ST ALBANS SCHOOL

Hallam Land

PART OF HENRY BOOT

WOOLLAM PARK

North St Albans

ARBORICULTURAL IMPACT ASSESSMENT

DECEMBER 2024

Hallam Land Management Limited, St Albans School and

St Albans School Woollam Trust

Woollam Park North St Albans

Sports Pitch Relocation

Arboricultural Assessment

December 2024

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1.0 INTRODUCTION

1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Hallam Land Management Limited, St Albans School and St Albans School Woollam Trust to present the findings of an Arboricultural Assessment and survey of trees located at Land North of St Albans (hereafter referred to as the site), OS Grid Ref TL 152 101.

Site Description

1.2 The site is situated to the north of St Albans comprising of an arable field parcel.

1.3 Existing sports pitches are situated on land to the west of the application site with land to the north and east being of agricultural usage. Field parcels to the south form part of an outline application for a residential development.

1.4 Tree cover associated with the site is predominantly confined to a tree belt on the southern boundary.

Scope of Assessment

1.5 A tree survey and assessment of existing trees was carried out by FPCR Environment and Design on the 17th of November 2023 in accordance with guidance contained within British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' (hereafter referred to as BS5837).

1.6 This report has been produced to accompany a full planning application for residential led mixed use development.

1.7 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 2023

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 2023.

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 53), 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 53: unless, in specific cases, there are clear, justifiable and compelling reasons why this would be inappropriate)

- 186 (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 67) and a suitable compensation strategy exists'.

and provides specific guidance that:

- 186 (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 186 (c), examples of what is deemed to be 'wholly exceptional' are included within Footnote 67 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'.

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

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

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) ï (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:

- 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) ï (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:

- Sub category (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.
- Sub category (ii) trees, groups or woodlands of particular visual importance as arboricultural and / or landscape features.
- Sub category (iii) trees, groups or woodlands of significant conservation, historical, commemorative or other value for example veteran or wood pasture.

3.9 **Category (B) ï (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:

- Sub category (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.
- Sub category (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.
- Sub category (iii) trees with material conservation or other cultural value.

3.10 **Category (C) ï (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:

- Sub category (i) unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
- Sub category (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.
- Sub category (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 assessment and the criterion for defining a veteran tree is 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 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 tree 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."

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

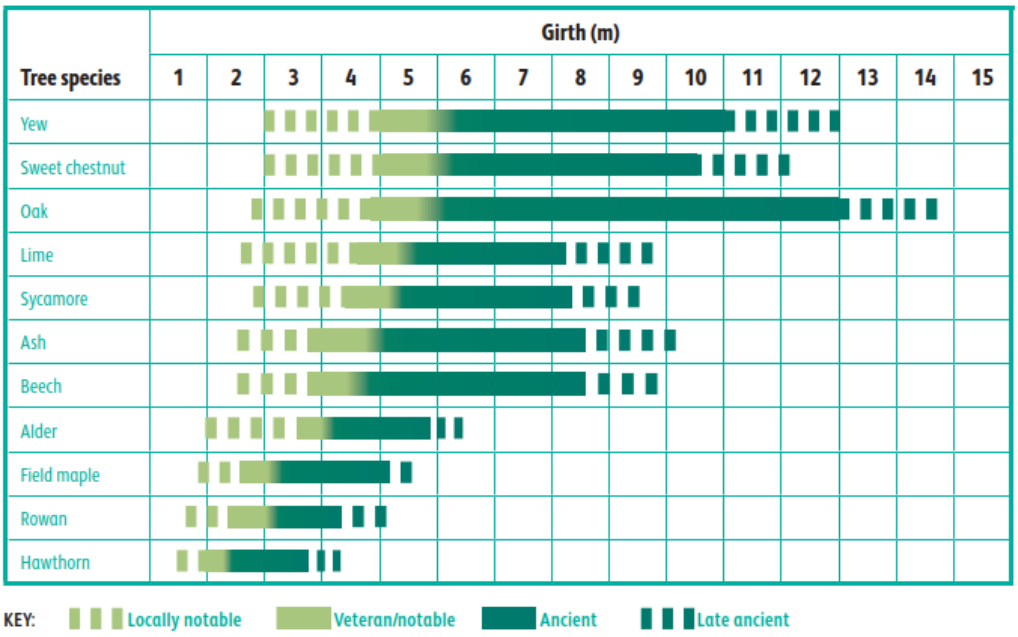


Figure 1: The chart of girth in relation to age and development classification of trees, as shown in Lonsdale (2013)[4].

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) 2023, which includes its own definition of ancient and veteran trees:

'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]

Considerations and Limitations of the Tree Survey

3.16 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.

3.17 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.

3.18 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.

[4] Lonsdale, D. (Ed.). 2013). Ancient and other veteran trees: further guidance on management. London: The Tree Council.
[5] Ministry of Housing, Communities and Local Government. (2019). *National Planning Policy Framework.* London: Ministry of Housing, Communities and Local Government.

3.19 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.

4.0 RESULTS

4.1 A total of four individual trees, five groups of trees and three hedgerows were surveyed as part of the Arboricultural Assessment. Trees were surveyed as individual trees, groups and hedgerows as per the survey methodology.

4.2 Appendix A presents details of all individual trees, groups and hedgerows 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 and hedgerows 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 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		0		0
Category A (High Quality / Value)	T3, T4	2	G5,	2
Category B (Moderate Quality / Value		0	G1, G3, G4, H3	4
Category C (Low Quality / Value)	T1, T2	2	G2, H1, H2	3

4.6 Two individual trees and one group were recorded as high value and retention Category A. T3 and T4 were both mature ash *Fraxinus excelsior* specimens and found to be good overall condition, with features typical of their age class resulting from natural abscission of material creating branch stubs, broken branches, branch socket cavities and bark wounds. Dead branches were also regularly observed in various proportions.

4.7 G5 a high-quality tree group in terms of its value to the landscape and arboricultural quality contained specimens of ash, English oak *Quercus robur* and common larch *Larix decidua,* recorded as retention Category A. Due to the close proximity to each other, the majority of these trees have formed conjoining crowns which would limit the possibility of removing some specimens without impact upon others.

4.8 Two planted tree groups formed the southern boundary of the site, G1 and G2. These contained a native planting mix with G1 regarded as being of higher overall quality and graded retention Category B. G2 had been left largely unmanaged with dead trees and dense brambles prolific throughout the group, due to this it was being of limited quality and retention Category C.

4.9 Hedgerows on the site were of native species and managed to a height of between two to five metres.

4.10 G3 and G4 were situated beyond the application boundary but included in the site survey for completeness and to assess any potential conflicts.

Ancient and Veteran Trees

4.11 None of the assessed trees were considered as ancient or veteran trees in accordance with our veteran survey methodology.

Statutory Considerations

4.12 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.

4.13 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.

4.14 It is understood having used the online search facility on the website for the Local Planning Authority, St Albans City & District Council, that there are no Tree Preservation Orders and Conservation Areas that would apply to any trees present on, or in close proximity to the assessment site and therefore no statutory constraints would apply to the development in respect of trees. Before any tree works are undertaken confirmation of the online information should be sought from the Local Authority.

4.15 Information provided on Tree Preservation Orders and Conservation Areas is accurate to the date of this assessment and cannot be assumed to remain unchanged. The last check was carried out on the 25th of September 2024.

5.0 ARBORICULTURAL IMPACT ASSESSMENT

5.1 The following paragraphs present a summary of the tree survey and discussion of particular 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 Pitch Layout Plan and seeks to outline the relationship between the proposals and the existing trees and hedgerows. The drawing shows the proposals for the development of sports pitches and parking area.

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

Table 2: Summary of Impact on Tree Stock

	Trees to be Removed	Reasons for Removal	Total
Category U - Unsuitable			0
Category A (High Quality / Value)			0
Category B (Moderate Quality / Value			0
Category C (Low Quality / Value)	T1, T2	Removed to facilitate parking area	2

5.5 The proposed development will see the majority of trees retained and incorporated into the proposals. Where trees are shown for removal, these are of low quality and can be mitigated for through new tree planting across the site.

5.6 T1 and T2, both Category C coppiced goat willow were low quality trees, the loss of these should not pose a constraint to the development and are shown to be mitigated for by boundary planting along the northern and eastern boundaries.

6.0 NEW TREE AND HEDGEROW PLANTING

6.1 A detailed landscaping scheme, including an advanced planting specification, is being provided as part of the application. This scheme outlines the types of plants, trees, and shrubs to be introduced, along with their placement and size at planting. The advanced planting specification aims to ensure the establishment of vegetation, enhancing the site's visual appeal and promoting biodiversity from the outset. The landscaping plan also considers the long-term growth and sustainability of the planted areas, contributing to the overall environmental quality of the development.

6.2 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.

6.3 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.

6.4 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.

6.5 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 on the basis of 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).

6.6 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.

6.7 Through careful species selection, the landscape scheme shall reduce the risk of trees being removed in the future on the grounds of nuisance. Nuisance can be perceived in a number of ways and vary from person to person however most commonly, within the context of trees, low overhanging branches, excessive shading, seasonal leaf fall and the misinformed perception that trees close to buildings cause damage.

6.8 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. Consequently, 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.

Rooting Environment and Soil Volumes

6.9 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. Healthy mature trees integrate well into the built environment; increase the maturity of the landscape; help provide a natural green and leafy urban environment in which people would want to reside whilst also benefiting local wildlife.

6.10 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

6.11 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.

6.12 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 details 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.

7.6 Construction access may take place within the root protection area if suitable ground protection measures are in place. This may comprise single scaffold boards over a compressible layer laid onto a geo-textile membrane for pedestrian movements. Vehicular movements over the root protection area will require the calculation of expected loading and the use of proprietary protection systems.

Tree Protection Barriers

7.7 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.

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

7.9 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

7.10 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.

7.11 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.

7.12 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.

7.13 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.

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

7.15 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 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.

8.2 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 (The Health and Safety at Work Act 1974).

8.3 To ensure that risks are reduced as far as is 'reasonably practicable' it will be necessary that, a review of the relationship between retained trees and the new development should be undertaken by a qualified arboriculturist to assess the retained tree cover and prepare a schedule of tree works.

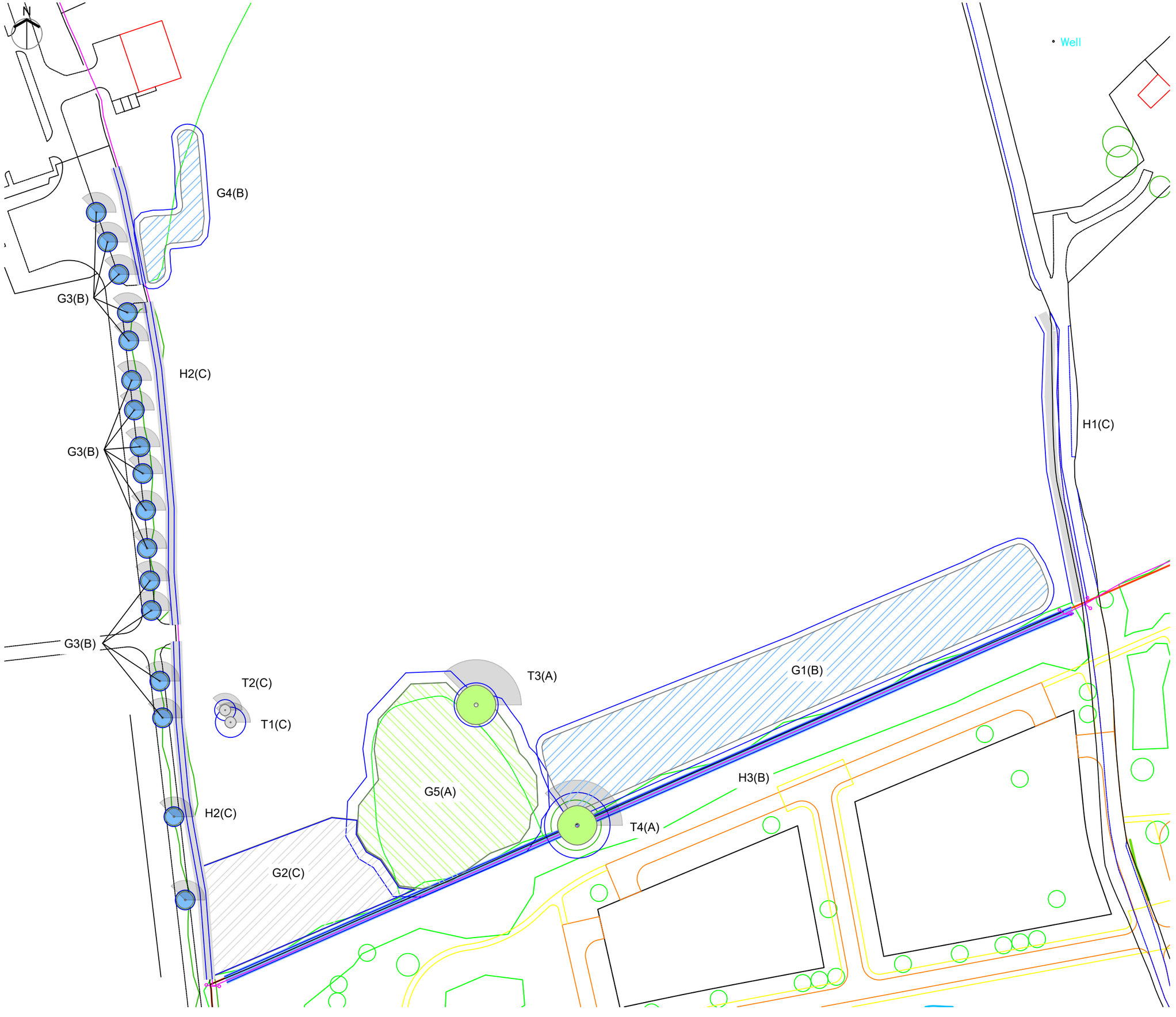
8.4 The Occupiers Liability Act (1957 and 1984) also places a ‘duty of care’ to ensure that no reasonably foreseeable harm takes place due to tree defects. That duty of care should be reasonable, proportionate, and reasonably practicable when managing the risk[6].

8.5 It is currently expected that a suitably qualified Arboriculturalist 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.

8.6 All tree works undertaken should comply with British Standard 3998:2010 and should therefore be carried out by skilled tree surgeons. It would be recommended that quotations for such work be obtained from Arboricultural Association Approved Contractors as this is the recognised authority for certification of tree work contractors.

8.7 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.

[6] The Health and Safety at Work Act 1974



KEY

- Category U - Trees / Groups Unsuitable for Retention (BS 5837:2012)
- Category A - Trees / Groups of High Quality (BS 5837:2012)
- Category B - Trees / Groups of Moderate Quality (BS 5837:2012)
- Category C - Trees / Groups of Low Quality (BS 5837:2012)
- Hedgerow (Colour indicates BS5837:2012 Category)
- Root Protection Area (The RPA has been altered where appropriate to reflect underground constraints)
- T1 (A) G1 (A) — Individual / Group Number and BS5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

Scale 1:1250 @ A3

0 25 50 75m

NOTES

All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with project Arboriculturalist. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.

Drawing has been produced in colour and is based on digital information in .dwg format, aerial images and/or GPS location where appropriate. A monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.

Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the project Arboriculturalist should works commence 12 months after the date of this survey.

SOME TREES MAY BE SUBJECT TO STATUTORY CONSTRAINTS. IT IS THEREFORE ADVISED THAT NO WORKS SHOULD BE UNDERTAKEN TO ANY TREES ILLUSTRATED HEREIN WITHOUT FIRST OBTAINING THE RELEVANT AUTHORISATION TO DO SO UNLESS AGREED AS PER THE APPROVED PLANS THROUGH PLANNING CONSENT.

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-	06.12.2023	First Issue	RG

masterplanning
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client
Hallam Land Management

project
Sports Pitch Relocation
North St. Albans

drawing title
TREE SURVEY PLAN

scale	drawn/checked	date
1:1250 @ A3	RG / NAC	December 2023

drawing number
8575-T-12

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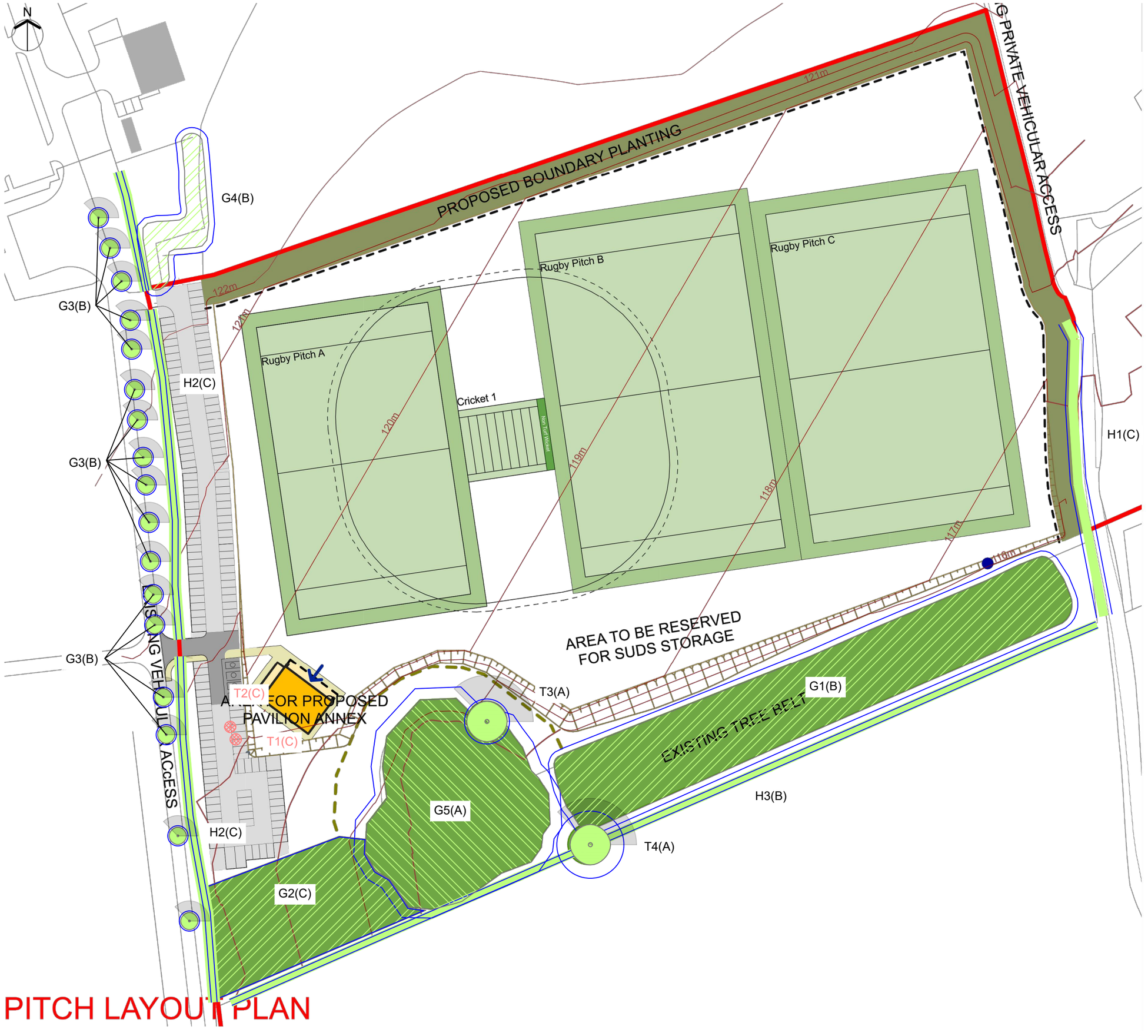
CAD file: K:\8500\8575\ARB\Sports Pitches\Plans\8575-T-12 Tree Survey Plan.dwg



KEY

- Tree/Group to be Retained
- Tree/Group proposed to be removed subject to relevant permissions
- Hedgerow Proposed to be Retained and Incorporated into the New Development
- Root Protection Area (Shown for retained trees only)
- T1 (A) G1 (A) — Individual / Group Number and BS Category
- T1 (A) G1 (A) — Individual / Group Number to be Removed and BS 5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

Scale 1:1250 @ A3

0 25 50 75m

NOTES

All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with project Arboriculturalist. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.

Drawing has been produced in colour and is based on digital information in .dwg format, aerial images and/or GPS location where appropriate. A monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.

Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the project Arboriculturalist should works commence 12 months after the date of this survey.

SOME TREES MAY BE SUBJECT TO STATUTORY CONSTRAINTS. IT IS THEREFORE ADVISED THAT NO WORKS SHOULD BE UNDERTAKEN TO ANY TREES ILLUSTRATED HEREIN WITHOUT FIRST OBTAINING THE RELEVANT AUTHORISATION TO DO SO UNLESS AGREED AS PER THE APPROVED PLANS THROUGH PLANNING CONSENT.

rev	date	description	by
-	18.10.24	First Issue	RG

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client
Hallam Land Management

project
Sports Pitch Relocation
North St. Albans

drawing title
TREE RETENTION PLAN

scale	drawn/checked	date
1:1250 @ A3	RG / HR	October 2024

drawing number
8575-T-13

rev
-

CAD file: K:\8500\8575\ARB\Sports Pitches\Plans\Tree Retention Plan.dwg

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	

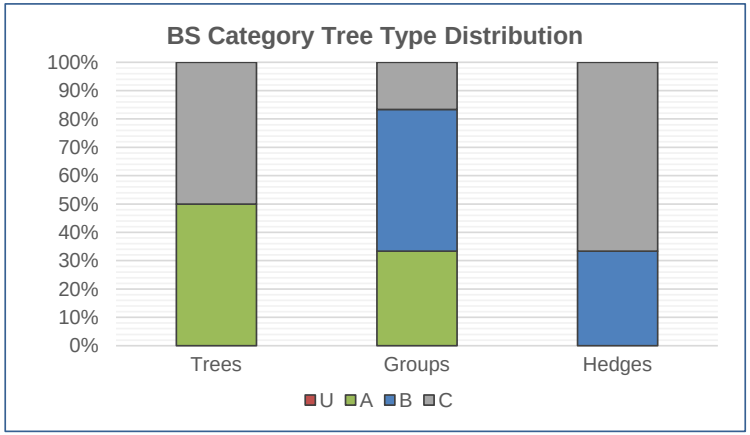
Structural Condition	Physiological Condition	Root Protection Area (RPA)
Good - No significant structural defects	**Good -** No significant health problems	• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described 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	

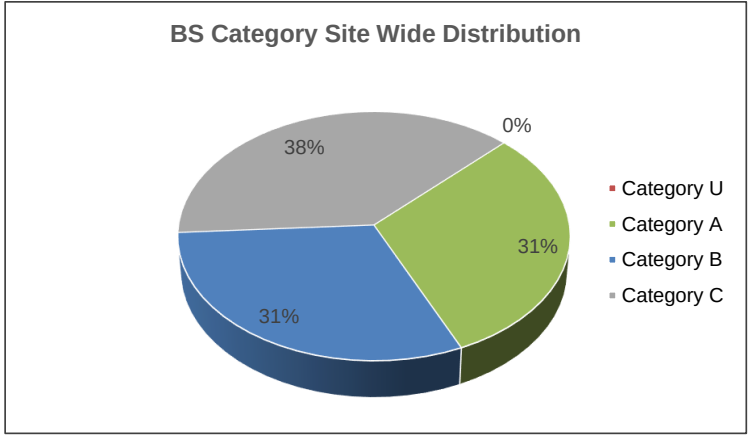
Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U		0		0
Category A	T3, T4	2	G5,	2
Category B		0	G1, G3, G4, H3	4
Category C	T1, T2	2	G2, H1, H2	3
	Total	4	**Total**	9

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.



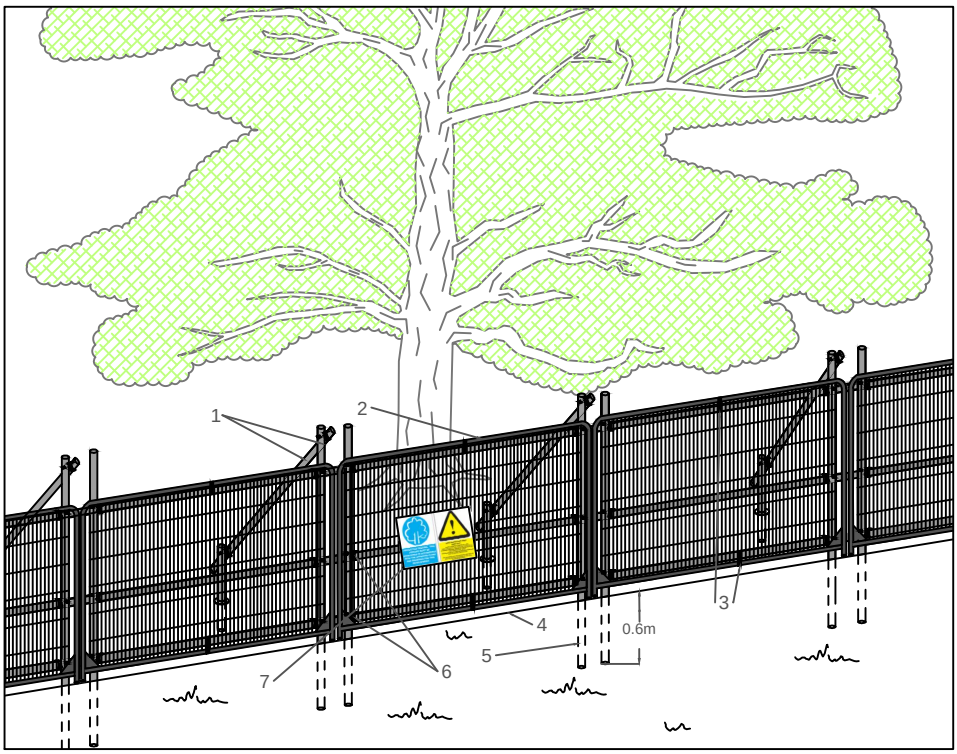


Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
INDIVIDUAL TREES										
T1	Goat Willow Salix caprea	7	est 20x 100	2	EM	F	Coppiced form	90	5.4	C (i)
T2	Goat Willow Salix caprea	6	est 15x 80	2	EM	F	Coppiced form	43	3.7	C (i)
T3	Ash Fraxinus excelsior	16	est 650	7	M	G	Growing on edge of Cat A group. Appears in good health and displaying good form. Major deadwood in ash in group. Possible ADD but too late in year to assess fully. Scots pine also in group	191	7.8	A (i)
T4	English Oak Quercus robur	16	est 970	7	M	G	T15 in main site survey. 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) Multi leadered form	426	11.6	A (i)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Hazel Corylus avellana Sweet Chestnut Castanea sativa Field Maple Acer campestre English Oak Quercus robur	5	est 200	2	SM	F	Coppiced form Hazel coppice with oak sweet chestnut and field maple standards. Planned planting growing well with some minor management needed - removal of old tree guards.	18	2.4	B (ii)
G2	English Oak Quercus robur Field Maple Acer campestre Hawthorn Crataegus monogyna Apple Malus domestica Ash Fraxinus excelsior Hazel Corylus avellana	6	est 150	2	SM	F	Groups appears largely unmaintained with dead trees and prolific bramble present. Dog rose also recorded.	10	1.8	C (ii)
G3	English Oak Quercus robur	7	est 290	3	SM	F	Excellent linear group of oak between existing access road and arable field. Hesitant to mark as Cat A as unlikely they will all make it to long term maturity due to being closely planted	38	3.5	B (ii),A (ii)
G4	English Oak Quercus robur Ash Fraxinus excelsior Wild Cherry Prunus avium Field Maple Acer campestre	10	est 300	3	SM	F / G	Diverse group with ash oak and field maple standards and hazel and hawthorn under storey. Could be improved with management - removal of tree guards thinning etc. but growing well in current condition.	41	3.6	B (ii)

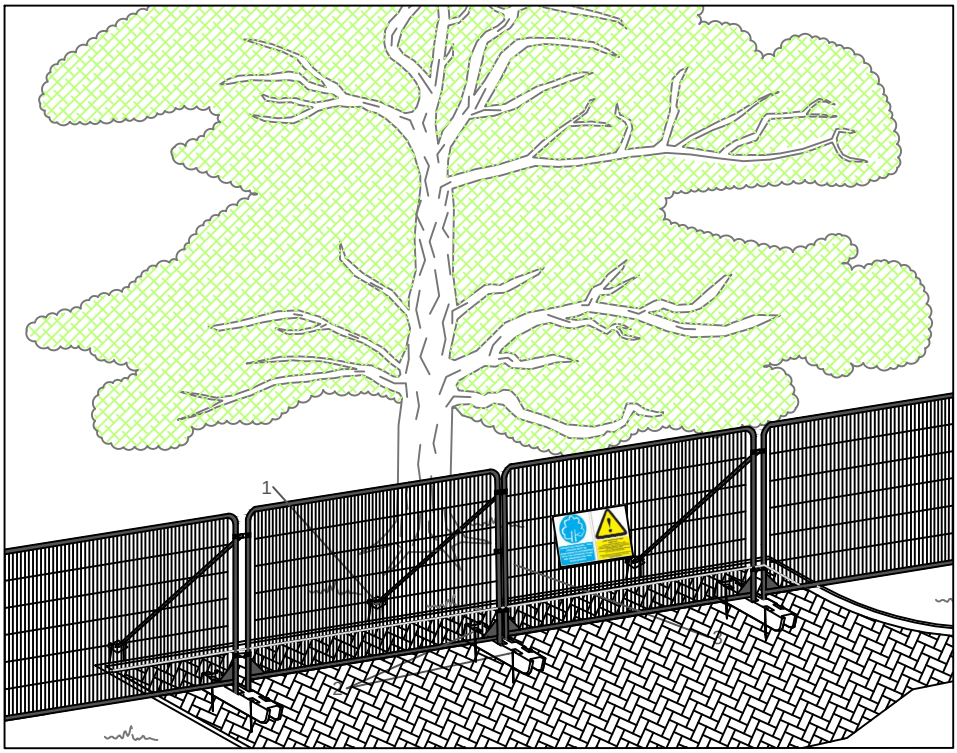
Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G5	Ash Fraxinus excelsior English Oak Quercus robur Common Larch Larix decidua	20	est 650	5	EM	G	G8 in main site survey. Characteristic for species Rooted around a bowl landform which could be an old pond. Steep banks to bowl unable to gain access. Interlocking crowns	191	7.8	A (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 Hazel Corylus avellana Blackthorn Prunus spinosa Field Maple Acer campestre	2	est 75	1	EM	F	Maintained hedgerow Boundary hedge adjacent to road. Threshed recently.	3	0.9	C (ii)
H2	Blackthorn Prunus spinosa Hawthorn Crataegus monogyna Holly Ilex aquifolium Field Maple Acer campestre Hazel Corylus avellana	5	est 80	2	EM / SM	F	Boundary lapses hedge adjacent to existing access road. Managed to approximately 2.5m top left long.	3	1.0	C (ii)
H3	Blackthorn Prunus spinosa Elder Sambucus nigra Field Maple Acer campestre Hawthorn Crataegus monogyna Sycamore Acer pseudoplatanus Wild Cherry Prunus avium	4	10x 30	1.5	M	G	H9 in main site survey. Maintained hedgerow Multi stemmed from base	4	1.1	B (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

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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