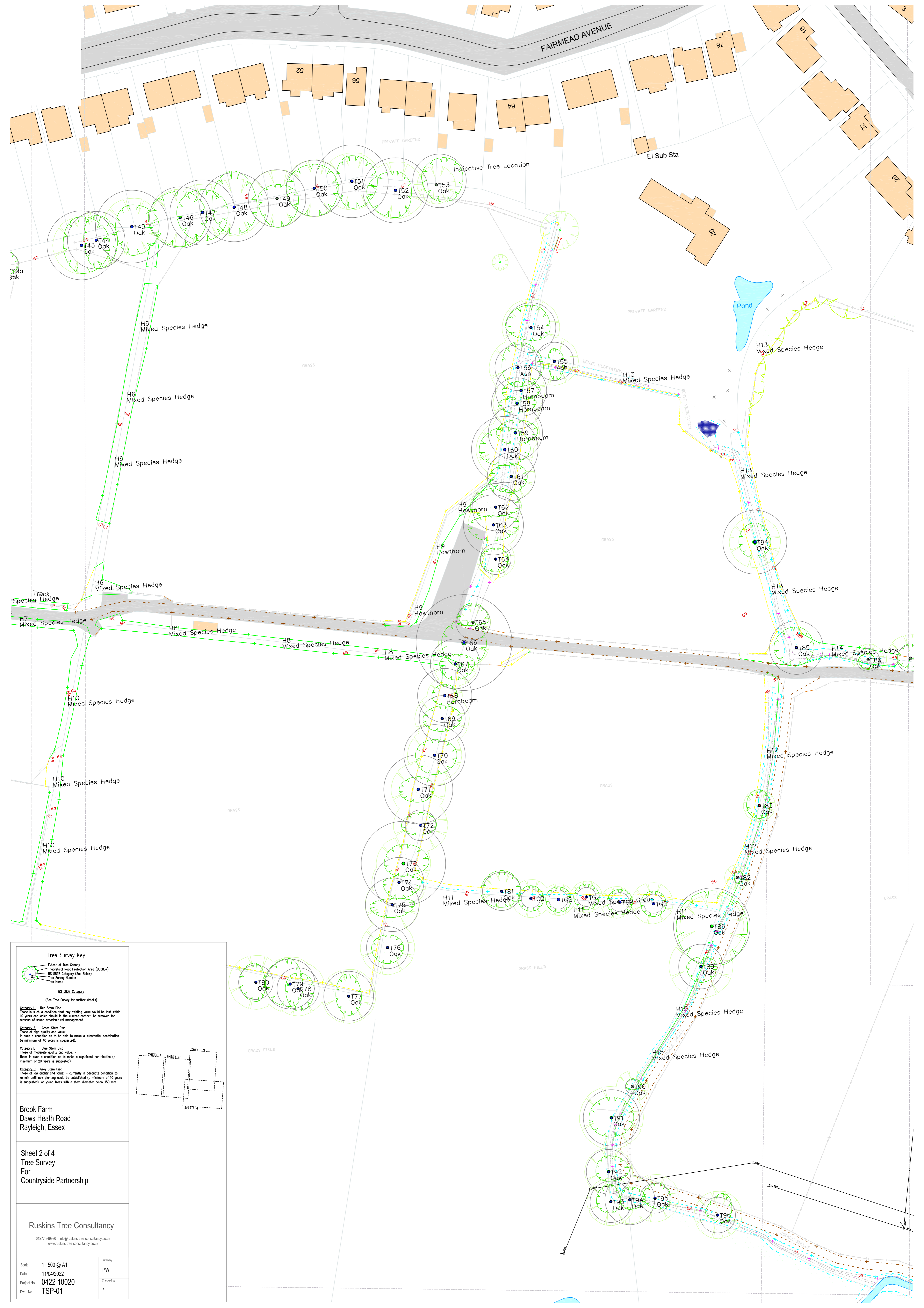
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Rayleigh, Essex

Sheet 1 of 4  
Tree Survey  
For  
Countryside Partnership

**Ruskins Tree Consultancy**  
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Project No: 0422 10020  
Dwg. No: TSP-01

Drawn by: PW  
Checked by: \*



**Tree Survey Key**

- Extent of Tree Canopy
- Theoretical Root Protection Area (BS5837)
- BS 5837 Category (See Below)
- Tree Survey Number
- Tree Name

**BS 5837 Category**  
(See Tree Survey for further details)

**Category 1 - Red Stem Disc**  
Those in such a condition that any existing value would be lost within 10 years and which should in the current context, be removed for reasons of sound arboricultural management.

**Category 2 - Green Stem Disc**  
Those of high quality and value - in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).

**Category 3 - Blue Stem Disc**  
Those of moderate quality and value - those in such a condition as to make a significant contribution (a minimum of 20 years is suggested).

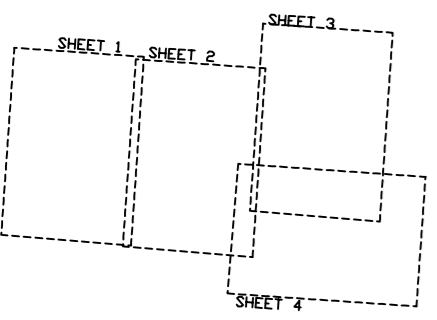
**Category 4 - Grey Stem Disc**  
Those of low quality and value - currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm.

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Sheet 2 of 4  
Tree Survey  
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**Tree Survey Key**

- Extent of Tree Canopy
- Theoretical Root Protection Area (RPSA)
- RPSA Category (See Below)
- Tree Survey Number
- Tree Name

**RPSA Category**  
(See Tree Survey for further details)

**Category U - Red Stem Disc**  
Those in such a condition that any existing value would be lost within 10 years and which should in the current context, be removed for reasons of sound arboricultural management.

**Category A - Green Stem Disc**  
Those of high quality and value - in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).

**Category B - Blue Stem Disc**  
Those of moderate quality and value - those in such a condition as to make a significant contribution (a minimum of 20 years is suggested).

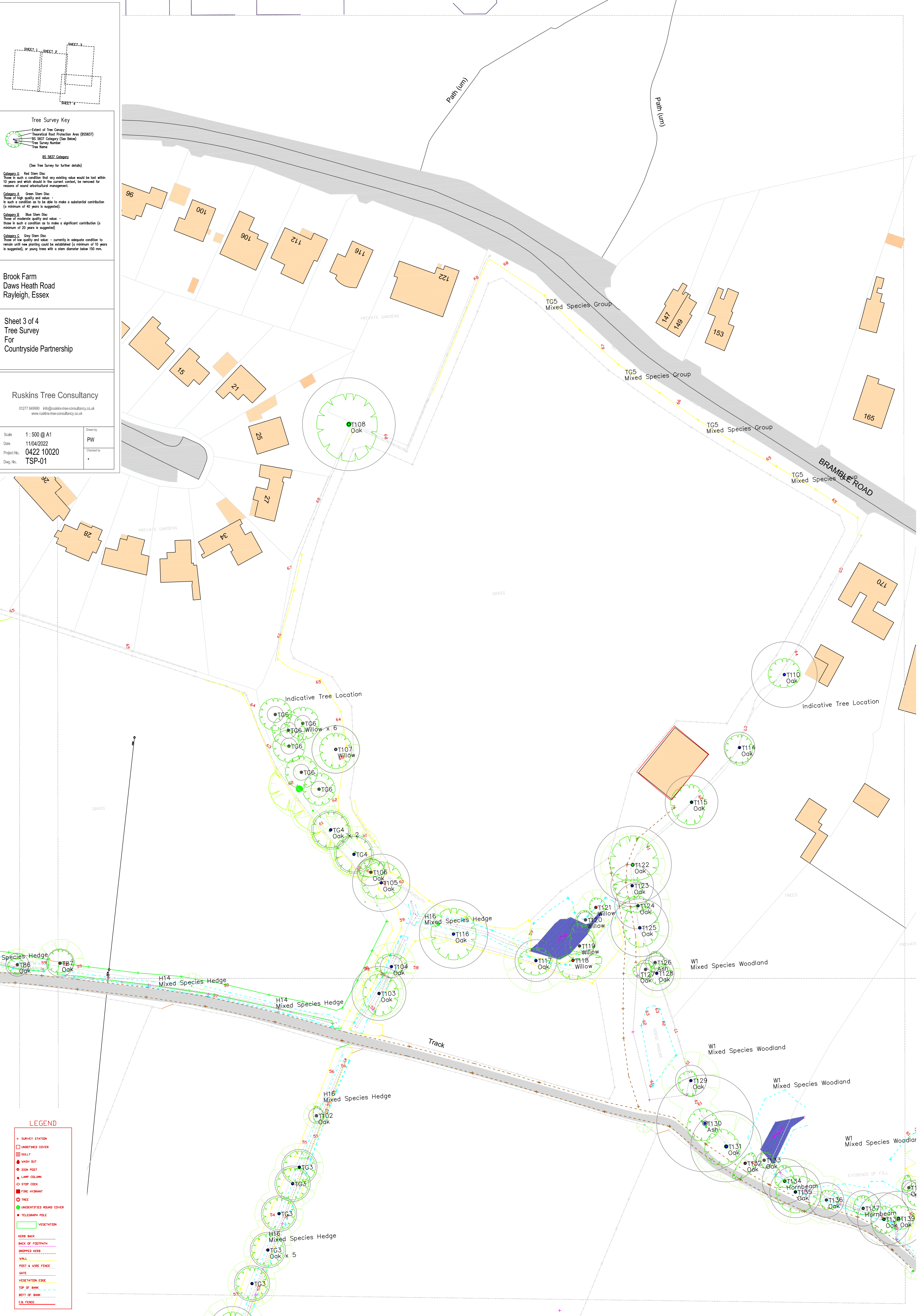
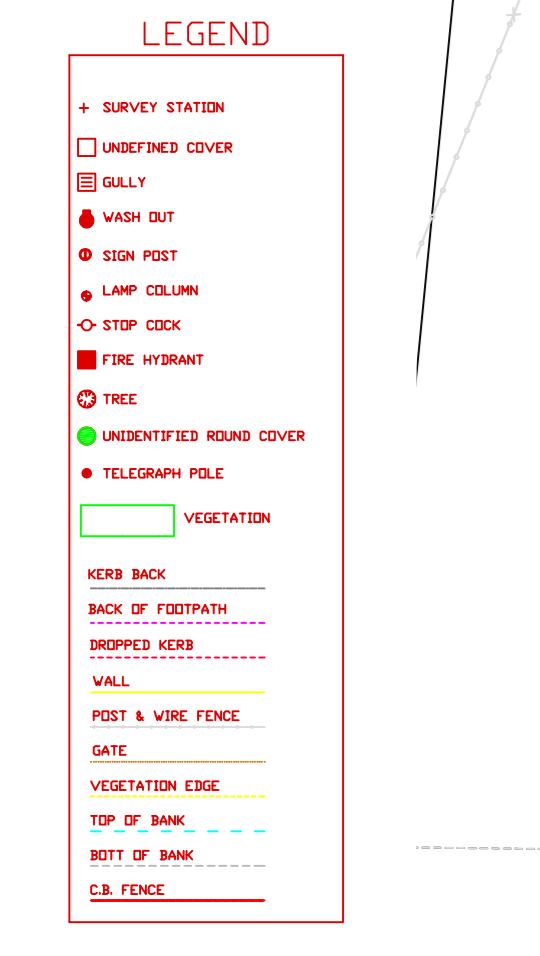
**Category C - Grey Stem Disc**  
Those of low quality and value - currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm.

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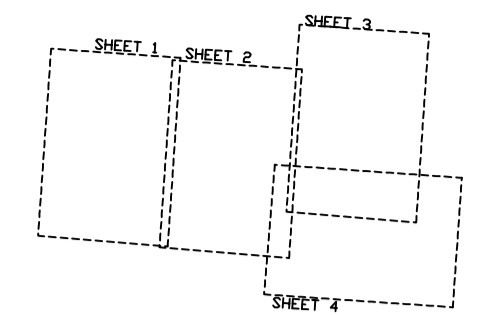
Sheet 3 of 4  
Tree Survey  
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**Tree Survey Key**

- Extent of Tree Canopy
- Theoretical Root Protection Area (BS5837)
- BS 5837 Category (See Below)
- Tree Survey Number
- Tree Name

**BS 5837 Categories**  
(See Tree Survey for further details)

**Category II - Red Stem Disc**  
Those in such a condition that any existing value would be lost within 10 years and which should in the current context, be removed for reasons of sound arboriculture management.

**Category A - Green Stem Disc**  
Those of high quality and value - in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).

**Category B - Blue Stem Disc**  
Those of moderate quality and value - those in such a condition as to make a significant contribution (a minimum of 20 years is suggested).

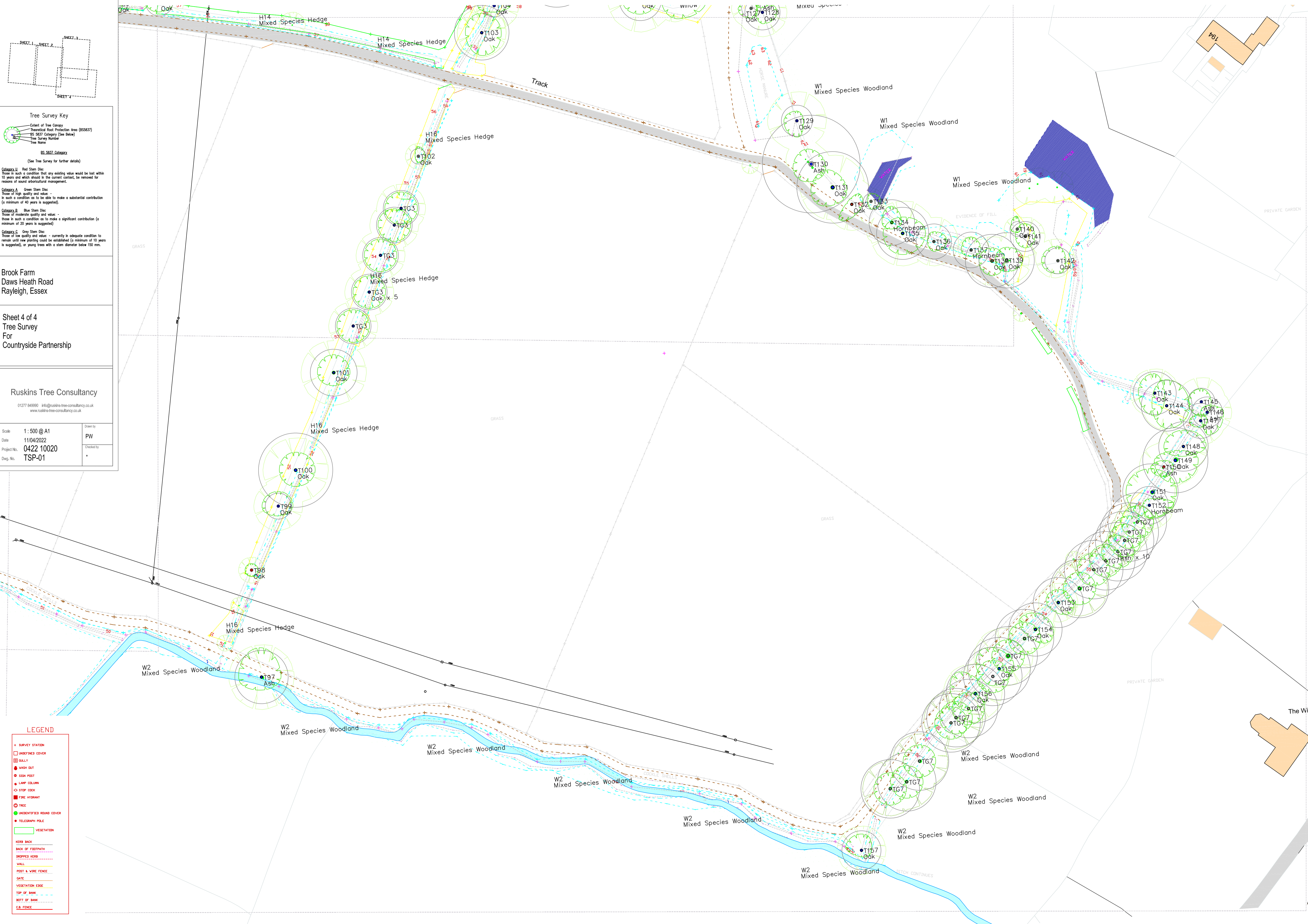
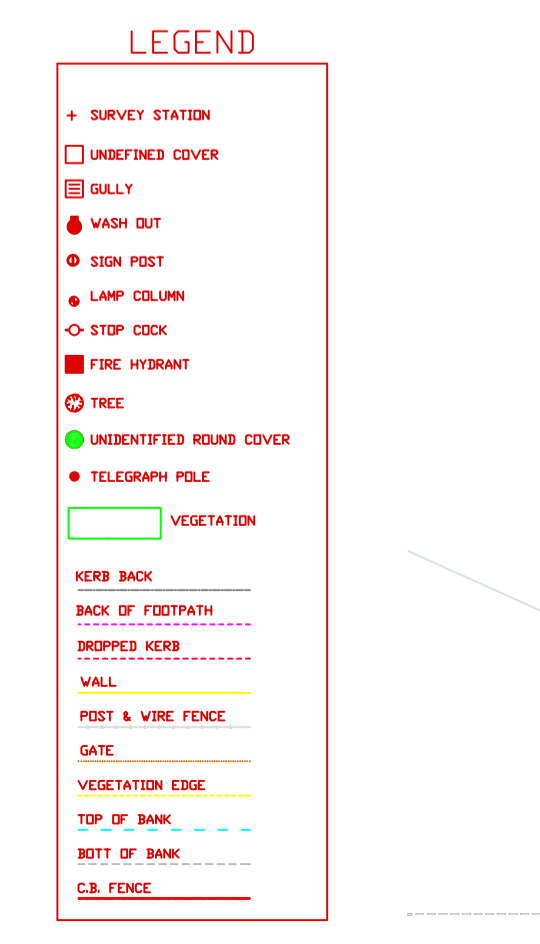
**Category C - Grey Stem Disc**  
Those of low quality and value - currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm.

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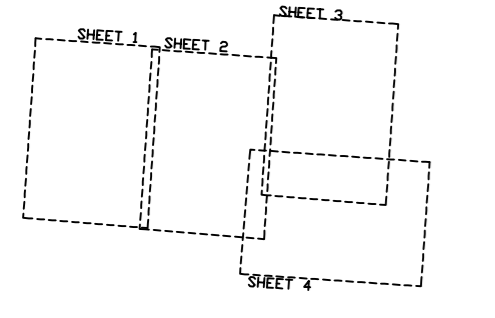
Sheet 4 of 4  
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Dwg. No.	TSP-01		



## **Tree Retention and Tree Removals Plan**



**Tree Retention and Tree Removals Plan Key**

- Tree to be retained
- Tree to be removed
- Hedgerow to be retained
- Hedgerow to be removed
- Building to be demolished

**Tree Survey Key**

- Extent of Tree Canopy
- Theoretical Root Protection Area (BS5837)
- BS 5837 Category (See Below)
- Tree Survey Number
- Tree Name

**BS 5837 Category**  
(See Tree Survey for further details)

**Category III - Red Stem Disc**  
Those in such a condition that any existing value would be lost within 10 years and which should in the current context, be removed for reasons of sound structural management.

**Category A - Green Stem Disc**  
Those of high quality and value - in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).

**Category B - Blue Stem Disc**  
Those of moderate quality and value - those in such a condition as to make a significant contribution (a minimum of 20 years is suggested).

**Category C - Grey Stem Disc**  
Those of low quality and value - currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm.

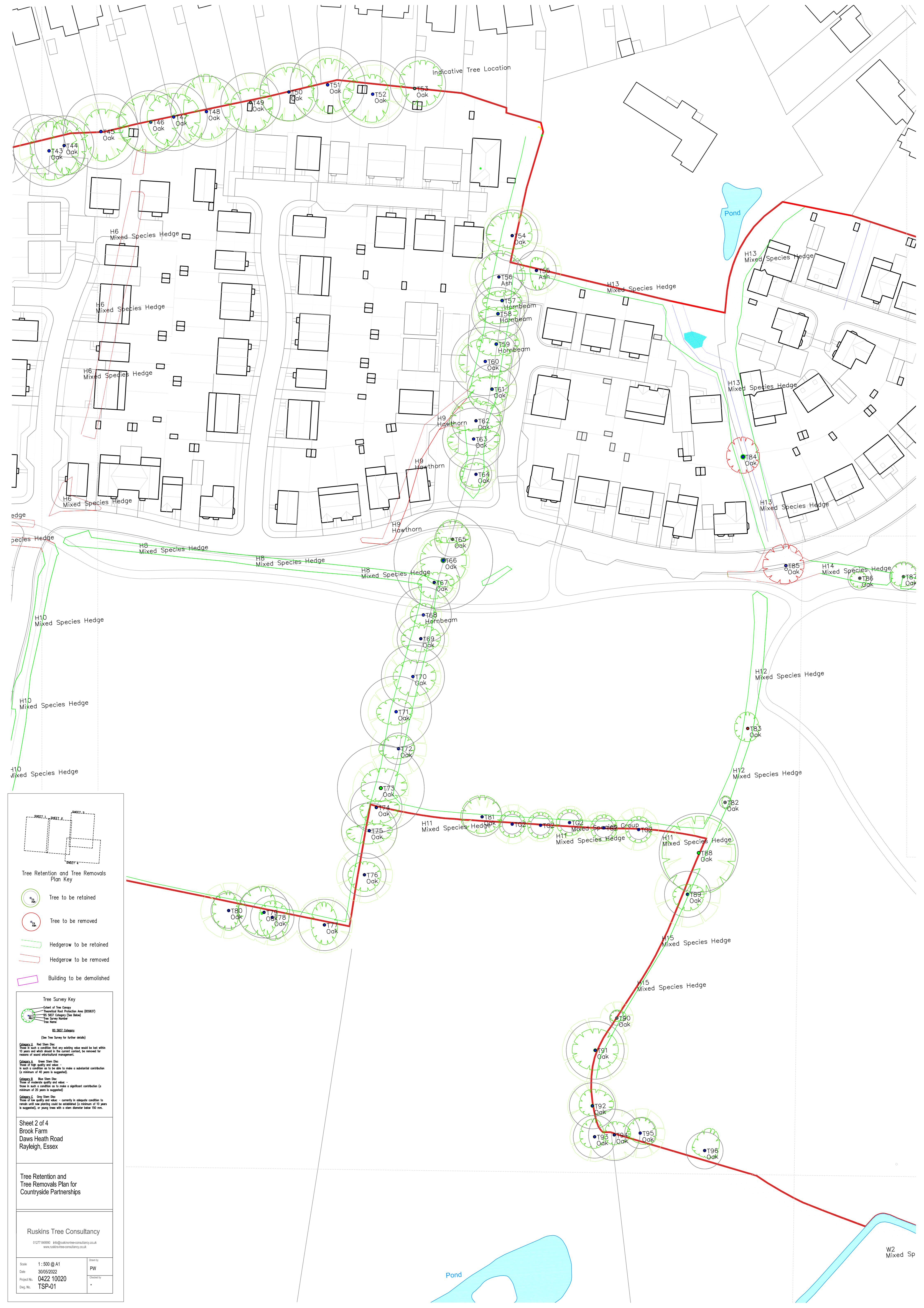
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Tree Retention and Tree Removals Plan for Countryside Partnerships

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Date: 30/05/2022  
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Dwg. No: TSP-01

Drawn by: PW  
Checked by: \*



**Tree Retention and Tree Removals Plan Key**

- Tree to be retained
- Tree to be removed
- Hedgerow to be retained
- Hedgerow to be removed
- Building to be demolished

**Tree Survey Key**

- Extent of Tree Canopy
- Theoretical Root Protection Area (BS5837)
- BS 5837 Category (See Below)
- Tree Survey Number
- Tree Name

**BS 5837 Categories**  
(See Tree Survey for further details)

- Category II - Red Stem Dec:** Those in such a condition that any existing value would be lost within 10 years and which should in the current context, be removed for reasons of sound structural management.
- Category A - Green Stem Dec:** Those of high quality and value - in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).
- Category B - Blue Stem Dec:** Those of moderate quality and value - those in such a condition as to make a significant contribution (a minimum of 20 years is suggested).
- Category C - Grey Stem Dec:** Those of low quality and value - currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 100 mm.

Sheet 2 of 4  
Brook Farm  
Daws Heath Road  
Rayleigh, Essex

**Tree Retention and Tree Removals Plan for Countryside Partnerships**

**Ruskins Tree Consultancy**  
01277 849900 info@ruskins-tree-consultancy.co.uk  
www.ruskins-tree-consultancy.co.uk

Scale: 1:500 @ A1  
Date: 30/05/2022  
Project No: 0422 10020  
Drawn by: PW  
Checked by: \*

W2 Mixed Sp

**Tree Retention and Tree Removals Plan Key**

- Tree to be retained
- Tree to be removed
- Hedgerow to be retained
- Hedgerow to be removed
- Building to be demolished

**Tree Survey Key**

01 2022 (Advised)

*(See the Survey for further details)*

**Category 1 - Red Star Tree**  
 Trees with a canopy area of 100m<sup>2</sup> or more and a trunk diameter of 100mm or more at 1.3m above ground level. These trees are considered to be of high value and should be retained wherever possible.

**Category 2 - Green Star Tree**  
 Trees with a canopy area of 50m<sup>2</sup> or more and a trunk diameter of 75mm or more at 1.3m above ground level. These trees are considered to be of medium value and should be retained wherever possible.

**Category 3 - Blue Star Tree**  
 Trees with a canopy area of 25m<sup>2</sup> or more and a trunk diameter of 50mm or more at 1.3m above ground level. These trees are considered to be of low value and should be retained wherever possible.

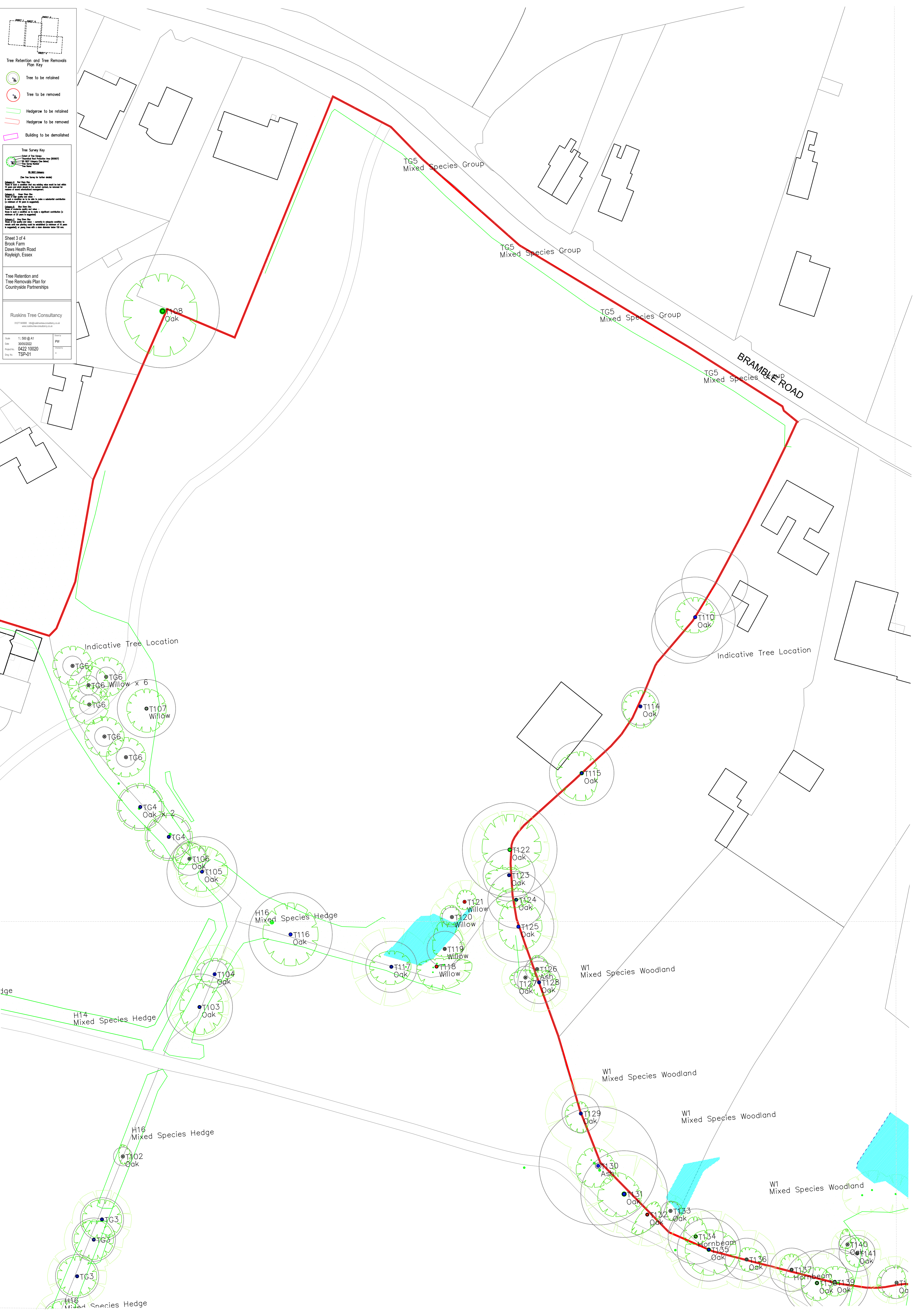
**Category 4 - Yellow Star Tree**  
 Trees with a canopy area of 10m<sup>2</sup> or more and a trunk diameter of 25mm or more at 1.3m above ground level. These trees are considered to be of very low value and should be retained wherever possible.

Sheet 3 of 4  
 Brook Farm  
 Daves Heath Road  
 Rayleigh, Essex

Tree Retention and Tree Removals Plan for Countryside Partnerships

Ruskins Tree Consultancy  
 01274 888888 | info@ruskinstreeconsultancy.co.uk  
 www.ruskinstreeconsultancy.co.uk

Scale: 1:500 @ A1	Drawn: PW
Date: 30/05/2022	Checked: PW
Project No: 0422 10020	Drawn: PW
Drawn No: TSP-01	Checked: PW



**Tree Retention and Tree Removals Plan Key**

- Tree to be retained
- Tree to be removed
- Hedgerow to be retained
- Hedgerow to be removed
- Building to be demolished

**Tree Survey Key**

- Extent of Tree Canopy
- Theoretical Root Protection Area (BS5837)
- BS 5837 Category (See Below)
- Tree Survey Number
- Tree Name
- ES 5632 Category (See Tree Survey for further details)

**Category 1 - Red Stem Disc**  
 Those in such a condition that any existing value would be lost within 10 years and which should in the current context, be removed for reasons of land reclamation/development.

**Category 2 - Green Stem Disc**  
 Those of high quality and value - in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).

**Category 3 - Blue Stem Disc**  
 Those of moderate quality and value - those in such a condition as to make a significant contribution (a minimum of 20 years is suggested).

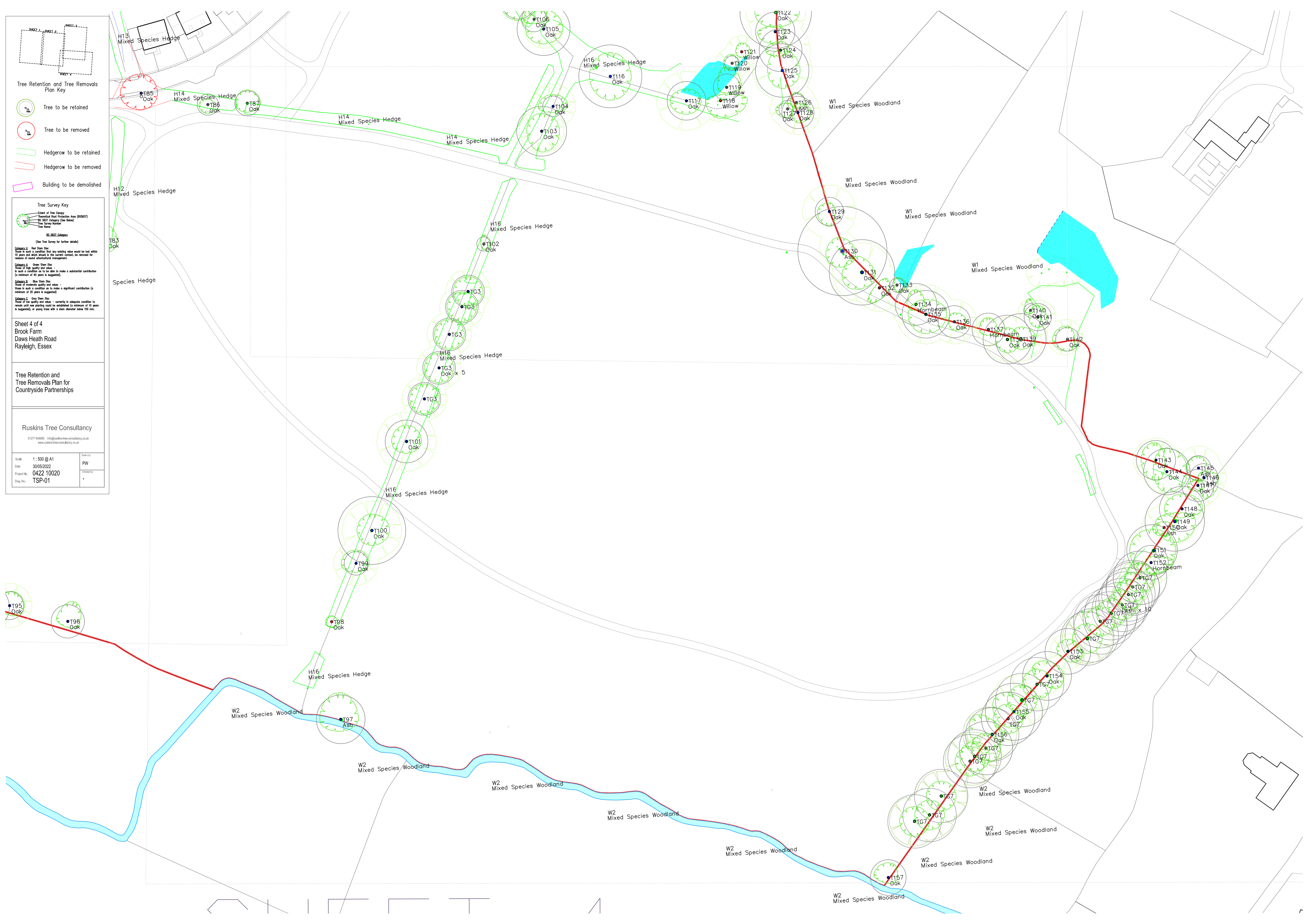
**Category 4 - Grey Stem Disc**  
 Those of low quality and value - currently in reasonable condition to retain, and new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 100 mm.

Sheet 4 of 4  
 Brook Farm  
 Daws Heath Road  
 Rayleigh, Essex

Tree Retention and  
 Tree Removals Plan for  
 Countryside Partnerships

Ruskins Tree Consultancy  
 01277 849993 info@ruskinstreeconsultancy.co.uk  
 www.ruskinstreeconsultancy.co.uk

Scale: 1:500 @ A1	Drawn: PW
Date: 30/05/2022	Checked: *
Project No: 0422 10020	
Draw No: TSP-01	



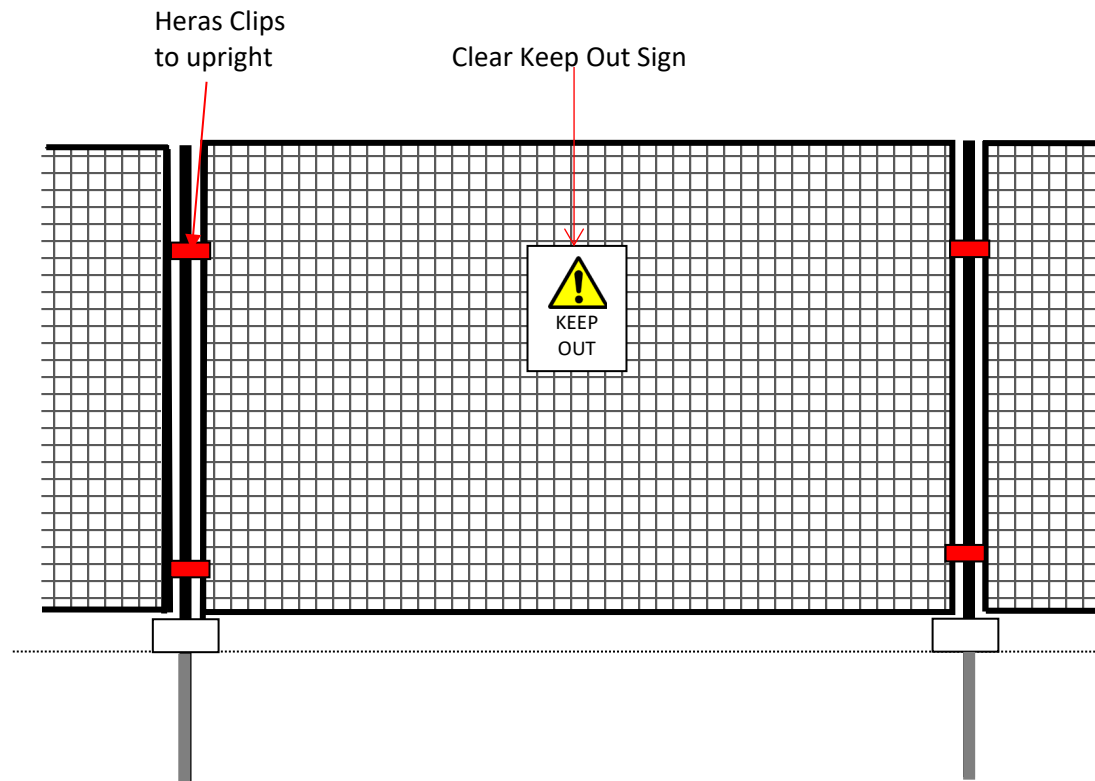
## **Appendix 2**

### **Tree Protection Fencing Specification**

#### **Tree Protection Fencing Notice**

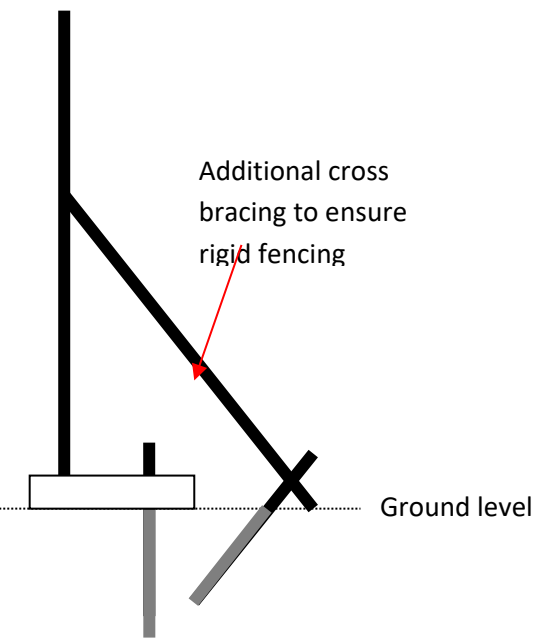
## Tree Protection Fencing Specification

### Elevation



Tree Protection Fencing should be erected as per the Tree Protection Plan prior to any works commencing or materials being delivered to site.

### Section



If concrete or rubber feet are used these must be pinned to the ground to prevent movement.



# **TREE PROTECTION AREA**



## **PLEASE KEEP OUT**

The trees in this area are protected by statutory protection and / or planning conditions. Any works in this fenced off area may result in damage to the above ground parts or root system of these trees.

Damage to these trees (above and below ground) is a breach of the planning consent and may lead to enforcement action and / or a criminal prosecution.

Please contact [info@ruskins-tree-consultancy.co.uk](mailto:info@ruskins-tree-consultancy.co.uk) for more information.