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ARBORICULTURAL ASSESSMENT

Client

Hallam Land Management Ltd

Project

Land South of Longsight Road, Langho

Date

February 2025

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Rev	Issue Status	Prepared/Date	Approved/Date
-	Draft	EC / 07/01/25	HR / 08/01/25
A	Final	EC / 25/02/25	HR / 25/02/25

1.0 INTRODUCTION

1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Hallam Land Management Ltd to present the findings of an Arboricultural Assessment and survey of trees located at Land South of Longsight Road, Langho (hereafter referred to as the site), OS Grid Ref SD 702 344.

Site Description

1.2 The site comprises of an area of grassland approximately 20.1ha in size located to the north of Langho, in the Ribble Valley. The A59 Longsight Road defines the northern boundary, with a railway line to the south beyond which are residential properties, Whitehalgh Lane to the west and a recently constructed residential development to the east.

Scope of Assessment

1.3 A tree survey and assessment of existing trees was carried out by FPCR Environment and Design on **25th October 2024** in accordance with guidance contained within British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' (hereafter referred to as BS5837).

1.4 This report has been produced to accompany an outline planning application for up to 300 dwellings with all matters reserved apart from access to, but not within, the site which will be via Longsight Road to the north.

1.5 The purpose of this report is therefore to firstly, present the results of this assessment of the existing trees' arboricultural value, based on their current condition and quality and to secondly, provide an assessment of impact arising from the proposed development of the site.

2.0 PLANNING POLICY

National Planning Policy Framework December 2024

2.1 National Planning Policy is defined by the National Planning Policy Framework (NPPF). This sets out the Government's most current and up to date planning policies for England and how these should be applied. The current NPPF is dated December 2024.

2.2 Paragraphs 10 and 11 of the NPPF state that there is a presumption in favour of sustainable development and states that for decision making, the LPA should be 'c) approving development proposals that accord with an up-to-date development plan without delay'.

2.3 In relation to arboriculture, the NPPF states that:

- 136 '*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 (footnote 52), 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'. (footnote 52: unless, in specific cases, there are clear, justifiable and compelling reasons why this would be inappropriate)*
- *193 (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 (footnote 70) and a suitable compensation strategy exists*'.
- and provides specific guidance that:
- *193 (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'.*

2.4 With reference to paragraph 193 (c), examples of what is deemed to be 'wholly exceptional' are included within Footnote 70 and provides the examples of 'infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat'.

Local Planning Policy

2.5 Local planning decisions regarding all future developments are assessed against a framework to ensure that the district or county in question is developed in a well-informed and coherently systematic manner, this may include decisions to ensure that the right number and types of houses are built and incorporating the correct type of shopping and recreation facilities, whilst protecting the local ecological resources, landscape context and intrinsic heritage value of an area.

2.6 Within the context of the adopted Core Strategy 2008 – 2028 Local Plan for Ribble Valley Borough Council the following policy relates to trees.

Policy DME1: Protecting Trees and Woodlands

There will be a presumption against the clearance of broad-leaved woodland for development proposes. The council will seek to ensure that woodland management safeguards the structural integrity and visual amenity value of woodland, enhances biodiversity and provides environmental health benefits for the residents of the borough. The council encourages successional tree planting to ensure tree cover is maintained into the future.

Where applications are likely to have a substantial effect on tree cover, the borough council will require detailed arboricultural survey information and tree constraint plans including appropriate plans and particulars. These will include the position of every tree on site that could be influenced by the proposed development and any tree on neighbouring land that is also likely to be with in influencing distance and could also include other relevant information such as stem diameter and crown spread.

The borough council will ensure that:

1. The visual, botanical and historical value, together with the useful and safe life expectancy of tree cover, are important factors in determining planning applications. This will include an assessment of the impact of the density of development, lay out of roads, access points and services on any affected trees.

2. That a detailed tree protection plan is submitted with appropriate levels of detail.

3. Site-specific tree protection planning conditions are attached to planning permissions.

3.0 SURVEY METHODOLOGY

3.1 The survey of trees has been carried out in accordance with the criteria set out in Chapter 4 of BS5837. The survey has been undertaken by a suitably qualified and experienced arboriculturist and has recorded information relating to all those trees within the site and those adjacent to the site which may be of influence to any proposals. Trees were assessed for their arboricultural quality and benefits within the context of the proposed development in a transparent, understandable, and systematic way.

3.2 Trees have been assessed as groups, hedgerows or woodland where it has been determined appropriate.

- The term group has been applied where trees form cohesive arboricultural features either aerodynamically, visually or culturally including biodiversity or habitat potential for example parkland or wood pasture.
- For the purposes of this assessment, a hedgerow is described as any boundary line of trees or shrubs less than 5m wide at the base and are managed under a regular pruning regime.
- For the purposes of this assessment woodland is described as a habitat where 'trees are the dominant plant form. The individual tree canopies generally overlap and interlink, often forming a more or less continuous canopy'[1]. Woodlands however, are not just formed of trees and generally include a great variety of other plants. These will include 'mosses, ferns and lichens, as well as small flowering herbs, grasses and shrubs'[2].

3.3 An assessment of individual trees within groups, hedgerows and woodland has been made where a clear need to differentiate between them, for example, to highlight significant variation between attributes including physiological or structural condition or where a potential conflict may arise.

BS5837 Categories

3.4 Trees, groups, hedgerows, and woodland have been divided into one of four categories based on Table 1 of BS5837, 'Cascade chart for tree quality assessment'. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below).

3.5 Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition. They are, for this reason not considered in the planning process on arboricultural grounds.

3.6 Categories A, B and C are applied to trees that should be of material consideration in the development process. Each category also having one of three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural or conservation values accordingly.

3.7 **Category (U) – (Red):** Trees which are unsuitable for retention and are 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. Trees within this category are:

1 Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

[2] http://www.countrysideinfo.co.uk/woodland_manage/whatis.htm

- Trees that have a serious irremediable structural defect such that their early loss is expected due to collapse and includes trees that will become unviable after removal of other category U trees.
- Trees that are dead or are showing signs of significant, immediate or irreversible overall decline.
- Trees that are infected with pathogens of significance to the health and/ or safety of other nearby trees or are very low quality trees suppressing adjacent trees of better quality.
- Certain category U trees can have existing or potential conservation value which may make it desirable to preserve.

3.8 **Category (A) – (Green):** Trees that are considered for retention and are of high quality with an estimated remaining life expectancy of at least 40 years with potential to make a lasting contribution. Such trees may comprise:

- Subcategory (i) trees that are particularly good examples of their species, especially if rare or unusual, or are essential components of groups such as formal or semi-formal arboricultural features for example the dominant and/or principal trees within an avenue.
- Subcategory (ii) trees, groups or woodlands of particular visual importance as arboricultural and / or landscape features.
- Subcategory (iii) trees, groups or woodlands of significant conservation, historical, commemorative or other value for example veteran or wood pasture.

3.9 **Category (B) – (Blue):** Trees that are considered for retention and are of moderate quality with an estimated remaining life expectancy of at least 20 years with potential to make a significant contribution. Such trees may comprise:

- Subcategory (i) trees that might be included in category A but are downgraded because of impaired condition for example the presence of significant though remediable defects, including unsympathetic past management and storm damage.
- Subcategory (ii) 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.
- Subcategory (iii) trees with material conservation or other cultural value.

3.10 **Category (C) – (Grey):** Trees that are considered for retention and are of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Such trees may comprise:

- Subcategory (i) unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
- Subcategory (ii) trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value or trees offering low or only temporary / transient screening benefits.
- Subcategory (iii) trees with no material conservation or other cultural value.

Ancient and Veteran Trees

3.11 Various published methodologies are currently available for the identification of Ancient and Veteran trees which, due to the complexity and subjectivity of the process of defining and assessing these trees, often have conflicting definitions.

3.12 This Arboricultural Assessment has used the criterion for defining a veteran tree based upon the definition within BS:5837.

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

NOTE These characteristics might typically include a large girth, signs of crown retrenchment / reorganisation and hollowing of the stem.

3.13 Stem girth is the most reliable guide when determining the age of trees and in normal growing conditions, ancient and veteran trees are those which have a large girth by comparison with other trees of the same species. To inform the assessment of chronological age reference has been made to the chart provided within Lonsdale (2013) (shown below in Figure 1).

3.14 BS:5837 does not provide a definition for ancient trees and therefore the assessment and the criterion being used for identifying ancient trees is based upon government guidance on, Ancient woodland, ancient trees and veteran trees: advice for making planning decisions[3] which states.

"All ancient trees are veteran trees, but not all veteran trees are ancient. The age at which a tree becomes ancient, or veteran will vary by species because each species ages at a different rate."

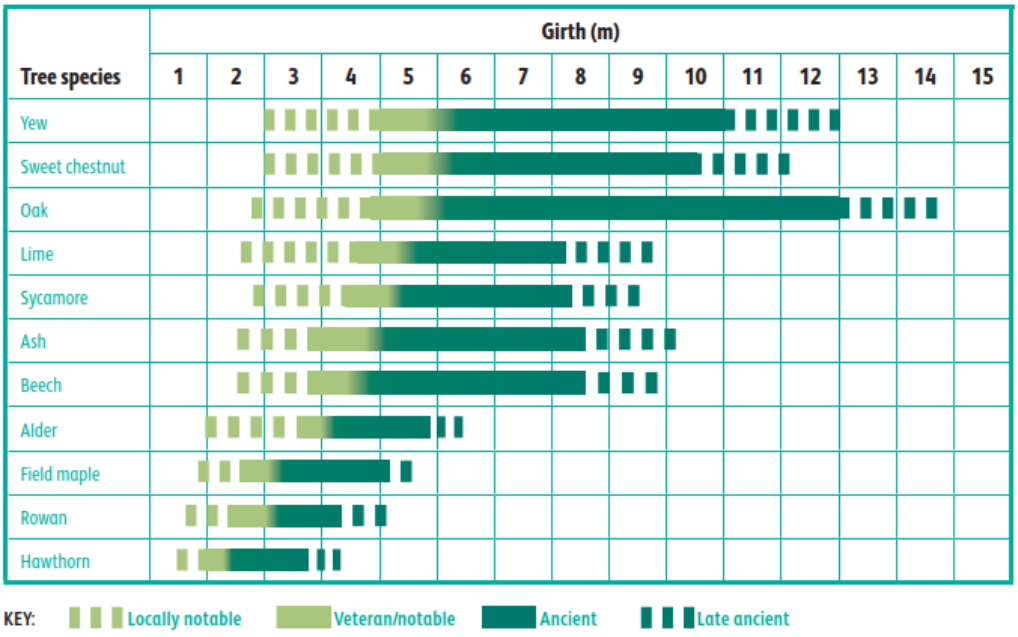

Figure 1: The chart of girth in relation to age and development classification of trees, as shown in Lonsdale (2013)4.

3 Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

[4] Lonsdale, D. (Ed.). 2013). Ancient and other veteran trees: further guidance on management. London: The Tree Council.

3.15 Ancient and veteran trees are also material considerations within the planning process and their importance is specifically recognised within the National Planning Policy Framework (NPPF) 2024, which includes its own definition of ancient and veteran trees. This Arboricultural Assessment has also considered any potential candidates against the below definition:

'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.'[5]

3.16 RAVEN 2 (Recognition of Ancient, Veteran & Notable trees) Julian Forbes-Laird (2023)[6] has been adopted for gathering survey information as this provides a standardised framework for recording characteristic ancient/veteran features and this Arboricultural Assessment has also considered any potential candidates against this framework.

Considerations and Limitations of the Tree Survey

3.17 The survey was completed from ground level only and from within the boundary of the site. Aerial tree inspections or an assessment of the internal condition of the stem/s or branches were not undertaken at this stage as this level of survey is beyond the scope of the initial assessment.

3.18 The statements made in this report regarding the assessed applies to the date of survey and cannot be assumed to remain unchanged. It will be necessary to review all comments and observations made within this report, in accordance with sound arboricultural practice, within two years of the date of survey (unless explicitly stated elsewhere within this report). Further review may also be necessary where site conditions change or works to trees are carried out which have not been specified in detail within this report.

3.19 Hedgerows are identified as a Habitat of Principal Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. The tree survey conducted, in accordance with BS5837, does not assess hedgerows against the Hedgerow Regulations 1997 or specifically from an ecological perspective, and is outside the scope of this assessment.

3.20 It may be necessary during detailed design to undertake further assessment and accurate positioning of woody species within tree groups and hedgerows to assist structural calculations for foundation design of structures in accordance with NHBC Chapter 4.2 Building near Trees.

5 Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

[6] Recognition of Ancient, Veteran & Notable Trees – RAVEN 2 (2023) – Julian Forbes-Laird Consultancy.

4.0 RESULTS

4.1 A total of 75 individual trees, eight groups of trees, one woodland and four hedgerows were surveyed as part of the Arboricultural Assessment. Trees were surveyed as individual trees, groups, hedgerows and woodland as per the survey methodology.

4.2 Appendix A presents details of all individual trees, groups, hedgerows and woodlands recorded during the assessment including heights, diameters at 1.5m from ground level, crown spread (given as a radial measurement from the stem), age class, comments as to the overall condition at the time of inspection, BS5837 category of quality and suitability for retention and the root protection area (RPA), calculated in accordance with Annex C, D and Section 4.6 of BS5837:2012.

4.3 General observations particularly of structural and physiological condition for example the presence of any decay and physical defect and preliminary management recommendations have also been recorded where appropriate.

4.4 The individual positions of trees, groups, hedgerows and woodlands have been shown on the Tree Survey Plan. The positions of trees are based on a topographical / land survey, as far as possible, supplied by the client. Where topographical information has not identified the position of trees these have been plotted using a global positioning system and aerial photography to provide approximate locations. The crown spread, root protection area and shade pattern (where appropriate) are also indicated on this plan.

Results Summary

4.5 Tree cover across the site is primarily mature in age and dominated by free standing English oak *Quercus robur*. Trees are sporadically positioned across the site giving a Parkland feel with a higher concentration of trees along the central watercourse. Other species present include ash *Fraxinus excelsior*, alder *Alnus glutinosa*, hawthorn *Crataegus monogyna*, holly *Ilex aquifolium* and sycamore *Acer pseudoplatanus*.

4.6 Table 1 below summarises the trees assessed and several of the trees have been discussed in more detail following the table, owing to their physical condition or arboricultural significance.

Table 1: Summary of Trees by Retention Category

	Individual Trees	Total	Groups of Trees	Total
Category U - Unsuitable	T31, T39, T69	3		0
Category A (High Quality / Value)	T2, T3, T4, T5, T6, T8, T9, T12, T13, T17, T18, T23, T24, T25, T28, T33, T34, T35, T38, T49, T52, T54, T56, T58, T67, T74, T75	27	W1	1
Category B (Moderate Quality / Value	T11, T14, T19, T20, T26, T27, T32, T36, T37, T42, T43, T44, T45, T51, T53, T55, T57, T59, T60, T62, T64, T65, T66, T70, T72, T73	26	G4, G5, G6, G7, G8	5

	Individual Trees	Total	Groups of Trees	Total
Category C (Low Quality / Value)	T1, T7, T10, T15, T16, T21, T22, T29, T30, T40, T41, T46, T47, T48, T50, T61, T63, T68, T71	19	G1, G2, G3, H1, H2, H3, H4	7

4.7 In total twenty-seven individual trees and a single woodland were recorded as high quality and retention Category A. All but one of these twenty-seven Category A trees were mature English oak which were considered particularly good examples of the species with a remaining life expectancy of more than 40 years. T75, a veteran beech *Fagus sylvatica* was the other individual tree recorded as Category A, situated within the block of woodland (W1), T75 had a large stem for the species and sufficient veteran features to be considered a veteran tree.

4.8 To afford T75 greater protection a buffer zone calculated in accordance with the guidelines detailed within Ancient and other Veteran Trees: Further Guidance on Management (Lonsdale, D (ed.) (2013). The Tree Council & Ancient Tree Forum has been provided. This buffer zone is defined as a distance equal to 15 times the trees stem diameter, or five metres beyond the canopy, whichever is the greater (Read, 2000).

4.9 Woodland W1 situated in the northeast of the site was made up of a mixture of broadleaf species. The woodland had an open structure with limited understorey. Trees displayed features characteristic of woodland trees with upright forms and had been subject to little past management, although a small number of trees adjacent to Longsight Road had been felled likely due to safety concerns. Storm damage was evident as would be expected, along with some damage from horses kept on site. Collectively the woodland was of high value and is afforded protection by a Tree Preservation Order, namely TPO 3/19/3/238 Green Nook Wood 2024.

4.10 Local authorities have a Duty under the Town and Country Planning Act to create Tree Preservation Orders (TPO) to protect and preserve specific trees and woodlands that bring significant amenity benefit to a particular site or location. Under a TPO it is a criminal offence to cut down, top, lop, uproot or wilfully destroy a tree protected by that Order, or to cause or permit such actions, if carried out without the prior written consent of the acting LPA, Ribble Valley Borough Council.

4.11 Twenty-six individual trees, and five groups of trees were of moderate quality and retention Category B. Most of these Category B trees were mature alder which by virtue of their age and condition had a life expectancy of less than 40 years. Along with mature English oak which were downgraded to Category B because of impaired condition, which included unsympathetic past management, livestock damage and storm damage.

4.12 T44, a mature alder situated along the central watercourse displayed featured associated with veteran trees which included a hollow stem, however, the tree did not poses a stem diameter within the veteran range for the species as set out in Figure 1 (The chart of girth in relation to age and development classification of trees, as shown in Lonsdale (2013)), so was not considered a veteran tree. T44 did hold some material conservation value and potential ecological value so was recorded as Category B(iii).

4.13 The five Category B tree groups were situated either along the site boundary with Whitehalgh Lane or along the central watercourse and provided value as an arboricultural screen or as a collective arboricultural feature.

4.14 Three groups, four hedgerows and nineteen individual trees, were recorded as low quality and retention Category C. These trees, groups and hedgerows were unremarkable and considered of limited merit, comprising of young trees or trees with impaired condition so that they do not qualify in higher categories. A survey conducted, in accordance with BS5837, does not however assess hedgerows against the Hedgerow Regulations 1997 or specifically from an ecological perspective, so reference should be made to the Ecological Assessment.

4.15 Three individual trees were recorded as unsuitable for retention and Category U. These included T31, a mature alder which had failed at 4m, T39, a dead holly and T69 a mature ash tree in such a poor condition that it cannot realistically be retained as a living tree in the context of the current land use for longer than 10 years. Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition and should not be considered in the planning process on arboricultural grounds.

Statutory Considerations

4.16 Table 2 below details which trees are included in the Ribble Valley Borough Council Tree Preservation Order designation, TPO 3/19/3/238 Green Nook Wood 2024.

Table 2: Tree Preservation Order Details

Tree No. taken from FPCR	TPO reference no.
W1	W1
T75	W1

5.0 ARBORICULTURAL IMPACT ASSESSMENT

5.1 The following paragraphs present a summary of the tree survey and discussion of trees and groups recorded in the context of any proposed development in the form of an Arboricultural Impact Assessment in accordance with section 5.4 of BS5837. Any final tree retentions will need to be reconciled with the advice contained within this report.

5.2 The AIA has been based upon the Illustrative Masterplan and seeks to outline the relationship between the proposals and the existing trees and hedgerows. The drawing shows the proposals for 300 dwellings with accessed provided through a new junction on Longsight Road with a righthand turn lane and new footway.

5.3 An overlay of the layout has been incorporated in the Tree Retention Plan to assist in identifying the relationship and any potential conflicts between the proposals and the existing trees and hedgerows. The plan also identifies which trees would be required to be removed or retained as part of the proposed development.

5.4 Table 3 below summarises the impact on tree stock and these impacts have been discussed in more detail following the table.

Table 3: Summary of Impact on Tree Stock

	Trees to be Retained	Total	Trees to be Removed in full or part	Total
Category U - Unsuitable	T31, T39, T69	3		0
Category A (High Quality / Value)	T2, T3, T4, T5, T6, T8, T9, T12, T13, T17, T18, T23, T24, T25, T28, T33, T34, T35, T38, T49, T52, T54, T56, T58, T67, T74, T75 W1	27 1		0 0
Category B (Moderate Quality / Value	T11, T14, T19, T20, T26, T27, T32, T36, T42, T44, T45, T51, T53, T55, T57, T59, T60, T66, T70, T72, T73 G4, G5, G6, G7, G8	21 5	T37, T43, T62, T64, T65	5 0
Category C (Low Quality / Value)	T1, T15, T16, T21, T22, T29, T30, T40, T41, T46, T47, T48, T68, T71 G1, G2, G3, H2, H3, H4	14 6	T7, T10, T50, T61, T63 H1 (Part Removal)	5 1

5.5 Access to the site would be provided through a new junction on Longsight Road with a righthand turn lane and new footway. This is only feasible position where a vehicular access can be provided and would require the removal of a section of hedgerow H1, which runs along the length of the boundary with Longsight Road. The removal of an approximately 270m section of hedgerow which includes individual tree T10, an immature ash tree which has outgrown from the hedgerow, would result in an arboricultural impact but this impact could be mitigated through new hedgerow planting.

5.6 This new hedgerow planting could be provided within the site behind the new footway and as hedgerows are identified as a Habitat of Principal Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, it is important that the proposed scheme delivers a net gain in terms of linear hedgerows through new planting to compensate for any losses. Species should be native, and characteristic of the locality.

5.7 All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the bird-breeding season (March - September inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds prior to removal by an experienced ecologist.

5.8 The new footway along the southern side of Longsight Road is shown to affect the RPA of T9, a mature Category A, English oak. The footway will however be provided within the existing grass verge which likely contains underground services to power street lighting along this side of Longsight Road. T9 is also situated at a lower level then the existing verge and while this will not have restricted root development into the verge, the unfavourable growing conditions due to the underground services and road salt are likely to have limited root development within the verge. It is considered that this new footway could be installed using conventional construction methods, with minimal impact to T9 and this tree could be retained.

5.9 Although indicative at this stage the internal layout as shown has demonstrated that development on the site could be provided with minimal arboricultural impacts. The indicative drainage strategy has shown two attenuation basins within the north of the site, the excavation of which could require the removal of up to six individual trees (T61 - T66). At the detailed design stage, it may however be possible for this basin to be designed around the retention of T66, avoiding any changes in ground level within its RPA.

5.10 The internal design of the layout has been designed to provide two crossing points over the central watercourse. The northern crossing point will utalise an existing crossing which will be upgraded but would not require the removal of any tree cover. The southern crossing point has been positioned to avoid any significant tree removal but would require the removal of a single individual tree T43, a mature Category B alder and is shown to affect the RPA of T44.

5.11 The RPA of T44 is based upon its stem diameter, which was large, however the tree was in a state of decline with a hollowing stem and greatly reduced crown area. The functional rooting area of T44 is likely to be smaller than the calculated RPA based on its crown spread, with root area and crown area being linked. It is considered that this new crossing point could be installed in the position as shown, with minimal impact to T44 and this tree could be retained.

5.12 The internal layout has been designed around the retention of nearly all the individual trees which give the site its Parkland appearance. Proposals would see these trees retained within areas of green space distributed across the development creating a natural green and leafy urban environment in which people would want to reside whilst also benefiting local wildlife. However, to achieve a feasible internal layout would likely require the removal of a small number of individual trees (T7, T37 & T50).

5.13 Both T7 and T50, two mature English oak were in poor condition and recorded as Category C, so should not be considered significant arboricultural constraints as their removal could easily be mitigated for through new tree planting. T37 a mature English oak was recorded as moderate quality (Category B) being downgraded due to more significant storm damage and a larger proportion of deadwood within its crown. The loss of T37 will result in an arboricultural impact however through new tree planting which would be provide across the site and could include large specimen trees within the proposed areas of green space, this loss could be mitigated for.

5.14 The granting of outline planning approval would not allow for the removal of T37, but should the removal of this tree be approved as part of a subsequent application the tree surgery contractor must ensure that no protected species which includes nesting birds and all bat species, are harmed whilst carrying out this work. Reference should be made to the Ecological Assessment prior to any tree works being undertaken.

5.15 The woodland afforded protection by Ribble Valley Borough Council Tree Preservation Order designation, TPO 3/19/3/238 Green Nook Wood 2024 and the single veteran tree (T75) recorded within this woodland, are both shown to be retained. The Illustrative layout has provided this woodland and veteran tree with sufficient stand off so that there should be minimal negative interactions between future residents, and this retained tree cover. The woodland is situated to the northeast of proposed dwellings so shading should not be a significant factor and as the woodland is protected any future works would be at the discretion of Ribble Valley Borough Council, ensuring that no inappropriate work is carried out to these high-quality trees.

5.16 The illustrative layout has shown several informal footpaths winding through the proposed areas of open space and along the edge of the woodland. These footpaths pass within the RPA of several trees and while this should not be considered a negative, with promotion of public access to green space and trees being regarded as beneficial. Should the intention be to formalise these footpaths to allow wheelchair and buggy access, then it is advised that a no dig cellular confinement system be used for their construction. These systems allow for a formal surface to be laid within the RPA of retained trees without adversely affecting the tree or the ground condition. A porous surface such as bound gravel would be recommended to allow for water and gaseous exchange through the footpath to the roots below.

Discussion

5.17 In conclusion for arboriculture, the proposals are considered to meet the aims and objectives of local and national policy through careful consideration of the design and retention of a high proportion of the existing tree cover. The retention of this tree cover coupled with targeted future management and enhancement through new tree planting will meet many of the individual aspirations set out in the various policies.

5.18 In a subsequent Reserved Matters application, the final layout of the scheme should be informed by this assessment. Dwellings and hard surfacing should not be positioned within the RPA of retained trees and the routing of below ground services should also consider retained trees as recommended by the guidance given in section 7.7 of BS5837. A subsequent Reserved Matters application should also include an Arboricultural Method Statement and detailed Tree Protection Plan to ensure it is in accordance with local planning policy.

6.0 NEW TREE AND HEDGEROW PLANTING

6.1 As part of the subsequent reserved matters application, should the application be approved, an adequate quantity of structured tree planting should be provided to mitigate for any tree and hedgerow removal necessary to implement the development. The purpose and function of this new tree planting should be understood from the start of any design stages so that key objectives from a landscape perspective can also be achieved.

6.2 The landscaping scheme should consider the use of both native tree species (for their low maintenance requirements and nature conservation value) and ornamental species (for their contribution to urban design and amenity value). Species choices should be selected based on their suitability for the final site use. Furthermore, during the design process consultation should be made with the Local Planning Authority to obtain information on their tree strategy and incorporate the planting proposals with any local policies and initiatives and/or Biodiversity Action Plans (BAP).

6.3 When deciding upon suitable tree species, careful consideration would need to be given to the following: ultimate height and canopy spread, form, habit, density of crown, potential shading effect, colour, water demand, soil type and maintenance requirements in relation to both the built form of the new development and existing properties.

Rooting Environment and Soil Volumes

6.4 The success of any landscaping scheme relies on an adequate provision of a high-quality rooting environment within which trees can thrive and reach their full potential. Planting trees with due care and consideration can, in the long term, provide a greater return on a schemes green investment and ensure trees remain healthy and grow to mature proportions.

6.5 The planting of trees within confined urban environments should consider the use of appropriately designed planting pits specifically engineered to promote tree health and longevity. Crucially the aim will be to provide an adequate volume of quality soil for roots to suitably develop by calculating the amount of available soil volumes needed and selecting species whose mature size is compatible with the site. This is an integral component of the planning stage (Lindsey & Bassuk, 1991).

General Planting Recommendations

6.6 Wherever possible, following discussions with the developer and utility companies, common service trenches should be specified to minimise land take associated with underground service provision and facilitation access for future maintenance.

6.7 Tree planting should be avoided where they may obstruct overhead power lines or cables. Any underground apparatus should be ducted or otherwise protected at the time of construction to enable trees to be planted without resulting in future conflicts.

7.0 TREE PROTECTION MEASURES

7.1 Retained trees should be adequately protected during works through the erection of the requisite tree protection measures. These protection measures should be detailed as part of a site-specific Arboricultural Method Statement, which could be imposed as a condition of planning approval.

7.2 Measures to protect trees should follow the guidance in BS5837 and be applied where necessary for the purpose of protecting trees within the site whilst allowing sufficient access for the implementation of the proposed layout. These have been broadly summarised below.

General Information and Recommendations

7.3 All trees retained on site should be protected by suitable barriers or ground protection measures around the calculated RPA, crown spread of the tree or other defined constraints of this assessment as detailed by section 6 and 7 of BS5837.

7.4 Barriers should be erected prior to commencement of any construction work and once installed, the area protected by fencing or other barriers will be regarded as a construction exclusion zone.

7.5 Any trees that are not to be retained as part of the proposals should be felled prior to the erection of protective barriers. Particular attention needs to be given by site contractors to minimise damage or disturbance to retained specimens.

Tree Protection Barriers

7.6 Tree protection fencing should be fit for the purpose of excluding any type of construction activity and suitable for the degree and proximity of works to retained trees. Barriers must be maintained to ensure that they remain rigid and complete for the duration of construction activities on site.

7.7 In most situations, fencing should comprise typical construction fencing panels attached to scaffold poles driven vertically into the ground, as illustrated in Appendix B.

7.8 Where site circumstances and the risk to retained trees do not necessitate the default level of protection an alternative will be specified appropriate to the level / nature of anticipated construction activity.

Protection outside the exclusion zone

7.9 Once the areas around trees have been protected by the barriers, any works on the remaining site area may be commenced providing activities do not impinge on protected areas.

7.10 All weather notices should be attached to the protective fencing to indicate that construction activities are not permitted within the fenced area. The area within the protective barriers will then remain a construction exclusion zone throughout the duration of the construction phase of the proposed development.

7.11 Wide or tall loads etc should not come into contact with retained trees. Banksman should supervise transit of vehicles where they are near retained trees.

7.12 Oil, bitumen, cement or other material that is potentially injurious to trees should not be stacked or discharged within 10m of a tree stem. No concrete should be mixed within 10m of a tree. Allowance should be made for the slope of ground to prevent materials running towards the tree.

7.13 Notice boards, telephone cables or other services should not be attached to any part of a retained tree.

7.14 Any trees which need to be felled adjacent to or are present within a continuous canopy of retained trees, must be removed with due care (it may be necessary to remove such trees in sections).

8.0 TREE MANAGEMENT

8.1 The layout of the development is currently reserved for subsequent approval except for means to access to, but not within, the site. During a reserved matters application pursuant to layout, a review of the relationship between the layout and the retained trees should be undertaken by a qualified arboriculturist to assess the existing tree cover and prepare a schedule of tree works.

8.2 All retained trees should be subjected to sound arboricultural management as recommended within section 8.8.3 of BS5837 Post Development Management of Existing Trees, where there is a potential for public access to satisfy the landowner's duty of care.

8.3 Landowners responsible for trees, especially those within the public domain, have a legal 'duty of care' to ensure that visitors and neighbours of their land are reasonably safe and that nobody comes to harm or injury, by his or her negligence, through taking measures to reduce risks as far as is 'reasonably practical' (The Health and Safety at Work Act 1974).

8.4 The Occupiers Liability Act (1957 and 1984) also places a 'duty of care' to ensure that no reasonably foreseeable harm takes place due to tree defects. That duty of care should be reasonable, proportionate, and reasonably practicable when managing the risk[7].

8.5 It is currently expected that a suitably qualified Arboriculturist or tree surveyor should inspect trees with an appropriate level of regularity. The purpose of the inspections is to determine whether a tree could foreseeably cause harm by virtue of its size and physical condition.

7 The Health and Safety at Work Act 1974

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Notes:

All dimensions to be verified on site. Do not scale this drawing, use figure dimensions only. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.
The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified site prior to and decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculation foundation depths.

- Category U - Trees / Groups Unsuitable for Retention (BS5837:2012)
- Category A - Trees / Groups of High Quality (BS5837:2012)
- Category B - Trees / Groups of Moderate Quality (BS5837:2012)
- Category C - Trees / Groups of Low Quality (BS5837:2012)
- Woodland (Colour Indicates BS5837:2012 Category)
- Hedgerow Colour Indicates BS5837:2012 Category
- Root Protection Area
- Veteran Tree Buffer Zone (in accordance with Ancient and Other Veteran Trees: Further Guidance on Management)
- T1(A) G1(A) Individual/Group number and BS5837:2012 Category
- T75(A) W1(A) Individual/Group Afforded protection by TPO 3/19/3/238 Green Nook Wood 2024
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

rev	date	description	drwn/chkd
-	20.01.20	First Issue	AZS
A	04.11.24	Update	EC
B	25.02.25	Revision	EC

client

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project

Longsight Road, Langho

title

TREE SURVEY PLAN

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- Category U - Trees / Groups Unsuitable for Retention (BS5837:2012)
- Category A - Trees / Groups of High Quality (BS5837:2012)
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- Category C - Trees / Groups of Low Quality (BS5837:2012)
- Woodland (Colour Indicates BS5837:2012 Category)
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- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

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-	20.01.20	First Issue	AZS
A	04.11.24	Update	EC
B	25.02.25	Revision	EC

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All dimensions to be verified on site. Do not scale this drawing, use figure dimensions only. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.
The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified site prior to and decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculation foundation depths.

- Tree/Group to be Retained
- Tree/Group proposed to be removed subject to relevant permissions
- Category U - Unsuitable for retention on arboricultural grounds
- Hedgerow Proposed to be Retained
- Hedgerow proposed to be removed subject to relevant permissions
- Woodland Proposed to be Retained
- Root Protection Area (Shown for retained trees only)
- Veteran Tree Buffer Zone (in accordance with Ancient and Other Veteran Trees: Further Guidance on Management)
- T1(A) G1(A) Individual/Group number and BS5837:2012 Category
- T75(A) W1(A) Individual/Group Afforded protection by TPO 3/19/3/238 Green Nook Wood 2024
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

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A	25.02.25	Revision	EC

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TREE RETENTION PLAN

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Notes:

All dimensions to be verified on site. Do not scale this drawing, use figure dimensions only. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.
The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified site prior to and decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculation foundation depths.

- Tree/Group to be Retained
- Tree/Group proposed to be removed subject to relevant permissions
- Category U - Unsuitable for retention on arboricultural grounds
- Hedgerow Proposed to be Retained
- Hedgerow proposed to be removed subject to relevant permissions
- Woodland Proposed to be Retained
- Root Protection Area (Shown for retained trees only)
- Veteran Tree Buffer Zone (in accordance with Ancient and Other Veteran Trees: Further Guidance on Management)
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- T75(A) W1(A) Individual/Group Afforded protection by TPO 3/19/3/238 Green Nook Wood 2024
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

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-	06.01.25	First Issue	EC
A	25.02.25	Revision	EC

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TREE RETENTION PLAN

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Appendix A - Tree Schedule

Measurements	Age Classes	Quality Assessment of BS Category	ULE (relates to BS Category)
Height - Measured using a digital laser clinometer (m)	**YNG**: Establishing, typically with good vigour and fast growth rates and strong apical dominance; c. less than 1/3 life expectancy	**Category U -** Trees 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.	<10 years
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837	**SM:** Semi-mature trees less than 1/3 life expectancy	**Category A -** Trees of high quality with an estimated remaining life expectancy of at least 40 years.	40+ years
Crown Radius - Measured using a digital laser clinometer radially from the main stem (m)	**EM:** Established, typically vigorous and increasing in apical height and lateral spread; 1/3 - 2/3 life expectancy. Offers landscape significance	**Category B -** Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	20-40 years
Abbreviations est - Estimated stem diameter avg - Average stem diameter for multiple stems upto - Maximum stem diameter of a group	**M:** Fully established over 2/3 life expectancy, generally good vigour and achieving full height potential with crown still spreading	**Category C -** Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	10-20 years
	OM: Fully mature, at the extremes of expected life expectancy, vigour decreasing, declining or moribund	Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value	
	V: biological, cultural or aesthetic value comprising niche saproxylic habitat. Individuals of large proportions (stem girth) in comparison to trees of the same species/surviving beyond the typical age range for their species.	**The BS category particular consideration has been given to the following:** • The presence of any structural defects in each tree/group and its future life expectancy • The size and form of each tree/group and its suitability within the context of a proposed development • The location of each tree relative to existing site features e.g. its screening value or landscape features • Age class and life expectancy	

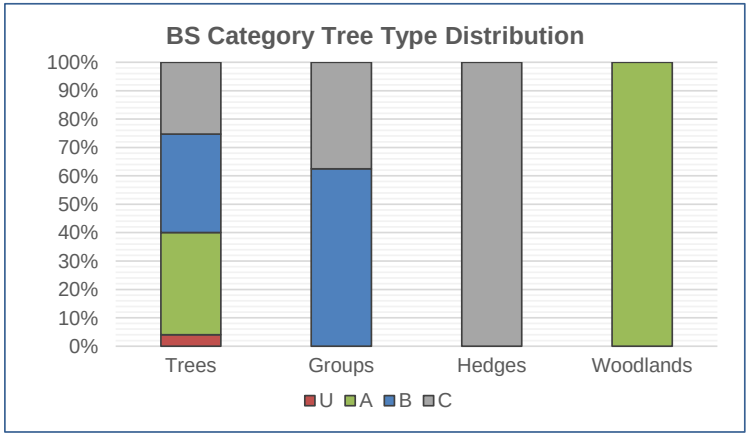
Structural Condition	Physiological Condition	Root Protection Area (RPA)
Good - No significant structural defects	**Good -** No significant health problems	• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the rooting area required for a tree to be successfully retained. Tree roots extend beyond the calculated RPA in many cases and where possible a greater distance should be protected. • Where veteran trees have been identified the RPA has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter, uncapped.
Fair - Structural defects that can be remediated	**Fair -** Symptoms of ill-health that can be remediated	
Poor - Significant defects beyond remediation, present a risk of failure in the foreseeable future	**Poor -** Significant ill-health. Unlikely the tree will recover in the long term	
Dead - Dead tree with structural integrity of tree severely compromised	**Advanced Decline / Dead -** Advanced state of decline and unlikely to recover or Dead	

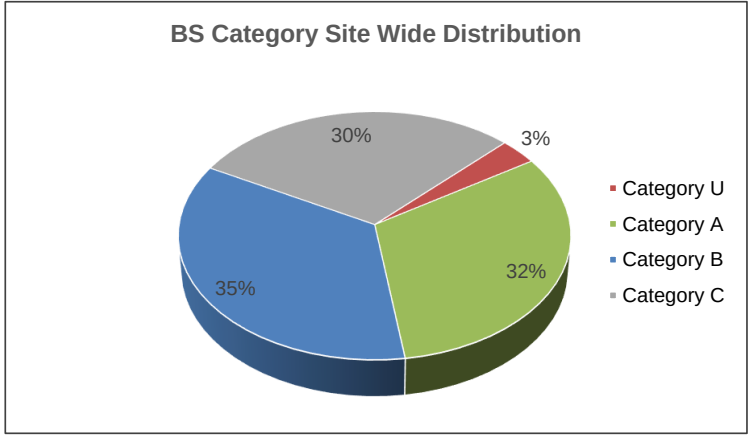
Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U	T31, T39, T69	3		0
Category A	T2, T3, T4, T5, T6, T8, T9, T12, T13, T17, T18, T23, T24, T25, T28, T33, T34, T35, T38, T49, T52, T54, T56, T58, T67, T74, T75	27	W1	1
Category B	T11, T14, T19, T20, T26, T27, T32, T36, T37, T42, T43, T44, T45, T51, T53, T55, T57, T59, T60, T62, T64, T65, T66, T70, T72, T73	26	G4, G5, G6, G7, G8	5
Category C	T1, T7, T10, T15, T16, T21, T22, T29, T30, T40, T41, T46, T47, T48, T50, T61, T63, T68, T71	19	G1, G2, G3, H1, H2, H3, H4	7
	Total	75	**Total**	13

BS Category Tree Type Distribution displays the proportion of trees assessed in each type to enable a better understanding of the category distribution.

BS Category Site Wide Distribution shows the proportion of trees assessed in each category across the whole site which allows an interpretation of the site's overall quality.





Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
INDIVIDUAL TREES										
T1	Alder Alnus glutinosa	10	670	4	M	F	Basal cavity observed Basal suckers present Branch stubs evident Broken branches evident Dieback of the crown observed Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Open cavity 170x60cm on main stem Possible hollow main stem	203	8.0	C (i)
T2	English Oak Quercus robur	15	740	7	M	F	Branch stubs evident Broken branches evident Characteristic for species Minor dead wood evident in the crown (<75mm) No major defects were noted	248	8.9	A (i)
T3	English Oak Quercus robur	13	885	9	M	F	Branch stubs evident Broken branches evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) No major defects were noted Prominent buttress roots Lateral lever to south 2m	354	10.6	A (i)
T4	English Oak Quercus robur	10	670	5	EM	F	Characteristic for species Minor dead wood evident in the crown (<75mm) No major defects were noted	203	8.0	A (i)
T5	English Oak Quercus robur	15	790	7	M	F	Branch stubs evident Broken branches evident Characteristic for species Minor dead wood evident in the crown (<75mm) No major defects were noted	282	9.5	A (i)
T6	English Oak Quercus robur	11	660	8	M	F	Branch stubs evident Broken branches evident Characteristic for species Minor dead wood evident in the crown (<75mm) No major defects were noted Broken branch within crown to SE	197	7.9	A (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T7	English Oak Quercus robur	7	440	5	EM	P	Branch stubs evident Broken branches evident Browsing damage noted on main stem Dieback of the crown observed Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	88	5.3	C (i)
T8	English Oak Quercus robur	14	700	8	M	G	Branch stubs evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) No major defects were noted	222	8.4	A (i)
T9	English Oak Quercus robur	15	690	6	M	G	Branch stubs evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) No major defects were noted	215	8.3	A (i)
T10	Ash Fraxinus excelsior	7	est 250 200	4	EM	P	Tree growing out of hedgerow under street light Crossing and rubbing branches Light ivy cover Stem removed at base	46	3.8	C (i)
T11	English Oak Quercus robur	13	540	6	M	F	Branch stubs evident Epicormic growth evident within the crown Heartwood exposed Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Pruning wounds noted	132	6.5	B (i)
T12	English Oak Quercus robur	12	610	7	EM	F	Characteristic for species Epicormic growth evident within the crown Established ivy cover Minor dead wood evident in the crown (<75mm) No major defects were noted	168	7.3	A (i)
T13	English Oak Quercus robur	10	580	6	EM	F	Characteristic for species Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) No major defects were noted	152	7.0	A (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T14	Alder Alnus glutinosa	11	490 390	6	M	F	Twin stemmed from 0.5m Basal suckers present Characteristic for species Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) No major defects were noted	177	7.5	B (i)
T15	English Oak Quercus robur	8	370	N - 5 S - 0 E - 5 W - 5	EM	F	Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Suppressed crown form Growing from base of ash tree	62	4.4	C (i)
T16	Ash Fraxinus excelsior	13	725	4	M	F	Die back of crown Branch stubs evident Broken branches evident Minor dead wood evident in the crown (<75mm)	238	8.7	C (i)
T17	English Oak Quercus robur	14	750	8	M	F	Barbed Wire attached to stem/s Branch stubs evident Broken branches evident Characteristic for species Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) No major defects were noted	254	9.0	A (i)
T18	English Oak Quercus robur	10	720	6	M	F	Branch stubs evident Broken branches evident Characteristic for species Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Cavities within main stem and lower crown Prominent buttress roots	235	8.6	A (i)
T19	Alder Alnus glutinosa	10	480 390	5	M	F	Basal suckers present Crossing and rubbing branches Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) Twin stemmed from base	173	7.4	B (i)
T20	English Oak Quercus robur	10	550	5	EM	F	Branch stubs evident Broken branches evident Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm)	137	6.6	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T21	English Oak Quercus robur	8	470	N - 5 S - 5 E - 1 W - 6	EM	F	Branch socket cavities observed Branch stubs evident Broken branches evident Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Suppressed crown form	100	5.6	C (i)
T22	Hawthorn Crataegus monogyna	4	130 170 80	2	M	F	Branch stubs evident Browsing damage noted on main stem Crossing and rubbing branches Minor dead wood evident in the crown (<75mm)	24	2.7	C (i)
T23	English Oak Quercus robur	15	830	7	M	F	Branch stubs evident Characteristic for species Crossing and rubbing branches Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm)	312	10.0	A (i)
T24	English Oak Quercus robur	14	720	8	M	F	Branch stubs evident Characteristic for species Crossing and rubbing branches Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm)	235	8.6	A (i)
T25	English Oak Quercus robur	11	560	7	M	F	Branch stubs evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) No major defects were noted Exposed buttress roots	142	6.7	A (i)
T26	Alder Alnus glutinosa	16	700	6	M	F	Basal suckers present Branch stubs evident Characteristic for species Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) No major defects were noted Exposed buttress roots	222	8.4	B (i)
T27	English Oak Quercus robur	10	620	6	M	F	Branch stubs evident Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm)	174	7.4	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T28	English Oak Quercus robur	13	885	8	M	F	Branch stubs evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	354	10.6	A (i)
T29	Ash Fraxinus excelsior	16	750	N - 5 S - 3 E - 8 W - 3	M	P	Die back of crown Basal suckers present Branch stubs evident Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm)	254	9.0	C (i)
T30	Ash Fraxinus excelsior	13	550	5	EM	P	Die back of crown Basal suckers present Branch stubs evident Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm)	137	6.6	C (i)
T31	Alder Alnus glutinosa	4	690	1	M	P	Failed at 4m Standing stem	N/A	N/A	U
T32	Holly Ilex aquifolium	8	350	4	M	F	Basal suckers present Browsing damage noted on main stem Crossing and rubbing branches Low crown form	55	4.2	B (i)
T33	English Oak Quercus robur	16	750	8	M	F	Branch stubs evident Broken branches evident Characteristic for species Heartwood exposed Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	254	9.0	A (i)
T34	English Oak Quercus robur	18	655	7	M	F	Branch stubs evident Broken branches evident Characteristic for species Heartwood exposed Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	194	7.9	A (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T35	English Oak Quercus robur	20	1050	11	M	F	Branch stubs evident Broken branches evident Characteristic for species Heartwood exposed Lateral lever arm observed Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	499	12.6	A (i)
T36	Alder Alnus glutinosa	13	550 430	6	M	F	Twin stemmed from 1m Basal suckers present Branch socket cavities observed Characteristic for species Minor dead wood evident in the crown (<75mm)	220	8.4	B (i)
T37	English Oak Quercus robur	14	810	9	M	F	Branch stubs evident Broken branches evident Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Potential Roost Features (PRF)	297	9.7	B (i)
T38	English Oak Quercus robur	17	950	11	M	F	Branch stubs evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) No major defects were noted	408	11.4	A (ii)
T39	Holly Ilex aquifolium	6	400	3	M	D	Standing dead tree	N/A	N/A	U
T40	Hawthorn Crataegus monogyna	4	10x 60	2	M	F	Characteristic for species Crossing and rubbing branches	16	2.3	C (i)
T41	Hawthorn Crataegus monogyna	4	80 80 80 80	2	M	P	Characteristic for species Crossing and rubbing branches Dieback of the crown observed	12	1.9	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T42	Alder Alnus glutinosa	11	740	6	M	F	Basal suckers present Characteristic for species Crossing and rubbing branches Minor dead wood evident in the crown (<75mm)	248	8.9	B (i)
T43	Alder Alnus glutinosa	10	460	5	M	F	Basal suckers present Characteristic for species Crossing and rubbing branches Dense undergrowth at the base Minor dead wood evident in the crown (<75mm)	96	5.5	B (i)
T44	Alder Alnus glutinosa	8	est 970	5	M	F	Basal cavity observed Basal suckers present Characteristic for species Crossing and rubbing branches Dense undergrowth at the base Dieback of the crown observed Epicormic growth evident within the crown Hollow stem with heartwood exposed Minor dead wood evident in the crown (<75mm)	426	11.6	B (iii)
T45	Alder Alnus glutinosa	9	600 550	6	M	F	Basal suckers present Minor dead wood evident in the crown (<75mm) Twin stemmed from base	300	9.8	B (i)
T46	Holly Ilex aquifolium	6	est 150 150 100 90	3	M	F	Basal suckers present Minor dead wood evident in the crown (<75mm) Multi stemmed from base	29	3.0	C (i)
T47	Holly Ilex aquifolium	3	est 200	2	M	P	Basal suckers present Minor dead wood evident in the crown (<75mm) Multi stemmed from base	18	2.4	C (i)
T48	English Oak Quercus robur	13	550	5	M	F	Water logged ground at base Branch stubs evident Crossing and rubbing branches Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) Pruning wounds noted	137	6.6	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T49	English Oak Quercus robur	16	745	8	M	F	Water logged ground at base Branch stubs evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) No major defects were noted	251	8.9	A (i)
T50	English Oak Quercus robur	11	605	5	EM	F	Branch stubs evident Characteristic for species Dieback of the crown observed Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	166	7.3	C (i)
T51	English Oak Quercus robur	8	680	6	EM	F	Burring on main stem Branch stubs evident Characteristic for species Crossing and rubbing branches Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	209	8.2	B (i)
T52	English Oak Quercus robur	15	955	9	M	F	Branch stubs evident Broken branches evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Laetiporus sulphureus barcket noted between butress at base	413	11.5	A (i)
T53	English Oak Quercus robur	13	700	7	M	F	Branch stubs evident Broken branches evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Broken branch to west	222	8.4	B (i)
T54	English Oak Quercus robur	15	690	8	M	F	Branch stubs evident Broken branches evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	215	8.3	A (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T55	English Oak Quercus robur	14	860	9	M	F	Branch stubs evident Broken branches evident Browsing damage Epicormic growth evident within the crown Low crown form Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Poached ground at the base Prominent buttress roots	335	10.3	B (i)
T56	English Oak Quercus robur	15	750	7	M	F	Branch stubs evident Broken branches evident Characteristic for species Epicormic growth evident within the crown Low crown form Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Poached ground at the base Prominent buttress roots	254	9.0	A (i)
T57	English Oak Quercus robur	15	900	11	M	F	Branch stubs evident Broken branches evident Characteristic for species Epicormic growth evident within the crown Low crown form Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Poached ground at the base Leaning stem to east	366	10.8	B (i)
T58	English Oak Quercus robur	14	720	7	M	F	Branch stubs evident Broken branches evident Characteristic for species Epicormic growth evident within the crown Low crown form Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Poached ground at the base	235	8.6	A (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T59	English Oak Quercus robur	14	790	7	M	F	Branch stubs evident Broken branches evident Characteristic for species Epicormic growth evident within the crown Low crown form Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Poached ground at the base	282	9.5	B (i)
T60	English Oak Quercus robur	15	990	9	M	F	Basal cavity with bottle butting Branch stubs evident Broken branches evident Characteristic for species Epicormic growth evident within the crown Low crown form Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Poached ground at the base	443	11.9	B (i)
T61	English Oak Quercus robur	11	620	5	M	P	Waterlogged ground at base Tree is in decline Large broken branch at 5m to south Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	174	7.4	C (i)
T62	English Oak Quercus robur	13	750	7	M	F	Branch stubs evident Broken branches evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Potential Roost Features (PRF) Grifola frondosa at base	254	9.0	B (i)
T63	Sycamore Acer pseudoplatanus	11	370	3	EM	F	Kink in stem Branch stubs evident Browsing damage noted on main stem Minor dead wood evident in the crown (<75mm) Suppressed crown form	62	4.4	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T64	English Oak Quercus robur	13	740	8	M	F	Branch stubs evident Characteristic for species Epicormic growth evident within the crown Lateral lever arm observed Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	248	8.9	B (i)
T65	English Oak Quercus robur	9	690	5	M	F	Branch stubs evident Characteristic for species Dieback of the crown observed Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Overhead cables Pruning wounds noted Prominent buttress roots	215	8.3	B (i)
T66	English Oak Quercus robur	12	690	6	M	F	Washed out ground under roots Branch stubs evident Characteristic for species Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Pruning wounds noted Prominent buttress roots	215	8.3	B (i)
T67	English Oak Quercus robur	15	820	8	M	F	Branch stubs evident Characteristic for species Epicormic growth evident within the crown Light ivy cover Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	304	9.8	A (i)
T68	Silver Birch Betula pendula	15	385	4	EM	F	Characteristic for species Crown had been heavily reduced Minor dead wood evident in the crown (<75mm)	67	4.6	C (i)
T69	Ash Fraxinus excelsior	20	1000	4	OM	P	Dieback of the crown observed Epicormic growth evident within the crown Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Possible decay to main stem Ash canker present Limited future potential	N/A	N/A	U

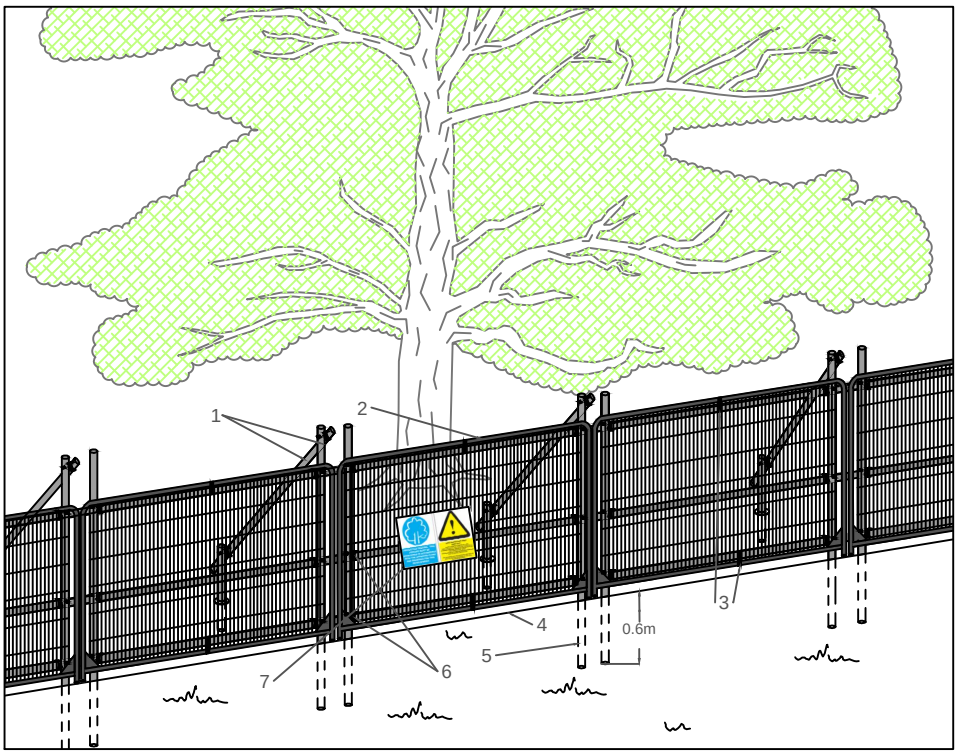
Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T70	Alder Alnus glutinosa	15	850	7	M	F	Basal suckers present Base obscured Epicormic growth evident within the crown Established ivy cover Minor dead wood evident in the crown (<75mm)	327	10.2	B (i)
T71	Alder Alnus glutinosa	9	360 260	3	EM	F	Basal suckers present Crossing and rubbing branches Minor dead wood evident in the crown (<75mm) Twin stemmed from 1m with included union between stems	89	5.3	C (i)
T72	English Oak Quercus robur	15	760	7	M	F	Base obscured Branch stubs evident Epicormic growth evident within the crown Established ivy cover Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	261	9.1	B (i)
T73	English Oak Quercus robur	15	700	7	M	F	Base obscured Branch stubs evident Epicormic growth evident within the crown Established ivy cover Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	222	8.4	B (i)
T74	English Oak Quercus robur	14	800	10	M	G	Characteristic for species Epicormic growth evident within the crown Low crown form Minor dead wood evident in the crown (<75mm) No major defects were noted	290	9.6	A (i)
T75	Beech Fagus sylvatica	20	1650	9	V	G	Situated within woodland Old pollard at 4m Burring on main stem with Ganoderma brackets noted Delamination of bark noted on single stem Exposed roots at base with browsing damage	1924	24.8	A (iii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Hawthorn Crataegus monogyna Horse Chestnut Aesculus hippocastanum Mountain Ash Sorbus aucuparia	7	avg 200 200 200	2	M	F	Crossing and rubbing branches Gaps present in hedgerow Low crown forms Minor dead wood evident in the crowns (<75mm) Old laid forms	54	4.2	C (ii)
G2	Hawthorn Crataegus monogyna	7	avg 200 200 200	2	M	F	Crossing and rubbing branches Gaps present in hedgerow Low crown forms Minor dead wood evident in the crowns (<75mm) Old laid forms 4 trees in group	54	4.2	C (ii)
G3	Hawthorn Crataegus monogyna	2	avg 8x 70	1	M	F	Crossing and rubbing branches Dieback of the crowns observed Gaps present Heartwood exposed Minor dead wood evident in the crowns (<75mm)	18	2.4	C (ii)
G4	Hawthorn Crataegus monogyna Holly Ilex aquifolium	4	est 200 200	2	M	F	Branch stubs evident Broken branches evident Crossing and rubbing branches Minor dead wood evident in the crowns (<75mm) Intermittent tree cover along watercourse	36	3.4	B (ii)
G5	Ash Fraxinus excelsior Hawthorn Crataegus monogyna Hazel Corylus avellana	8	est 10x 90	3	M	F	Crossing and rubbing branches Interlocking crowns Low crown forms Multi stemmed from base Trees growing on steep bank to watercourse	37	3.4	B (ii)
G6	Alder Alnus glutinosa	12	upto 450	6	EM	F	Branch stubs evident Crossing and rubbing branches Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) 3 trees in group	92	5.4	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G7	Ash Fraxinus excelsior English Oak Quercus robur Hawthorn Crataegus monogyna Sycamore Acer pseudoplatanus Hazel Corylus avellana Holly Ilex aquifolium	15	upto 550	7	EM / M	P / F	Basal suckers present Branch stubs evident Broken branches evident Dead trees noted Dense undergrowth at the base Dieback of the crowns observed Established ivy cover Failed trees Interlocking crowns Low crown forms Major dead wood evident in the crowns (>75mm) Minor dead wood evident in the crowns (<75mm) Some roadside trees need further inspection Ganoderma australe (adspersum) Southern bracket present	137	6.6	B (ii)
G8	English Oak Quercus robur Hawthorn Crataegus monogyna Hazel Corylus avellana Holly Ilex aquifolium	15	upto 550	7	EM / M	F	Branch stubs evident Crossing and rubbing branches Dense undergrowth at the base Epicormic growth evident within the crowns Established ivy cover Interlocking crowns Low crown forms Major dead wood evident in the crowns (>75mm) Minor dead wood evident in the crowns (<75mm)	137	6.6	B (ii)

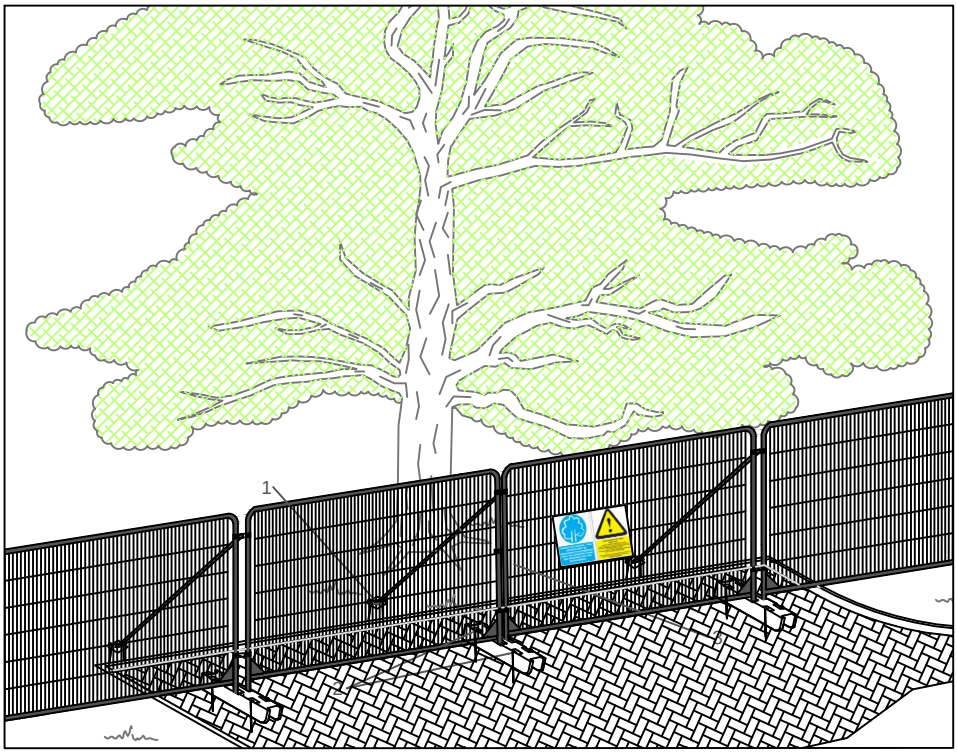
Hedge No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
HEDGEROWS										
H1	Hawthorn Crataegus monogyna	1.5	est 6x 60	1	EM	F	Crossing and rubbing branches Maintained hedgerow	10	1.8	C (ii)
H2	Hawthorn Crataegus monogyna	2	est 6x 60	1	M	F	Gaps present in hedgerow Old laid forms	10	1.8	C (ii)
H3	Hawthorn Crataegus monogyna Sycamore Acer pseudoplatanus Hazel Corylus avellana	2	est 8x 60	1	EM	F	Maintained hedgerow	13	2.0	C (ii)
H4	Hawthorn Crataegus monogyna Hazel Corylus avellana Holly Ilex aquifolium	1	est 6x 60	1	EM	F	Maintained hedgerow	10	1.8	C (ii)

Wood No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
WOODLANDS										
W1	Ash Fraxinus excelsior Beech Fagus sylvatica English Oak Quercus robur Hawthorn Crataegus monogyna Silver Birch Betula pendula Sycamore Acer pseudoplatanus Alder Alnus glutinosa Hazel Corylus avellana Holly Ilex aquifolium Whitebeam Sorbus aria Scots Pine Pinus sylvestris	16	upto 1000	8	EM / M	F	Basal cavity observed Branch stubs evident Broken branches evident Browsing damage noted on main stem Dieback of the crowns observed Epicormic growth evident within the crown Interlocking crowns Major dead wood evident in the crowns (>75mm) Minor dead wood evident in the crowns (<75mm) Woodpecker holes observed Woodland is open canopy with limited understorey Significant large beech within woodland centre recorded indivdually A number of roadside trees recently felled	452	12.0	A (ii)



Standard specification for protective barrier

1. Standard scaffold poles
2. Heavy gauge 2m tall galvanized tube and welded mesh infill panels
3. Panels secured to scaffold frame with wire ties
4. Ground level
5. Uprights driven into the ground until secure (min depth of 0.6m)
6. Standard scaffold clamps
7. Construction Exclusion Zone signs



Above ground stabilising systems

1. Stabiliser strut with base plate secured with ground pins
2. Feet blocks secured with ground pins
3. Construction Exclusion Zone signs

masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture

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NOTES

drawing title

APPENDIX B
PROTECTIVE FENCING SPECIFICATIONS

CAD file: S:\Arb resources\Basic Templates\Tree Protection\Appendix B - Protective Fencing A4.dwg