



PREPARED FOR
Mr David Houlby

SITE LOCATION
The Beeches, Halifax Road, Thurgoland,
Sheffield

ARBORICULTURAL IMPACT **ASSESSMENT**

September 2025

#WEARE**INNOVATORS**

Document Control

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Site Summary

Description	
Site Name/Address	The Beeches, Halifax Road, Thurgoland, Sheffield, S35 7AL
Site Ordnance Survey National Grid Reference	SE 28824 01114
Local Planning Authority	Barnsley Metropolitan Borough Council (BMBC)
Planning Application Reference Number	NA.
Statutory Constraints	Tree Preservation Order/s
	Conservation Area
	Yes
	No

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1. Introduction

1.1 Terms of instruction

1.1.1 Mr David Houlty (hereafter the 'Client') commissioned Arb Innovators Ltd ('Arb Innovators') to prepare an Arboricultural Impact Assessment (AIA) at The Beeches, Halifax Road, Thurgoland, Sheffield, S35 7AL (hereafter referred to as the 'Site') in accordance with *BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations* (The British Standards Institution, 2012), hereafter referred to as 'BS5837:2012'.

1.1.2 This assessment has been prepared by Callum Throw (*N. Dip Arb, MArborA, PTI*) Managing Director and Principal Arboricultural Consultant at Arb Innovators. Callum is an experienced Arboricultural Consultant possessing over 15 years' experience with specialism in Urban Forestry and trees in relation to development.

1.2 Purpose of this Arboricultural Assessment

1.2.1 The information provided is compliant with BS5837:2012 (Table B.1), national standard planning application validation requirements, and is prepared to accompany a Full planning application to Local Planning Authority (LPA), Barnsley Metropolitan Borough Council (BMBC)

1.2.2 This report describes the findings of a walkover survey, a desktop assessment of statutory constraints, the known and anticipated effects that granting planning permission would have on the existing trees, and subsequent recommendations and mitigation measures that should be incorporated in the Proposed Development.

1.3 Scope of this Arboricultural Assessment

1.3.1 Trees may form a constraint to the Proposed Development and therefore the methodology as set out in BS5837:2012 has been adhered to. This report broadly comprises four stages:

1. Undertake a survey of trees on the Site and those within the Study Area (a 15m buffer or "influencing distance" based on the surveyor's discretion) to fulfil the requirements of BS5837:2012.
2. Provide a Tree Constraints Plan (TCP) demonstrating the above and below-ground constraints; including canopy extents and Root Protection Areas (RPA), of those trees recorded.
3. Provide an AIA which includes a Tree Retention and Removals Plan (TRRP) to assess the impacts and effects which are likely to arise from the Proposed Development and identify mitigation for retained trees, where necessary.
4. Outline an Arboricultural Method Statement (AMS) 'Heads of Terms' providing a preliminary overview of how retained trees will be protected and managed during on-site demolition and construction activities.

1.3.2 The results and recommendations in this report are valid for a maximum of 12 months from the date of the survey.

2. The Site and Proposed Development Description

2.1 Site Overview and Description

2.1.1 Table 1 provides a description of the Site and arboricultural Study Area, which is denoted by a red and blue line presented on the TCP and TRRP provided at Appendix 3.

Table 1 Site Location, Description and General Overview

Description	
Site Description	The Beeches is a detached residential property positioned on Halifax Road in the village of Thurgoland, within the Metropolitan Borough of Barnsley, South Yorkshire. The Site is in a semi-rural setting, adjacent to other detached residential dwellings, open fields, farmland and patches of countryside.
Date of walkover Tree Survey	29 August 2025

2.2 Proposed Development Description

2.2.1 Table 2 provides a description of the Proposed Development which is shown on the TRRP at Appendix 3.

Table 2 Proposed Development Description and General Overview

Description	
Proposed Development Description	Erection of a two-storey rear extension to the existing structure.

3. Summary of Relevant Legislation and Planning Policy

3.1.1 This report has been compiled with reference to the following legislation and both national and local planning policy.

3.2 Legislation Relevant to Arboriculture

- The Town and Country Planning Act 1990.
- The Town and Country Planning (Tree Preservation) (England) Regulations 2012.
- The Forestry Act 1967
- The Occupiers Liability Act (1957 and 1984)

3.2.1 Other legislation that affords a lesser or indirect level of protection to trees includes the following:

- The Wildlife & Countryside Act 1981 (as amended).
- Conservation of Species and Habitat Regulations 2017 (as amended).
- Natural Environment and Rural Communities Act 2006 (Section 41 England and Section 42 Wales).
- Hedgerow Regulations (1997).

3.3 National Planning Policy

- National Planning Policy Framework (NPPF), 2023¹

3.4 Local Planning Policy Relevant to Arboriculture

Table 3 Relevant Planning Policy Documents

Description	Status/Coverage	Key Policies / Provisions	Implications for Arboriculture in New Development
Barnsley Local Plan 2019 (Adopted 3 January 2019)	Statutory development plan; covers land use / planning in Barnsley Metropolitan Borough until 2033.	Policy G11 – Green Infrastructure: Protect, maintain, enhance and create an integrated network of connected multi-functional green infrastructure. Tree cover, green corridors and landscape features form part of this. General Development Policies: GD1 (General Development) & D1 (High Quality Design & Place Making) require developments to respect and reinforce distinctive local character,	Any development must consider existing tree/woodland / hedgerows early in design; surveys and assessments needed. Loss of trees (especially ancient woodland or species of principal importance) must be avoided or mitigated; replacement planting likely required.

¹ National Planning Policy Framework (2023) [Online]. Available at < https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf > (Last Accessed January 2025).

Description	Status/Coverage	Key Policies / Provisions	Implications for Arboriculture in New Development
		<p>landscape features, etc. These policies have been interpreted to include tree / hedgerow retention and landscaping.</p> <p>Masterplan Frameworks for larger allocated sites include requirements for green space, wildlife corridors, retention of hedgerows / trees.</p>	<p>Layout and landscaping must respond to character, incorporating green infrastructure.</p>
<p>Supplementary Planning Document: Trees and Hedgerows</p>	<p>SPD adopted (2019) as part of Barnsley’s suite of SPDs; material consideration in planning applications.</p>	<p>Gives detailed guidance on dealing with existing trees and hedgerows on development sites: tree surveys (including BS5837), tree constraints plans, Root Protection Areas, crown spread, retention categories.</p> <p>Sets out expectations for protection during development: protective fences, prevention of root compaction, restrictions on works near retained trees.</p> <p>Requires that planning applications show clearly which trees / hedges are to be retained, which may be removed and what mitigation / replacement planting is proposed.</p>	<p>New development must demonstrate detailed tree/hedgerow survey information; use BS5837 standards; show Root Protection Areas; specify works needed for tree retention or removal.</p> <p>Layout must avoid placing structures over RPAs or too close to retained trees.</p> <p>Where removal is unavoidable, replacement planting / compensatory measures are required.</p>

3.5 Related Guidance

- British Standards Institution. (2010). British Standard 3998:2010, Tree Work - Recommendations. British Standards Institution, London.
- Natural England and Forestry Commission. (2022). Guidance – Ancient woodland, ancient trees and veteran trees: advice for making planning decisions.
- Tree Council & Ancient Tree Forum Ancient Tree Forum, Lonsdale, D (ed.) (2013) Ancient and other Veteran Trees: Further Guidance on Management.

- Woodland Trust (n.d.) (2024) Recognising and categorising ancient and other veteran trees.
- Royal Institute of British Architects, RIBA Plan of Work 2020 Overview, RIBA (2020).
- National Joint Utilities Group (2007) Volume 4, Issue 2: Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees.

4. Baseline Arboricultural Data

4.1 Arboricultural Desk Study

4.1.1 A Desk Study has been undertaken as a means of identifying if any statutory and non-statutory constraints or designations are present within the Site and Study Area. This Desk Study includes consideration of the following environmental constraints:

- Tree Preservation Orders (TPO).
- Conservation Areas.
- Ancient Woodland.
- Ancient, Veteran, or Notable trees.

4.1.2 An assessment of statutory and non-statutory constraints has been carried out using publicly accessible third-party information and aerial imagery. While this is deemed to be broadly accurate, in some instances no specific date is given for the information and images used and Arb Innovators cannot and will not accept liability for any deficiencies in third-party information.

Presence of Tree Preservation Orders and Conservation Areas

4.1.3 At the time of writing this assessment, it was confirmed using the BFC online, interactive mapping map² that there is a TPO present on Site, namely THE VICARAGE, SHEFFIELD ROAD.

4.1.4 The Site is not within a Conservation Area.

4.1.5 It should be noted that online interactive mapping is provided for reference only and is not intended to be definitive. Provisional Tree Preservation Orders (TPO) may be made whenever a local planning authority deems it appropriate and a TPO can be made at any time. The LPA should be contacted prior to commencement of any tree works or tree removals specified within this report.

Presence of Ancient Woodland

4.1.6 The presence of ancient woodland designation within or bordering the Site was checked using Natural England's Multi Agency Geographical Information for the Countryside (MAGIC) map³ on 12 September 2025. In accordance with NPPF, an ancient woodland is an area in England that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites.

4.1.7 The site does not contain Ancient and Semi-Natural Woodland (ANSW) nor Plantation on Ancient Woodland Site (PAWS). The Site was absent of these statutory designations and it therefore not necessary to consider the requirements of paragraph 186(c) of the NPPF.

² Barnsley Metropolitan Borough Council, Tree Preservation Orders [Online]. Available at: < <https://www.barnsley.gov.uk/services/parks-and-open-spaces/tree-preservation-orders/> > (Last Accessed 12 September 2025).

³ Magic (DEFRA), 2018. Multi Agency Geographic Information for the Countryside [Online]. Available at: < <https://magic.defra.gov.uk/MagicMap.aspx> > (Last Accessed 12 September 2025).

Presence of Ancient, Veteran and Notable trees

- 4.1.8 The presence of Ancient, Veteran, or Notable trees⁴ associated with the Site were checked using Woodland Trust’s Ancient Tree Inventory on 12 September 2025. It should be noted that this inventory is based on volunteer-submitted records, and its limitations should be acknowledged.
- 4.1.9 The Site was absent of this designation and it therefore not necessary to consider the requirements of paragraph 186(c)(d) of the NPPF.

⁴ Ancient Tree Inventory, 2018. Ancient Tree Inventory [Online]. Available at: < <https://ati.woodlandtrust.org.uk> > (Last Accessed 12 September 2025).

5. Arboricultural Walkover Survey

5.1 Brief BS5837:2012 Methodology

- 5.1.1 An arboricultural survey was undertaken on 29 August 2025 in accordance with BS5837:2012. The tree numbers associated with each recorded feature are cross-referenced within the BS5837:2012 Tree Survey Schedule and arboricultural plans at Appendix 2 and Appendix 3, respectively.
- 5.1.2 The BS5837:2012 Tree Survey Schedule provides specific details for each feature recorded, including height, stem diameter, crown spread, crown clearance, age class, physiological and structural conditions, and recommendations for preliminary management, where relevant. Trees located beyond the Site boundaries within up to 15m have also been included where they may influence development potential.
- 5.1.3 Full details of the walkover tree survey methodology used are provided in Appendix 1.

BS5837:2012 Quality Assessment

- 5.1.4 Trees were categorised by quality in accordance with BS5837:2012, section 4.5, using the quality categories A, B, C, and U. The objective of the tree categorisation method is to identify the quality and value (in a non-financial sense) of the arboricultural features recorded to make an informed decision about which features should be removed or retained if development occurs.
- Category A - Trees that are particularly good examples of their species, especially if rare or unusual. High quality trees with an estimated remaining life expectancy of at least 40 years.
 - Category B - Downgraded from category A because of impaired condition or lacking the quality necessary to merit category A. Moderate quality trees with an estimated remaining life expectancy of at least 20 years.
 - Category C - Unremarkable trees of limited merit which could be retained but are not a significant constraint. Low quality trees with an estimated remaining life expectancy of at least 10 years, or young trees with stem diameters below 150mm.
 - Category U - Trees in such an impaired condition that they should be removed and cannot realistically be retained as living trees for longer than 10 years.
- 5.1.5 The quality of each arboricultural feature is defined based on its sub-category. Sub-categories carry equal weight and should not be used to influence retention priority. Sub-categories 1, 2 and 3 are intended to reflect arboricultural, landscape and cultural values, respectively.
- 5.1.6 It should be noted that Table 1 of BS5837:2012 only includes suggestions for the remaining years. A tree may have a longer remaining life than stated, but it is nevertheless classified as a lower category due to its maturity, condition, or overall influence on the application site.

Ancient and Veteran Trees

- 5.1.7 BS5837:2012 does not reference a methodology for identifying and recording ancient, veteran, or notable trees. While 'Veteran' is defined in paragraph 3.12 of BS5837:2012, neither 'Ancient' nor 'Notable' are mentioned and owing to the complexity and subjectivity of this subject, there are various methods for defining and classifying Ancient, Veteran, and Notable trees. The terms 'ancient' and 'veteran' are sometimes used interchangeably but it is important to understand that although all ancient trees are considered veteran trees, not all veteran trees are ancient.
- 5.1.8 For this BS5837:2012 assessment, the methodology for defining and classifying these irreplaceable trees as set out by the Woodland Trust (n.d.) (2024) *Recognising and categorising ancient and other veteran trees* has been adopted.
 - **Ancient trees** 'have developed beyond maturity into the ancient life phase and/or are chronologically old in comparison to other trees of the same species.'
 - **Veteran trees** 'are mature trees which, due to their life or environment, have significant decay features (a physical attribute they share with ancient trees) but are neither developmentally nor chronologically ancient.'

5.2 Arboricultural Walkover Survey Summary

5.2.1 A summary of the 12no. arboricultural features recorded has been provided in Table 4 and in the following paragraphs.

Table 4 Arboricultural features recorded and their quality categories in accordance with BS5837:2012

	Category A	Category B	Category C	Category U
Trees	0	4	6	1
Hedges	0	0	1	0
Total	0	4	7	1

- 5.2.2 The survey identified 12no. individual trees (T1–T12) and 1no. hedge (H1) across the Site. The population comprised a mix of conifers and broadleaves, with sycamore (*Acer pseudoplatanus*) and cypress (*Chamaecyparis lawsoniana*) most frequently represented, supplemented by holly (*Ilex aquifolium*) and yew (*Taxus baccata*).
- 5.2.3 Age structure was weighted towards maturity, with 33% mature, 34% early mature, 25% semi-mature, and a smaller component (8%) over-mature. Condition across the surveyed trees was mixed but physiological condition was predominantly good, while structural condition ranged from good to fair.
- 5.2.4 Trees T8, T9 and T10 were situated offsite, within third-party land. Owing to the poor overall condition of T9, considered unsuitable for retention, it is recommended that discussions are held with the owner of T9 to seek appropriate tree management.

5.3 Tree Preservation Orders and Conservation Areas

5.3.1 The arboricultural features recoded on Site and afforded statutory protection by virtue of a TPO are listed in Table 5.

Table 5 Arboricultural Features subject to a Conservation Area

TPO Name/Reference	Designation Date	Arb Innovators Tree Reference
T7 of THE VICARAGE, SHEFFIELD ROAD	Unknown	T1

5.4 Tree Constraints Plan (TCP)

5.4.1 The location of each arboricultural feature and their associated constraints are illustrated on the TCP at Appendix 3. The purpose of the TCP is to visually identify the current above and below-ground constraints imposed by existing arboricultural features in terms of stem, crown, and roots, along with any other notable constraints or Site features. When determining future land use or compiling an outline or detailed scheme design, this information must be considered.

5.4.2 All tree constraints were mapped using Quantum Geographic Information System (QGIS) and Qfield in the field, where a combination of on-site GPS, OS VectorMap (.dwg) and aerial imagery has been used to plot the location of trees and their surrounding context. No Topographical Survey was provided and tree positions are approximate only.

Root Protection Areas (RPA)

5.4.3 A theoretical RPA has been calculated for all arboricultural features in accordance with BS5837:2012 and are demonstrated as pink dashed circles on the TCP provided at Appendix 3. With reference to BS5837:2012, an RPA is defined as *“a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure should be treated as a priority”*.

5.4.4 Numerical RPA data (radius and area in m²) is tabulated in the Tree Schedule at Appendix 2. All stem diameters were measured in accordance with BS5837:2012 Annex C, with RPA delineation guided by Annex D.

5.4.5 For single-stemmed trees, the RPA is calculated as a circle with a radius of 12× the stem diameter (measured at 1.5m above ground level). Multi-stemmed trees require one of two approaches:

- Dominant stem method: Use the diameter of the largest stem.
- Aggregate method: Sum the diameters of all stems exceeding 25mm.

5.4.6 In other cases, root growth could have been impeded by existing, poor growing environments, built form comprising foundations, grey infrastructure such as retaining walls, or ditches and water courses, meaning that a simple circular root protection area may not be appropriate.

5.4.7 Paragraph 4.6.2 of BS5837:2012 states that, *“where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced”* noting that *“modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution”*.

6. Arboricultural Impact Assessment (AIA)

6.1.1 This AIA is undertaken with reference to BS5837:2012 and considers the nature of the Proposed Development.

6.2 Purpose of the AIA

6.2.1 The purpose of the AIA is to assess the anticipated direct and indirect impacts and effects associated with construction of the Proposed Development on existing trees, as described and to the best of our knowledge with the information provided at the time of writing. Section 7.0 of this AIA also includes details on necessary protection, mitigation, and compensation measures where these are deemed appropriate.

6.3 Assumptions and Limitations of the AIA

6.3.1 This AIA has been compiled based on the following assumptions and limitations:

Assumptions

- It is assumed that all trees recorded are under the ownership of the client. No tree removal on third party land will be required to facilitate the Proposed Development.
- All proposed demolition and construction activities will be restricted to the immediate application area and not into areas of third-party land.
- The storage of plant, machinery, and materials will be located outside of RPAs and away from tree crowns, soft verges, and grassed areas. Existing hard surfacing at the front of the Site will be used whenever possible for plant movement and material storage.
- The installation of new underground utilities, services, and surface water drains, as well as details on enabling works, such as the installation or diversion of services and utilities by statutory undertakers, is unlikely to be required within the perceived RPAs of retained trees.
- If deemed necessary, the methodology for the installation, maintenance or removal of any services within an RPA will be in accordance with *NJUG Volume 4 'Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees'*.

Limitations

- Foundation design, excavation requirements, changes in ground levels or the extent of earthworks have not been shared in detail.
- The assessment relies heavily on the accuracy and completeness of the information provided at the time of writing. Any discrepancies or omissions in this information could affect the validity of the assessment.
- This AIA does not consider the impacts, mitigation, or compensation measures for trees affected by other current or previous planning applications. It is recommended to cross-reference with such applications, where relevant, to assess any cumulative impacts on the site's arboricultural resources.

6.4 Reference Documents

6.4.1 As background information, the documentation listed in Table 6 below has been cited. This report should be read in conjunction with the reference materials listed.

Table 6 Reference Document and Plans Provided

Document/Drawing Description	Reference No.	Prepared By	Date
Location and Block Plan	24001-MAD-S1-00-DR-A-00001-T01 - Location and Block Plan	Meridian Architecture	09.08.2024
GA Proposed Plans	24001-MAD-Z1-ZZ-DR-A-03001-T01 - Proposed GA Plans	Meridian Architecture	23.06.2025

6.5 Anticipated Arboricultural Impacts from the Proposed Development

6.5.1 A TRRP is provided at Appendix 3 which illustrates the relationship between the above and below-ground constraints, including the RPAs of retained trees, and the direct and indirect impacts of the Proposed Development.

6.5.2 Where possible, a magnitude of impact has been assigned as per the definitions in Table 7, which balances the magnitude of physical change (e.g. RPA incursion, canopy, amenity, and perceived biodiversity loss) with the sensitivity and public value of the affected trees. Any residual effects are evaluated after mitigation in line with BS5837:2012 and current industry best practice.

Table 7 Arboricultural and Landscape Impact Scale

Magnitude	Definition	Typical Residual Effect*	Illustrative triggers**
Neutral	No feasible impact to any arboricultural feature or material changes in tree health, structure or the character of public/private views.	None.	Removal of Category U feature or understory shrubs with no street-scene contribution may be appropriate.
Negligible	Minor material changes unlikely to be at detriment to tree health, structure or the character of public/private views.	None.	Removal of several low-quality (C1, C2, C3) features/understory tree or shrub with no public amenity value.

Magnitude	Definition	Typical Residual Effect*	Illustrative triggers**
Low	Canopy or roots impacts which do not meet the definitions of 'high' or 'moderate' and are unlikely to have a long-term impact on the condition of the arboricultural feature/s, with only a localised reduction in visual amenity.	< 5 yrs with normal management; mitigation feasible to limit impacts, no reduction in BS5837:2012 category. Compensatory planting recommended.	≤ 20% RPA incursion by low-impact surfacing or excavation to a low-quality feature; removal of visually prominent low quality C1 (individual) features and/or complete loss or > 40% canopy loss from low quality groups or woodlands (C2, C3).
Moderate	Substantial canopy or root impacts that could lower retention value of the feature or result in the loss of arboricultural and biodiversity resource.	Mid-term (15+ years) but ultimately recoverable deficit if recommended mitigation succeeds. Compensatory planting essential.	≤ 20% RPA incursion by low-impact surfacing or excavation to moderate-quality features (B1, B2, B3); loss of Category B1, B2, B3 features screened from wider public views.
High	Major adverse change impacting long-term viability or pronounced degradation of arboricultural, amenity and biodiversity value. Irreversible loss of key arboricultural assets (Category B1, B2, B3 and A1, A2, A3) that conflicts with national and local planning policy objectives or statutory conservation designations.	Long-term (25+ years) deficit even with best-practice mitigation and compensation; could be grounds for refusal.	> 20% RPA incursion to a retained feature requiring extensive mitigation measures; removal of several visually prominent Category B1, B2, B3 features; removal of one or more Category A1, A2, A3 features.

*Residual effect = condition/amenity level after the mitigation specified (replacement planting, no-dig cellular-confinement paths, etc.). **Indicative only.

Arboricultural Features to be Removed

- 6.5.3 It is recommended that 2no. low quality trees subject to this assessment (T2 and T3) along with a c. 6m section of H1, are removed to facilitate the Proposed Development. The proposed losses are to low quality (Category C) trees. These features will be directly impacted by the footprint of the proposed extension.
- 6.5.4 None of the existing trees at the front of the property will be impact by the Proposed Development and as such, have not been discussed further.
- 6.5.5 Owing to the poor overall condition of T9, considered unsuitable for retention, it is recommended that discussions are held with the rightful owner of T9 to seek appropriate tree management.

Table 8 Summary of the features impacted by the Proposed Development

	Category A	Category B	Category C	Category U
Retain		T6, T7, T10	T4, T5, T8, T11	T9
Retain using mitigation measures		T1		
TOTAL	0	4	4	1
Remove in full			T2, T3	
Partial Removal			H1	
TOTAL	0	0	3	0

6.5.6 The loss of 2no. low quality trees obscured from public view and offering limited visual amenity, contributing little to the arboricultural resource, would not constitute a significant impact nor a negative consequence of the Proposed Development. The impact is considered **negligible**.

Direct Impacts to RPAs of Retained Trees

- 6.5.7 The default position under BS 5837:2012 is for all permanent and temporary structures to be positioned outside the RPAs of trees to be retained. This extends to earthworks, including cut-and-fill operations, excavation and trenching works. Where incursion is unavoidable its extent shall be reduced to the lowest practicable level (para. 5.3.1). BS5837:2012 further states that such incursion “*should not exceed 20 % of any existing unsurfaced ground within the RPA.*”
- 6.5.8 The greatest constraint to the Proposed Development is presented by the nominal RPAs of trees T1 (Category B) and T8 (Category C). No new permanent encroachment into the RPAs of these trees is presently proposed however, excavation of soils to account for the current, gentle slope, is likely, with a cut and fill assumed, along with a new, low retaining wall. It is important to note that the circular RPA calculated in accordance with BS5837:2012 is indicative only. This new incursion will be at the outer edge of the notional RPA and accounts for an area of less than c. 5%.
- 6.5.9 Providing earthworks (e.g. cut, fill and/or re-grading to achieve finished levels) are undertaken under arboricultural supervision using low-impact techniques (hand-digging), the risk of significant physiological or structural harm to both T1 and T8 is assessed as **low to moderate**.
- 6.5.10 Any tree roots encountered which measure <25mm diameter may be severed using hand tools only (secateurs) and only where necessary. Any exposed roots should be immediately wrapped with wet hessian whilst the excavation is open to mitigate against root desiccation and, as a temporary measure, surrounded with a loose granular infill prior to backfilling with appropriate topsoil. Wherever possible, as much rooting density as possible must be retained.

6.5.11 A formal Arboricultural Method Statement (AMS) should be prepared detailing protections measures and a robust working methodology.

6.6 Anticipated Indirect Impacts from the Proposed Development

Spatial Requirements for Contractors during Demolition and Construction

- 6.6.1 During construction, contractors will require adequate space to work, and it is likely that the construction of the Proposed Development will require a 2m working corridor from the extent of its footprint to allow for the erection of scaffolding and passage of materials to construct the exterior walls. The activity must be limited to pedestrian movements and the erection of scaffolding only; no plant or material storage is proposed in these areas.
- 6.6.2 The 2m working corridor will extend into the RPAs of trees T1 and T8. As such, in accordance with BS 5837:2012 Clause 6.2.3, the following temporary ground-protection measures must be installed and will remain in place, until external works are complete.

Table 9 Temporary Ground-Protection (TGP) Specification

Description	Minimum requirement	BS 5837 reference
Build-up option A – suspended walkway (preferred on soft ground)	Scaffold framework driven outside the RPA or founded on baseplates bearing through load-spreading timber beams; 38 mm scaffold boards fixed on the frame to provide a continuous deck.	Clause 6.2.3.3(a) & Note a
Build-up option B – low-dig granular	Geotextile separation layer; 100 mm depth clean woodchip or 50 mm angular gravel (no fines) lightly tamped; over-laid with 18 mm plywood or double scaffold boards laid at right-angles.	Clause 6.2.3.3(c)

- 6.6.3 The full Arboricultural Method Statement, to be secured by pre-commencement condition, will:
 - Confirm the chosen TGP build-up with supplier data sheets or load-spread calculations.
 - Integrate TGP installation and removal into the construction phasing plan; and
 - Include a monitoring log signed off by the ACoW and made available to the LPA on request.

Installation of New Underground Services and Utilities

6.6.4 No detailed service plans have been shared, nor do the referenced drawings demonstrate any new services or utilities. Where possible, new services should be placed beyond RPAs of retained trees. Where unavoidable, the following mitigation measures must apply:

- Careful routing of services. If deemed necessary within the RPA, the methodology for the installation, maintenance or removal of any services will be in accordance with *NJUG Volume 4 'Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees'*.
- Use of minimal-dig construction techniques (e.g., hand-digging trenches, using hand tools only).
- Installation of tree protection fencing beyond the developable area to form CEZs.
- Implementation of site-specific tree protection measures and continuous arboricultural supervision during works, where deemed necessary.

6.6.5 NJUG is industry-standard good practice for all situations where utilities abut tree roots. BS5837:2012 7.1.3 defers to NJUG guidance *"as a minimum standard, such operations should be undertaken in accordance with NJUG Volume 4, issue 2 [NI]"*. The NJUG principles (hand excavation, root-zone backfill, protective boards, root-pruning diameter thresholds, ACoW supervision, etc.) are applicable irrespective of land ownership and use and is considered appropriate in relation to the Proposed Development.

6.6.6 If it becomes apparent that services are required inside the perceived RPAs of retained trees, a more thorough study of the arboricultural impacts will be necessary.

Concrete Leachate, Dust and Sediment Pollutants

6.6.7 The installation of a concrete foundations for the Proposed Development in proximity to retained trees (within c.5m) has the potential to indirectly impact the RPAs of retained trees. Spilt solid or liquid chemicals that reach RPAs can kill existing roots which may result in long-term and potentially irreversible damage or death of trees and hedges. It is essential that measures are in place to minimise the risk of soil contamination.

6.6.8 It is recommended that where wet concrete is poured for foundations, an impermeable liner is used to prevent contamination of the soil from any leachate and prevent spillage and contamination beyond the area of installation. Other sediment and leachate mitigation detailed should include:

- Cut-off ditches or geotextile silt-fences, installed around excavations, exposed ground and stockpiles to prevent uncontrolled release of sediment.
- All potentially contaminated waters (for example washdown areas, stockpiles and other areas of risk for water contamination) to have separate drainage.
- Any contaminated waters would be taken away by tanker from the Sites.
- Vehicles carrying material off-Site will be sheeted to prevent the spread of dust.

6.6.9 A formal AMS should set out appropriate mitigation measures to be adhered to throughout both onsite demolition and construction. The feasibility and appropriateness of any proposed design modifications or mitigation measures should be assessed and recommended by a qualified Structural Engineer.

6.7 Above Ground Constraints and Considerations

6.7.1 The above ground constraints predominantly refer to the impact of the crown or canopy of any retained tree/s and hedges on the Site either by size and form, shading, and nuisance factors. The above ground constraints imposed by trees should be considered in relation to the following:

- The crown's extent and its relationship to any structures. The primary consideration should be whether there will be enough space to prevent branches from damaging structures, post-construction, or increase the likelihood of unnecessary tree pruning to abate a nuisance.
- The proportion of open space beneath the crown and if this will obstruct construction access or on-site activities and is it adequate for the passage of both vehicles and pedestrians.
- Seasonal nuisance (e.g., leaf fall blocking gutters, fruit fall creating slippery patches and honey dew dripping on vehicles and surfaces).

6.7.2 Shade cast from trees T1 and T8 will require careful consideration to avoid post-development pressure to unnecessary prune or remove trees. The proposed extension will incorporate skylights and floor to ceiling windows. No further tree losses are required to negate the level of shade cast.

6.7.3 Alongside considering the effects from retained trees, the Proposed Development needs to also consider new tree planting which will form an integral part of any new development. Proposals for new tree planting should be appropriate for the future use of the site and not just aim to improve the existing tree population. Careful consideration would need to be given to the following:

- Ultimate height and canopy spread
- Tree form and habit
- Density of the crown
- Potential shading effect
- Foliage colour
- Water demand in relation to soil types
- Ongoing maintenance requirements

Tree Surgery and Tree Works (Preliminary Specification)

6.7.4 A preliminary specification of tree works is provided in Table 10.

Table 10 Preliminary Tree Works Specification

Tree Reference No.	Description of Tree Works	Reason	BS5837:2012 Category	Statutory Constraints
T2	Remove	To facilitate the construction of the Proposed Development	C1	None
T3	Remove	To facilitate the construction of the Proposed Development	C1	None

Tree Reference No.	Description of Tree Works	Reason	BS5837:2012 Category	Statutory Constraints
H1	Partial removal	To facilitate the construction of the Proposed Development	C2	None

- 6.7.5 All tree works undertaken must comply with *British Standard 3998:2010 – Tree Work Recommendations* and should therefore be carried out by skilled tree surgery contractors, ideally Arboricultural Association Approved Contractors.
- 6.7.6 Prior to any tree removal being carried out, due regard must be given to any legal restrictions on tree pruning. All vegetation and, particularly, woody vegetation proposed for clearance, must be removed outside of the bird-breeding season (March - September inclusive). Birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. If this is not practicable, a qualified Ecologist should inspect the vegetation to be removed or pruned for the presence of nesting birds.
- 6.7.7 Consideration should also be given to roosting bats which are protected by Regulation 43 of The Conservation of Habitats and Species Regulations 2017 (as amended).

6.8 Hard and Soft Landscaping

- 6.8.1 No formal proposal for both hard and soft landscaping have been provided at the time of writing this assessment. However, to compensate for any proposed losses, it is recommended that new structured tree planting is implemented throughout the Proposed Development. It is recommended that a planned and coordinated approach to the management and upkeep of the development's soft landscape elements is formalised. This will guarantee the successful establishment of new vegetation and tree cover and, where practical, the integration of the existing trees into the surrounding landscape.
- 6.8.2 Along with native planting, additional ornamental species could be introduced to the Proposed Development. These species will enhance the urban environment by increasing biodiversity while also adding visual amenity. The careful selection of diverse trees will provide benefits such as seasonal colour, wildlife encouragement, enhanced screening of vistas or structures from adjoining public highways and reinforcing others.
- 6.8.3 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.
- 6.8.4 Any new trees to be planted should be specified according to the recommendations in *BS 8545 (2014) Trees: from nursery to independence in the landscape –Recommendations*.

7. Arboricultural Method Statement (AMS) 'Heads of Terms'

- 7.1.1 A draft heads-of-terms schedule of the key principles of tree protection for the Proposed Development is set out below. At this stage in the planning process and in accordance with clause 5.5.6 of BS 5837:2012, it is sufficient to list the issues that will require more detailed consideration once consent is granted.
- 7.1.2 This heads of terms demonstrates the feasibility of the scheme's tree-protection strategy (BS 5837:2012 Table B.1) and provides the Local Planning Authority (LPA) with sufficient information to determine the application.
- 7.1.3 A detailed AMS shall be secured by pre-commencement planning condition (or reserved matter, as appropriate). The full AMS will:
- Set out an annotated Tree Protection Plan (TPP) and phasing diagram.
 - Outline a robust methodology for tree protection measures.
 - Prescribe the sequencing of demolition, construction and landscaping in relation to tree constraints; and
 - Include site-specific risk assessments, monitoring schedules and reporting templates.

7.2 AMS 'Heads of Terms'

- Preparation of a written site management protocol for dealing with tree issues, to specifically include induction training for all operatives related to tree protection, as well as documenting who is responsible for protecting the trees on site.
- Appointment of a qualified project arboriculturist to act as Arboricultural Clerk of Works (ACoW) and provide on-call advice.
- Sequenced programme of works (demolition, site clearance, groundworks, construction, landscaping) cross-referenced to the TPP.
- Emergency procedures for unforeseen or accidental root/branch damage, including immediate notification to the ACoW and remedial specification.
- Specification, erection and maintenance of Tree Protection Fencing (TPF) and ground-protection systems, referencing BS 5837:2012 Figure 3 and Clause 6.2.3.
- Methodologies for working within RPAs, including access of excavators, cranes, concrete pumps and piling rigs, and any access-facilitation pruning authorised by the LPA.
- Pollution-prevention controls, including chemical storage, wash-down areas and silt traps, located outside RPAs or on approved ground-protection surfacing.
- Confirmation that underground and overhead services will avoid RPAs or employ trenchless techniques (e.g. thrust bore) where avoidance is impossible.

7.3 General Protection Measures for Retained Trees

- 7.3.1 During construction, retained trees within influencing distance of the works must be protected by robust TPF installed at the calculated RPAs to form Construction Exclusion Zones (CEZs).

- 7.3.2 The barriers shall comply with the specification in BS 5837:2012 and remain in place for the full duration of the works unless written approval for alteration is obtained from the LPA following advice from the ACoW.
- 7.3.3 The tree-protection measures should adhere to the recommendations in BS5837:2012. The purpose of these measures should be understood and well-considered from the start, as they protect trees to be retained within and adjacent to the Site while allowing adequate access for the implementation of the Proposed Development.
- 7.3.4 Oil, bitumen, cement, or any other potentially hazardous material to trees shall not be stored, mixed or discharged within 10 metres of a tree stem. Concrete mixing and washings are to be confined to a lined containment area.
- 7.3.5 No fires are permitted within 5 m of any tree crown (allowing for wind drift). No signs, notices, cables or other apparatus shall be attached to retained trees.

7.4 Arboricultural Clerk of Works (ACoW)

- 7.4.1 It is recommended that the client appoints a suitably qualified arboriculturist to act as an ACoW. The ACoW will be engaged to monitor and oversee the implementation of the works required. The role of the ACoW is a relatively formal one. Normally their involvement should be limited to several site visits where decisions can be made relatively quickly.
- 7.4.2 The ACoW will also be the first contact for arboricultural advice for any issues that arise that are not detailed in this report, such as extra tree works, work required within the RPA of the trees on-site, any damage that has occurred to any of the retained/unmanaged trees, or any breach of the tree protection measures on-site.
- 7.4.3 During the various stages of the Development a record of the completion of the various tree protection works will be kept by the ACoW. This will provide the Council with sufficient evidence that all practicable steps have been taken to prevent damage to the trees, thereby ensuring compliance to the Planning Conditions.

7.5 Tree Protection Fencing (TPF)

- 7.5.1 The TPF should be robust enough to restrict being breached from the type of construction activity taking place on Site and suitable for the degree and proximity of works to retained trees. Fencing to be installed must be periodically inspected to ensure that they remain fit for purpose and, where required, maintained, or improved throughout the duration of demolition and construction activities on Site.

Default TPF Specification

- 7.5.2 Panels of welded mesh (e.g. Heras HSG 151) mounted on a braced scaffold framework driven into stable ground, in accordance with BS 5837:2012 Figure 3.
- 7.5.3 Barriers shall be installed before any site-enabling works commence. They may only be moved or altered with the written approval of the ACoW and LPA.
- 7.5.4 Tree Protection Fencing and the CEZ is to be clearly marked using appropriate signage. These signs shall be laminated to ensure they last the duration of the construction works and shall be fixed to the fencing panels every 5-10 metres along its length.

7.5.5 These tree protective measures will ensure suitable protection of trees and associated soils. Given the size of the development there is sufficient space for materials and machinery to be stored within the Site, on areas of existing hardstanding and therefore there it anticipated there will be no requirement to move the non-default fencing during the development.

7.6 Erection of Scaffolding with the RPA

7.6.1 Where scaffolding is required inside an RPA it shall be founded on appropriate ground-protection (BS 5837:2012 Clause 6.2.3.3 Note a).

7.6.2 It will comprise of either a suspended wooden walkway (or placed on top of a driven scaffold frame, to form a suspended walkway), or on top of a compression-resistant layer (e.g., 100mm depth of woodchip), laid onto geotextile base overlaid with wooden boards. This will significantly reduce the likelihood of ground compaction.

7.7 Piling rigs and Cranes

7.7.1 Work must be carefully planned so that there is sufficient room to avoid hitting the canopies of retained trees during transportation or operation. Loads that are wide or tall should not encounter retained trees. Arboricultural supervision may be required however; it is the responsibility of the contractor to assess and plan the work.

7.7.2 Access-facilitation pruning (if required) is detailed in the approved tree-surgery schedule and must be completed before plant mobilisation.

7.8 Site Compounds, Portakabins, Containers, and other Temporary Structures

7.8.1 Site compounds, Portakabins, Containers, and other temporary structures may be used in root protection areas in some cases if prior consent is obtained from the acting local planning authority. Prior to installation, the method for installing the buildings and an assessment of whether temporary ground protection is required must be agreed upon and specified with the ACoW.

7.9 Ongoing Arboricultural Monitoring of Retained Trees

7.9.1 Retained trees with potential to be affected by demolition or construction shall be inspected by the ACoW:

- pre-start,
- at critical stages (e.g. groundworks, service installation), and
- post-completion.

7.9.2 The monitoring regime ensures that tree-protection measures remain effective, newly arising issues are addressed promptly, and the landowner's duty of care is satisfied (BS 5837:2012 Clause 8.8.3).

8. Conclusions and Recommendations

- 8.1.1 This Arboricultural Impact Assessment (AIA) has been prepared for a Proposed Development at The Beeches, Halifax Road, Thurgoland, Sheffield, S35 7AL in accordance with *BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations* (The British Standards Institution, 2012).
- 8.1.2 A survey of trees on the Site, including those within influencing distance, was undertaken on 29 August 2025 to fulfil the requirements of BS5837:2012. The tree survey identified 12no. arboricultural features including 11no. individual trees and 1no. hedge. Most of the tree cover was of a low quality (Category C) and none of the trees were of a high quality (Category A).
- 8.1.3 None of the existing trees at the front of the property will be impact by the Proposed Development and as such, were not assessed or discussed in further detail.
- 8.1.4 It is recommended that 2no. low quality trees subject to this assessment (T2 and T3) along with a c. 6m section of H1, are removed to facilitate the Proposed Development. The proposed losses are to low quality (Category C) trees. These features will be directly impacted by the footprint of the proposed extension.
- 8.1.5 The loss of 2no. low quality trees obscured from public view and offering limited visual amenity, contributing little to the arboricultural resource, would not constitute a significant impact nor a negative consequence of the Proposed Development. The impact is considered **negligible**.
- 8.1.6 The greatest constraint to the Proposed Development is presented by the nominal RPAs of trees T1 (Category B) and T8 (Category C). No new permanent encroachment into the RPAs of these trees is presently proposed however, excavation of soils to account for the current, gentle slope, is likely, with a cut and fill assumed, along with a new, low retaining wall. It is important to note that the circular RPA calculated in accordance with BS5837:2012 is indicative only. This new incursion will be at the outer edge of the notional RPA and accounts for an area of less than c. 5%.
- 8.1.7 Providing earthworks (e.g. cut, fill and/or re-grading to achieve finished levels) are undertaken under arboricultural supervision using low-impact techniques (hand-digging), the risk of significant physiological or structural harm to both T1 and T8 is assessed as **low to moderate**.
- 8.1.8 An Arboricultural Method Statement (AMS) appropriate for this development should be formalised.



TREE SURVEY METHODOLOGY

APPENDIX 1



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BS5837:2012 Methodology

The tree survey was carried out with reference to the methodology set out in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

Stage 1: Tree Constraints & Feasibility Study - for most planning applications where there are trees on or adjacent to a site, an initial assessment of the tree population and tree constraints will be required. This should be instructed as early as possible in the planning process and includes:

- Tree Survey Schedule: Presents data collected during the tree survey which is made to identify & categorise all trees that may be impacted by a proposal.
- Tree Constraints Plan: Tree locations, retention categories and consideration of associated above and below ground constraints.
- Tree Constraints and Opportunities Assessment: A preliminary report written to inform the design and layout of future development of the site.

Stage 2: Arboricultural Impact Assessment & Outline Mitigation Measures. This will be normally be required following a Stage 1 survey and report. Components will vary depending on design complexity, but may include:

- Arboricultural Impact Assessment (AIA): An assessment of the anticipated impact of the proposed development on the tree population (existing & proposed).
- Draft Tree Protection Plan (where appropriate): Indicative plan of tree protection measures.
- 'Heads of Terms' Arboricultural Method Statement: Outlines principles of the methodology required to mitigate impact on existing trees.

BS5837:2012 outlines guidance on how to assess an arboricultural feature's quality and advises on assessing both direct and indirect impacts. Neither a methodology for defining impacts nor specific criteria for determining an arboricultural feature's perceived sensitivity are provided.

Stage 3: Detailed Tree Protection & Discharge of Conditions. This is sometimes required following a Stage 2 report if the tree protection requirements are complex; or if there is a planning condition or reserved matters requirement to do so. The stage three report may include the following components:

- Detailed Tree Protection Plan (TPP).
- Arboricultural Method Statement (AMS): detailed methodology to include arboricultural supervision and site monitoring schedule (if required).

Stage 4: Arboricultural Supervision & Post-Construction. This may include:

- Written report as evidence of arboricultural supervision, site monitoring, reinstatement, and planting and aftercare (as required).

RIBA Design Guidance

The approach adopts the guidelines set out in the British Standard BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations.

The process is broken down to coordinate broadly with the key elements within both the RIBA Plan of Work (2013) and British Standard 5837:2012 as set out in the table below:

Information Stage	RIBA Stage	BS5837:2012
Stage 1: Tree Survey	2: Concept	4: Feasibility
Stage 2: Arboricultural Impact Assessment	3: Developed Design	5: Proposals
Stage 3: Arboricultural Method Statement and Tree Protection Plan	4: Technical Design	6: Technical Design
Arboricultural Supervision & Post-Construction.	5: Construction	7: Demolition and construction

The trees on the Site were originally surveyed without reference to site layout as detailed in paragraph 4.4.1.1 of BS5837:2012. However, for the purposes of the Arboricultural Impact Assessment the Proposed Development for the Site has been considered.

The survey includes all trees with an estimated stem diameter of 75mm or more measured at 1.5m above ground level that are located within the site or that overhang the site.

Trees were surveyed individually or as groups where it was considered that they had grown together to form cohesive arboricultural features either aerodynamically (trees that provide companion shelter), visually (e.g. avenues or screens) or culturally (including for biodiversity). However, where it was considered that there was an arboricultural need to differentiate between attributes trees within groups and / or woodlands were also surveyed as individuals.

Within the tree survey schedule, each surveyed Tree (T), Group (G), Hedge (H), Woodland (W) on or adjacent to the site is given a reference number. Metal tags have not been used for this survey as identification on-site does not require this. The tree numbers associated with each tree are cross referenced within the schedule and plans at Appendix 2 and 3 respectively.

Full details of the dimensions and measurements recorded including detailed definitions, can be found at Appendix 2.

Tree condition, health and structural integrity were inspected in accordance with the Visual Tree Assessment (VTA) method (*Mattheck 2007*), which provides a systematic framework for formal tree inspection, as summarised:

- 1.VTA Stage 1 - Inspection of the tree for visual evidence of internal defects.
- 2.VTA Stage 2 – Confirmation of defects and measuring their extent.
- 3.VTA Stage 3 – Assessment of defects and estimation of residual strength.

Ancient Woodland, Ancient, Veteran and Notable trees

BS5837:2012 does not reference a methodology for identifying and recording ancient, veteran, or notable trees. While 'Veteran' is defined in paragraph 3.12 of BS5837:2012, neither 'Ancient' nor 'Notable' are mentioned. Due to the complexity and subjectivity of this subject, there are various methods for defining and classifying Ancient, Veteran, and Notable trees.

For this BS5837:2012 assessment, the methodology set out by the Woodland Trust (n.d.) (2024) *Recognising and categorising ancient and other veteran trees* has been adopted.

The Forestry Commission (FC) and Natural England (NE) have published guidance and recommendations to safeguard Ancient Woodland, Ancient, and Veteran trees against development. In summary this guidance advises on the use of semi-natural buffer zones as a means of protection with minimum distances identified as:

- Fifteen metres between any development and ancient woodland.
- Fifteen times the diameter of its stem or 5m from the edge of its canopy, if that's greater, around any ancient or veteran tree.

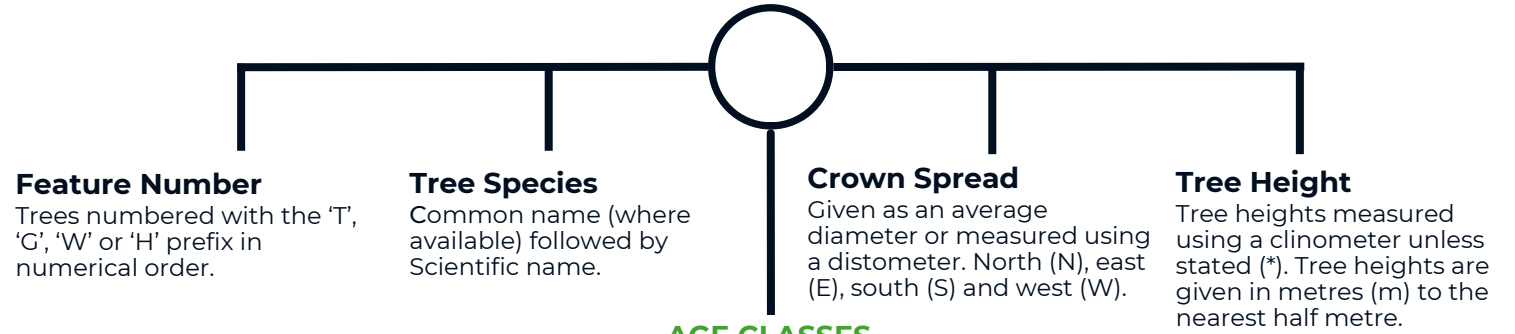


BS5837 TREE SURVEY SCHEDULE

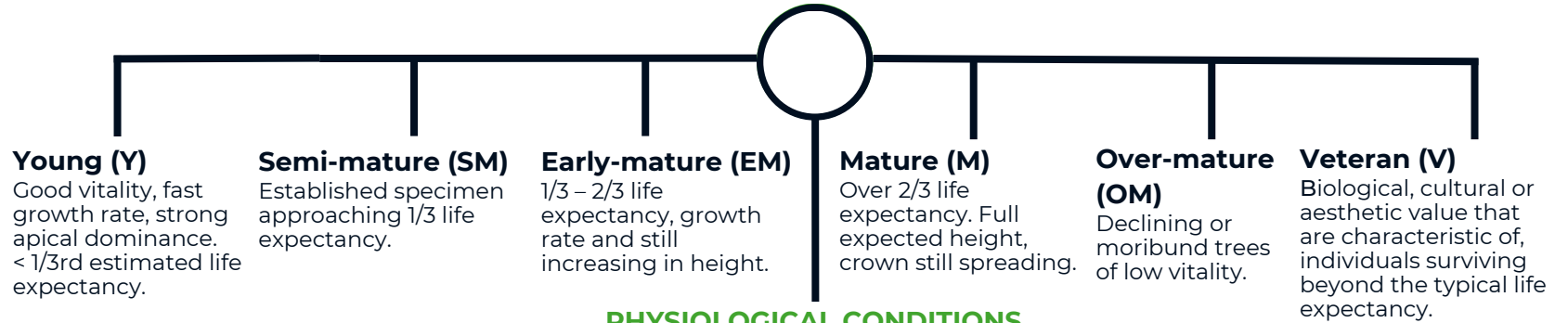
■ APPENDIX 2

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MEASUREMENTS AND IDENTIFICATION



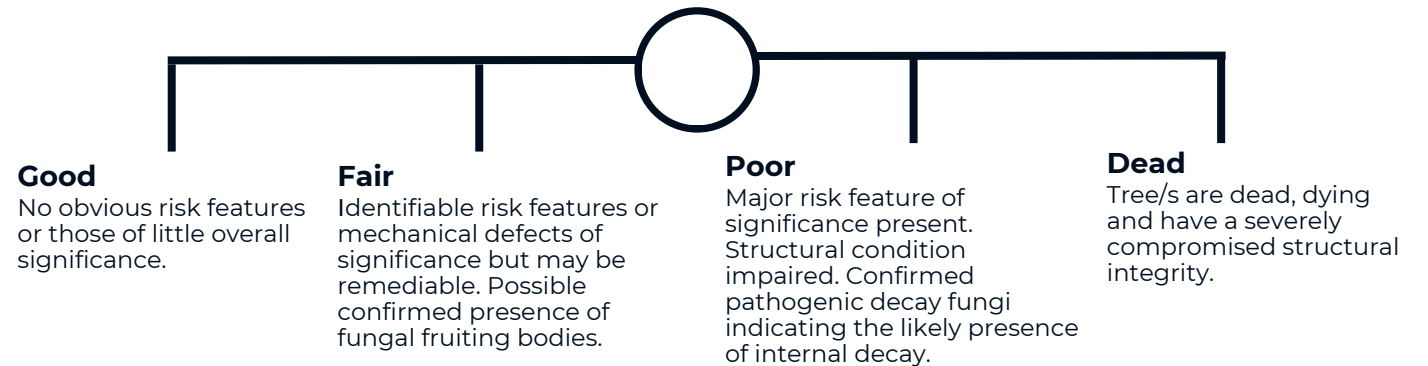
AGE CLASSES



PHYSIOLOGICAL CONDITIONS



STRUCTURAL CONDITIONS



Root Protection Area (RPA)

The below ground constraints are generally summarised as the RPA. The RPA is an area equivalent to a circle with a radius 12 times the diameter of the trees measured at 1.5 metres for single stemmed trees. For trees with more than one stem, one of two calculation methods should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be guided from Annex D of BS5837:2012. Both RPA radius in metres from the main stem and total area for the RPA as square metres are provided.

Where veteran trees have been identified the RPA has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter or 5m beyond the crown whichever is greater. An average stem diameter is provided for tree groups, wooded areas and hedges.

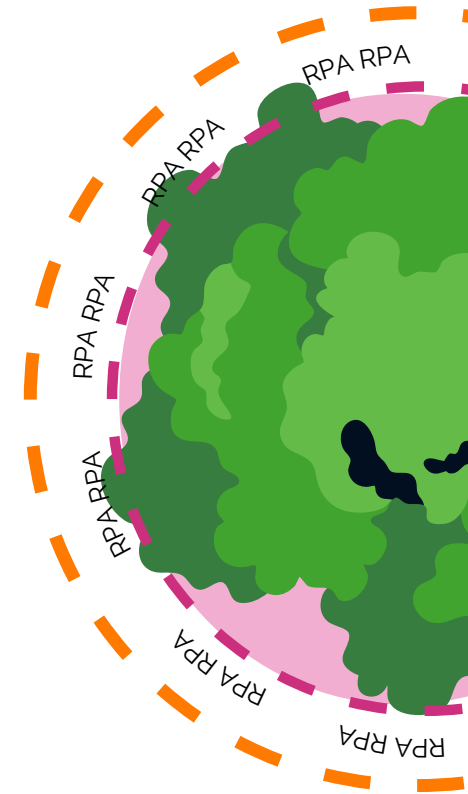
General Notes

Metal tags have not been used for this survey as identification on-site does not require this. Where they are present, they may have been recorded.

The tree numbers associated with each feature recorded are cross-referenced within the schedule and plans at Appendix 3. Small trees with a stem diameter less than 75mm were not surveyed as they would either be easily replaced or relocated.

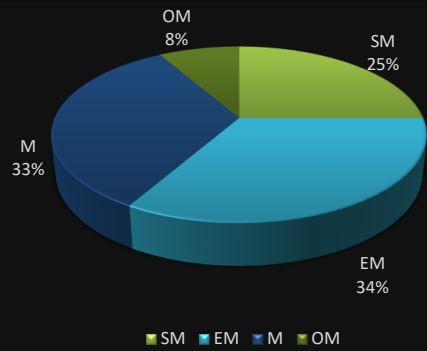
Abbreviations

- est - Estimated stem diameter
- avg - Average stem diameter for multiple stems
- upto - Maximum stem diameter of a group



Age Distribution of the Tree Population.

The distribution of the tree populations age is useful for understanding expected longevity which can help inform the BS5837 useful life expectancy, and help homeowners or property managers to make informed decisions on mitigation, tree management and replacement.



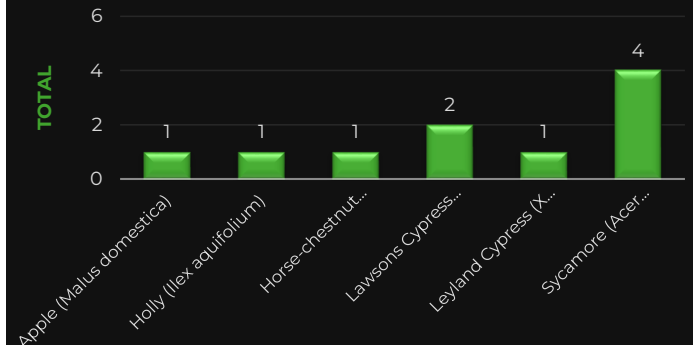
Distribution of Physiological and Structural Conditions across the Tree Population.

Physiological condition provides an indication of the vitality of the tree. Structural condition is related to the presence of defects that can lead to failures.



Species Composition of the Individual Tree Population.

The proportions of any given family, genus, species, and cultivar which make up the total individually recorded tree population across the Site.



Ancient Woodland and Ancient, Veteran and Notable Trees

Ancient Tree - A tree that has passed beyond maturity and is old, or aged, in comparison with trees of the same species. Characterised by biological, cultural, or aesthetic features of interest.

Ancient Woodland - Any wooded area that has been continuously wooded since 1600 AD

Veteran Tree - Exhibiting features of biological, cultural, or aesthetic value characteristic of species surviving beyond the typical age range.

Notable Tree - mature trees which may stand out in the local environment because they are large in comparison with other trees around them.

Forestry Commission and Natural England Guidance for the protection of ancient woodland, ancient trees and veteran trees from development and the use of semi-natural buffer zones:

- Fifteen metres between any development and ancient woodland.

- Fifteen times the diameter of its stem or 5m from the edge of its canopy, if that's greater, around any ancient or veteran tree.

ANCIENT WOODLAND

0

ANCIENT TREES

0

VETERAN TREES

0

NOTABLE TREES

0

BS5837:2012 TREE SURVEY SCHEDULE

CATEGORY A	CATEGORY B	CATEGORY C	CATEGORY U				
Trees with an estimated remaining contribution 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.	Trees 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 or trees lacking the special quality necessary to merit the category A designation.	Trees with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	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.				
Sub-categories	Mainly arboricultural value 1	Mainly landscape value 2	Mainly cultural or conservation value 3				
Summary of Individual trees, Groups, Woodlands and Hedges							
0	T1, T6, T7, T10	T2, T3, T4, T5, T8, T11, H1	T9				
0	4	7	1				
Estimated Remaining Contribution (ERC)							
> 40 years	> 20 years	< 20 years	< 10 years				
Breakdown of Arboricultural Features for each BS5837:2012 Category							
Trees	0	Trees	4	Trees	6	Trees	1
Groups	0	Groups	0	Groups	0	Groups	0
Woodlands	0	Woodlands	0	Woodlands	0	Woodlands	0
Hedgerows	0	Hedgerows	0	Hedgerows	1	Hedgerows	0
Percentage of tree population	0.0%	Percentage of tree population	33.3%	Percentage of tree population	58.3%	Percentage of tree population	8.3%
<p>In assigning the BS5837:2012 Category, particular consideration has been given to the presence of any structural defects for each feature, the size and form of each feature, its suitability within the context of a proposed development, and the location of each feature relative to existing site features e.g. its screening value or landscape amenity value.</p>							

INDIVIDUAL TREES																		
TREE NO.	TAG NO.	SPECIES (COMMON & SCIENTIFIC NAME)	HEIGHT (m)	NO. OF STEMS	STEM DIA (mm)	CROWN SPREAD (m)				CROWN CLEAR (m)	AGE CLASS	PHYS COND	STRUC COND	ASSESSMENT OBSERVATIONS AND PRELIMINARY RECOMMENDATIONS	ESTIMATED REMAINING CONTRIBUTION (erc)	BSS837 CATEGORY	RPA (m ²)	RPA RADIUS (m)
T1	0	Sycamore (Acer pseudoplatanus)	18	1	860	6.5	6	6	3	5	M	Fair	Fair	Canopy full though some chlorosis noted. Side branches to E have been removed leaving wounds forming minor cavities. Area of bacterial canker on stem at 4m just above bole, see photo ; Asymmetric crown form, Branch socket cavities observed, Compacted ground at the base, Crown had been unsympathetically reduced, Epicormic growth evident within the crown.	20+	B1	334.6	10.3
T2	0	Lawsons Cypress (Chamaecyparis lawsoniana)	4	1	40	0	0.5	0.5	0.5	0	SM	Good	Good	Small cypress adjacent to building. Insignificant but adjacent to works ; Multi-stemmed from base ; Limited life span due to proximity to house.	10+	C1	0.7	0.5
T3	0	Holly (Ilex aquifolium)	2	1	50	0.5	1	1	0	0.5	SM	Good	Fair	Small pruned holly, cut to form dense crown to ground. Growing adjacent to wall and patio and one sided due to conifer hedge.	10+	C1	1.1	0.6
T4	0		5	1	190	2	0	2	2	2.5	EM	Good	Poor	Twin stem at 2m, included and suppressed stem leaning to west; Asymmetric crown form, Included bark union.	10+	C1	16.3	2.3
T5	0	Leyland Cypress (X Cuprocyparis leylandii)	6	1	260	1.5	1.5	1.5	1.5	0.5	EM	Good	Good	No obvious defects. Well pruned, including top.	20+	C1	30.6	3.1
T6	0	Lawsons Cypress (Chamaecyparis lawsoniana)	4.5	1	80	1	1	1	1	0.5	EM	Good	Good	No obvious defects. Well pruned including top.	20+	B1	2.9	1.0
T7	0	Sycamore (Acer pseudoplatanus)	16	1	580	5	3.5	5	5	5	M	Fair	Fair	Twin stemmed from 2.5m. ivy has been severed and now dead in crown. Basal wound exposing heartwood on N side, surface decay only and no evidence of fungi ; Cavity at base, Heartwood exposed.	20+	B1	152.2	7.0
T8	0	Horse-chestnut (Aesculus hippocastanum)	20	1	1000	7	4	7	8	4	OM	Fair	Fair	Off-site tree, forms the other half of T1 canopy. Tree has scars of bleeding canker on main stem visible above the hedge. Pruning wounds and cavities forming also noted.	10+	C1	452.4	12.0
T9	0	Sycamore (Acer pseudoplatanus)	16	1	860	4	9	4	4	3	M	Poor	Poor	Leaning stem to east, not more than 10degrees but increasing towards top. Severe dieback in upper crown. Likely caused by fungal pathogen but dense ivy at the base obscured inspection. ; Asymmetric crown form, Dieback of the crown observed.	<10	U	334.6	10.3

INDIVIDUAL TREES																		
TREE NO.	TAG NO.	SPECIES (COMMON & SCIENTIFIC NAME)	HEIGHT (m)	NO. OF STEMS	STEM DIA (mm)	CROWN SPREAD (m)				CROWN CLEAR (m)	AGE CLASS	PHYS COND	STRUC COND	ASSESSMENT OBSERVATIONS AND PRELIMINARY RECOMMENDATIONS	ESTIMATED REMAINING CONTRIBUTION (erc)	BSS837 CATEGORY	RPA (m ²)	RPA RADIUS (m)
T10	0	Sycamore (Acer pseudoplatanus)	18	1	580	3	4	4	5	5	M	Good	Good	Cut ivy on main stem. No major defects noted.	20+	B1	152.2	7.0
T11	0	Apple (Malus domestica)	4	1	70	3	3	2.5	2.5	2	EM	Fair	Fair	Typical garden apple tree, no major obvious defects ; Crossing and rubbing branches, Multi leadered form from crown break.	20+	C1	2.2	0.8

HEDGES																			
TREE NO.	TAG NO.	SPECIES (COMMON & SCIENTIFIC NAME)	MIN HEIGHT (m)	MAX HEIGHT (m)	NO. OF STEMS	STEM DIA (mm)	CROWN SPREAD (m)				CROWN CLEAR (m)	AGE CLASS	PHYS COND	STRUC COND	ASSESSMENT OBSERVATIONS AND PRELIMINARY RECOMMENDATIONS	ESTIMATED REMAINING CONTRIBUTION (erc)	BS5837 CATEGORY	RPA (m ²)	RPA RADIUS (m)
H1	0	{Leyland Cypress (X Cuprocyparis leylandii)}	2.5	3	1	75	0.5	0.5	0.5	0.5	0	SM	Good	Fair	Maintained hedge. Typical cypress hedge.	40+	C2	2.5	0.9

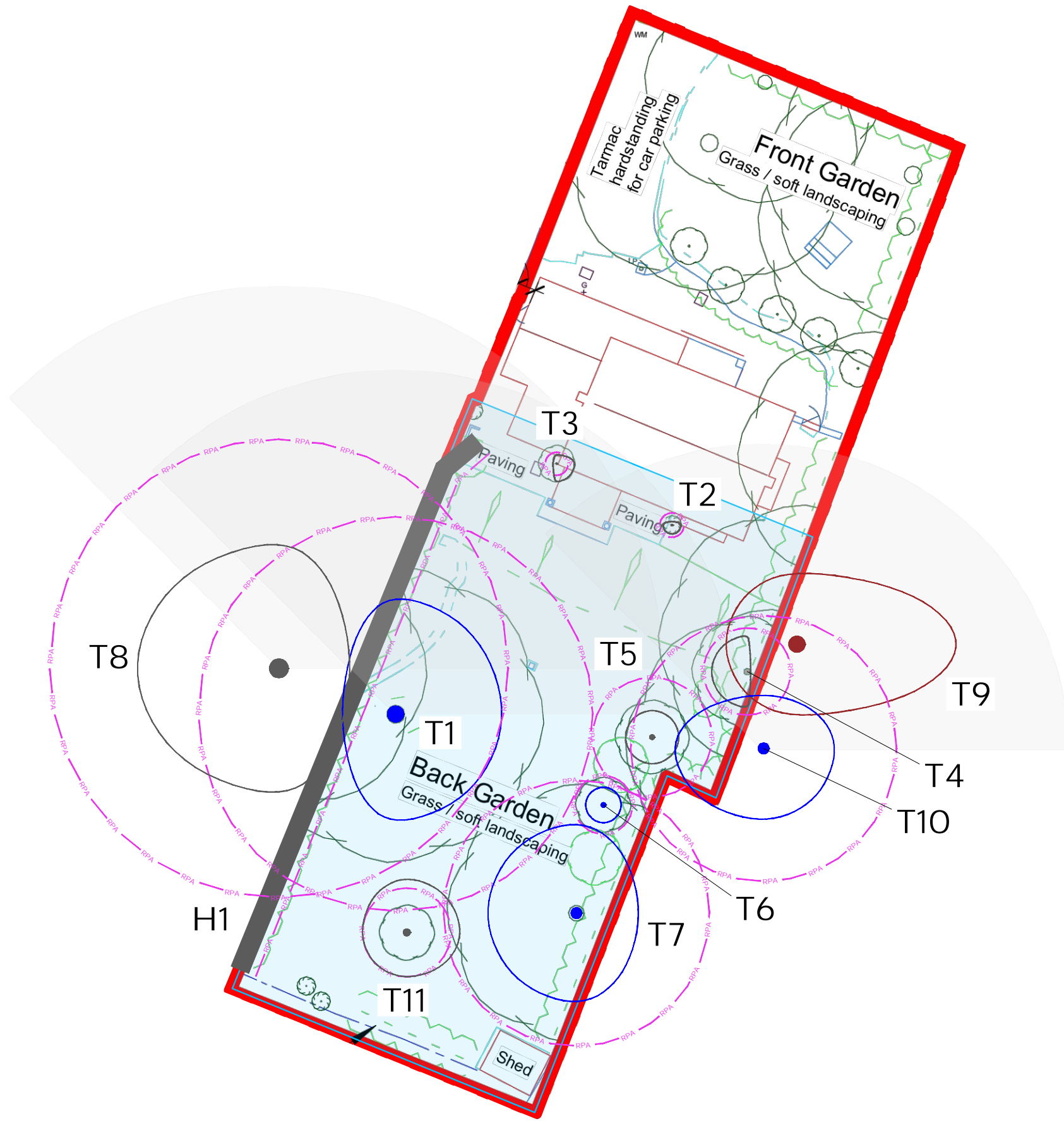


ARBORICULTURAL PLANS

APPENDIX 3



#WEAREINNOVATORS



DRAWING TITLE.
Tree Constraints Plan

CLIENT.
David Houlitby

DRAWN BY. CTT
DRAWN.

DRAWING NO.
250908 ARBI 1126 TCP V1

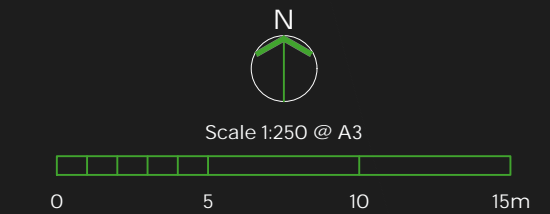
PROJECT NAME.
The Beeches, Halifax Road, Thurgoland

APPROVED BY. CTT
08.09.2025

REVISION NO.
1

PROJECT NO.
1126

SCALE AND BEARING.



BS5837:2012 CATEGORIES

In accordance with Table 1- Cascade chart for tree quality assessment

- Category B (Moderate Quality)
- Category C (Low Quality)
- Category U (Unsuitable for Retention)

SITE FEATURES AND EXISTING CONSTRAINTS

- Red Line Boundary
- Arboricultural Study Area

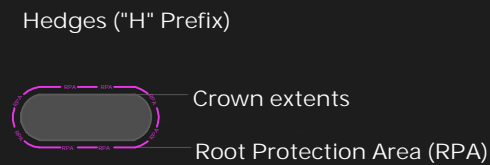
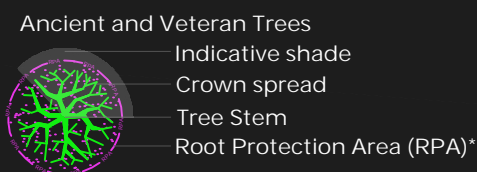
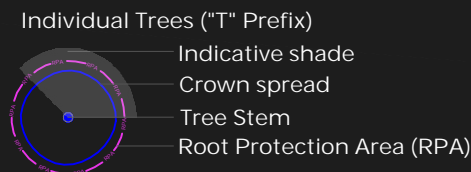
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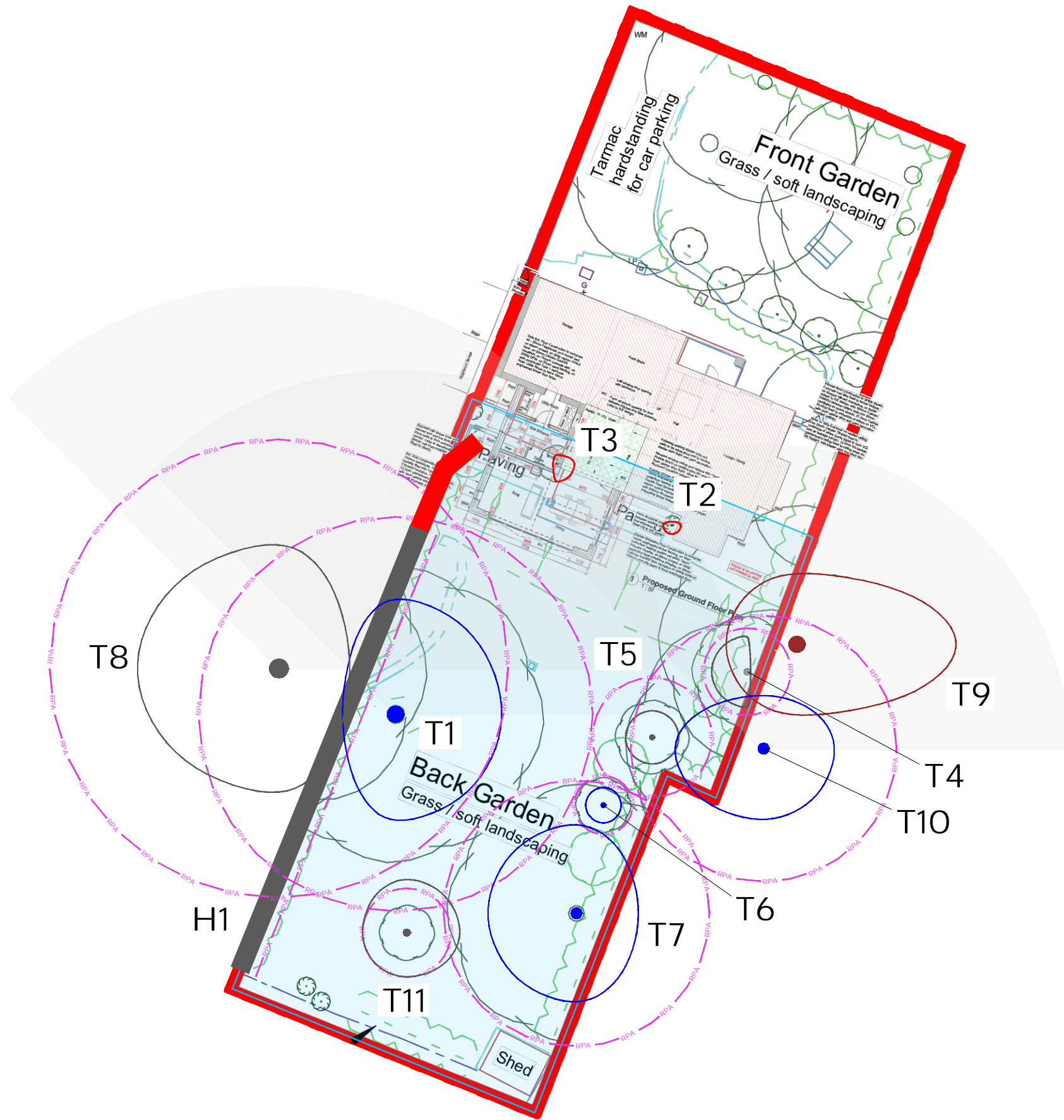
This TCP is created as a design tool and does not make an assessment of the impacts or subsequent effects of the Proposed Development to trees. Therefore, the TCP must not be submitted solely to inform the planning application. This drawing should be viewed in conjunction with the accompanying BS5837:2012 Tree Survey Schedule.

All dimensions should be checked on site. No dimensions are to be scaled from this drawing. This drawing was produced in colour - a monochrome copy should not be relied upon. This drawing was produced digitally using a combination of GIS, GPS, No. Topographical base mapping (dwg) was provided. Arb Innovators Ltd cannot be held responsible for inaccuracies in the base drawing in which this plan is based.
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ARBORICULTURAL FEATURES.

*Crown colour in accordance with BS5837:2012 Category. *In accordance with Ancient and other Veteran Trees: Further Guidance on Management.*





DRAWING TITLE.
Tree Retention Removals Plan

CLIENT.
David Houlitby

DRAWING NO.
250908 ARBI 1126 TRRP-V1

PROJECT NAME.
The Beeches, Halifax Road, Thurgoland

REVISION NO.
1

PROJECT NO.
1126

NOTES.

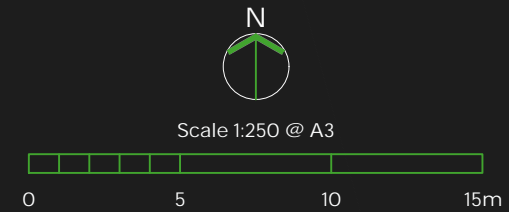
This Tree Retention and Removals Plan (TRRP) is created as a design tool and makes an assessment of the impacts or subsequent effects of the Proposed Development to trees. This drawing should be viewed in conjunction with the accompanying BS5837:2012 Tree Survey Schedule and Arboricultural Impact Assessment (AIA) prepared by Arb Innovators Ltd.

All dimensions should be checked on site. No dimensions are to be scaled from this drawing. This drawing was produced in colour - a monochrome copy should not be relied upon. This drawing was produced digitally using a combination of GIS, GPS and Topographical base mapping (dwg) where provided. Arb Innovators Ltd cannot be held responsible for inaccuracies in the base drawing in which this plan is based.
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DRAWN BY. CTT
DRAWN.

APPROVED BY. CTT
08.09.2025

SCALE AND BEARING.



BS5837:2012 CATEGORIES

In accordance with Table 1 - Cascade chart for tree quality assessment

- Category B (Moderate Quality)
- Category C (Low Quality)
- Category U (Unsuitable for Retention)

SITE FEATURES AND EXISTING CONSTRAINTS

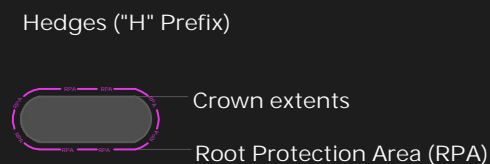
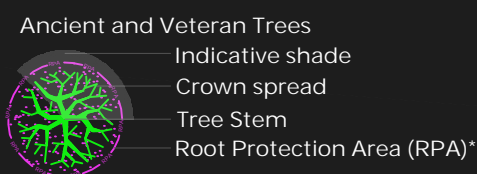
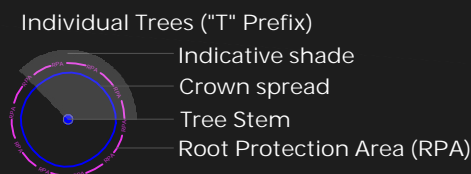
- Red Line Boundary
- Arboricultural Study Area

ARBORICULTURAL IMPACTS

- Features to be Removed
- New RPA Incursions

ARBORICULTURAL FEATURES.

Crown colour in accordance with BS5837:2012 Category. *In accordance with Ancient and other Veteran Trees: Further Guidance on Management.





CAVEATS, LIMITATIONS AND REFERENCES

APPENDIX 4



#WEAREINNOVATORS

Caveats and Limitations

The contents of this report are valid for a period of one year (**24 months**) from the date cited.

Trees are growing dynamic structures. Whilst reasonable effort has been made to identify tree-risk features (defects) within the trees inspected, no guarantee can be given as to the absolute safety or otherwise of any individual tree. No tree is ever safe due to the unpredictable laws and forces of nature. As a result of this, natural failure of intact trees will occur; extreme climatic conditions can cause damage to even apparently healthy trees.

Arb Innovators have provided this report solely for the use of the recipient and accepts no liability to any third parties or any other party using or reviewing the report or any part thereof. Arb Innovators makes no warranties or guarantees, actual or implied, in relation to this report, or the ultimate commercial, technical, economic, or financial effect on the project to which it relates, and bears no responsibility or liability related to its use other than as set out within the scope of the contract under which it was supplied.

This is a report which should be used to accompany a planning application and provides no detail specifically in relation to the condition or quantification of risk posed by trees. This report in no way constitutes a tree risk-benefit survey nor should it be used exclusively to assign remedial management to trees.

This inspection was undertaken from ground level and in accordance with stage one VTA, involving the use of non-invasive methods to identify tree health issues and structural defects by visual observation. Should a more detailed inspection be required then this will be highlighted in the recommendations. This may involve the use of decay detection tools or aerial inspection (stage two VTA) and interpretation of findings to form a prognosis (stage three VTA).

The survey has only been undertaken from land within the Client's ownership, from public land or from areas where formal access has been arranged. Where trees have been captured beyond the Site boundary, all dimensions of trees and their associated parts are based on estimation unless otherwise stated.

This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering, or soil. Trees and woody vegetation were not assessed for their potential impact upon future construction issues such as foundation designs (NHBC. 'Chapter 4.2- Building Near Trees'. NHBC Standards 2016. 2016).

Further, this report does not rely on ecological or archaeological data. If either is commented upon within the report further professional advice should be sought.

Technical References

This Arboricultural Assessment was prepared in accordance with or following the guidance contained within the following technical references:

- Town and Country Planning Act 1980
- National Planning Policy Framework (NPPF), 2023
- British Standards Institute. BS 5837 (2012) *Trees in relation to design, demolition and construction - Recommendations*, London: BSI.
- British Standards Institute. BS 3998:2010 *Tree Works - Recommendations*, London: BSI.
- British Standards Institute. BS 8545 (2014) *Trees: from nursery to independence in the landscape - Recommendations*, BSI
- Royal Institute of British Architects, RIBA Plan of Work 2020 Overview, RIBA (2020).
- Fay, N., Dowson, D., Helliwell, R. (2005) *Tree Surveys: A Guide to Good Practice*, The Arboricultural Association
- Mattheck, C. (2007) *Updated Field Guide for Visual Tree Assessment*
- Mattheck, C & Breloer, H (2006) *The Body Language of Trees: A Handbook for Failure Analysis. Research for Amenity Trees No. 4.* DETR
- Weber, K., Mattheck, C. (2003) *Manual of Wood Decays in Trees*, The Arboricultural Association
- R.G. Strouts & T. G. Winter, *Diagnosis of Ill- Health in Trees* (7th Impression, TSO - 2013)
- Forestry Commission and Natural England, *Ancient woodland, ancient trees, and veteran trees: protecting them from development* (2018).
- Tree Council & Ancient Tree Forum *Ancient Tree Forum*, Lonsdale, D (ed.) (2013) *Ancient and other Veteran Trees: Further Guidance on Management.*
- Woodland Trust (n.d.) (2024) *Recognising and categorising ancient and other veteran trees.*
- National Joint Utilities Group (2007) *Volume 4, Issue 2: Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*