## BS 5837:2012 Arboricultural Impact Assessment

#### 25<sup>th</sup> September 2024

Report No. 2026\_AIA.01 Project: Barnacre Road Primary School Authored by: Matthew Lally







#### ARBORICULTURAL IMPACT ASSESSMENT

#### PROJECT

Barnacre Road Primary School Barnacre Road Longridge Preston PR3 2PD

#### DOCUMENT ISSUE RECORD

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18.09.2024	Russell Pearce BSc (Hons)	01	25.09.2024	Matthew Lally. FdSc MArborA



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#### EXECUTIVE SUMMARY

The proposed development site is located in a residential suburb of Longridge in the Borough of Ribble Valley. The site currently consists of a primary school with a hardstanding playground to the north and east and playing fields further north.

Trees present that could be potentially affected by the development are as follows:

Category A	Category B	Category C	Category U
		22 Trees	
0	19 Trees	6 Groups	3 Trees
		4 Hedges	

It is proposed to construct a new security fence around the school property. The trees requiring pruning or removal are as follows:

	Tree Category. Trees Requiring Works				
Tree Work Type	Category A	Category B	Category C	Category U	
Tree Removal	0	0	0	0	
Pruning Works	0	3 Trees	2 Groups	0	

An Arboricultural Method Statement (Ref: 2026\_AMS.01) has been produced to accompany this Arboricultural Impact Assessment.



### 1. INTRODUCTION

#### 1.1. Author Information

- 1.1.1. My name is Matthew Lally and I have been working with trees since 2005. I have experience in both practical elements of arboriculture and in consulting. I so far hold the following Arboricultural qualifications and technical memberships:
  - FdSc Arboriculture
  - LANTRA Professional Tree Inspection Certificate
  - VALID Validator
  - QTRA Registered User
  - Professional Member of the Consulting Arborist Society
  - Professional member of the Arboricultural Association
  - Associate Member of the Institute of Chartered Foresters.
- 1.1.2. I am the author of this report and as a Professional Member of the Arboricultural Association, the Consulting Arborist Society and an Associate Member of the Institute of Chartered Foresters, I am required to uphold ethical standards laid out by these institutions and therefore I have written this report in good faith and as objectively as possible.

#### 1.2. Surveyor Information

- 1.2.1. The survey was undertaken by Russell Pearce who has been working and studying in the Arboricultural Industry since 2011. He has many years' practical and consulting experience as a Local and County Authority arboriculturalist and more recently as a private sector practitioner.
- 1.2.2. Russell holds a BSc in Arboriculture and a Professional Tree Inspection qualification. He attends numerous conferences and seminars keeping up to date with latest research and best practices.

#### 1.3. Scope and Purpose of the Reports

1.3.1. An Arboricultural Impact Assessment is used to detail reasonably foreseeable conflicts that a development may have with regards to trees on a given site and is intended to assist the Local Planning Authority (LPA), in this case Ribble Valley Borough Council, in their assessment of the proposed development. I therefore recommend that this report along with the associated Arboricultural Method Statement is supplied to LPA in support of the planning application to which it pertains.



1.3.2. I have aspired in this report to provide an analysis of the impacts that the proposed development is projected to have on trees located within the site based on the information that I have available to me at the time of writing. Where practicable I have included trees on land immediately adjacent to the site that may also be impacted. I also offer guidance on suitable retained tree management and mitigation recommendations for losses or other foreseen issues.

#### 1.4. Instructions & Brief

- 1.4.1. I was commissioned to write this Arboricultural Impact Assessment by Sebastian Whalley of Stratus9 Consulting. I have prepared this Arboricultural Impact Assessment in relation to the proposed development at Barnacre Road Primary School, Barnacre Road, Longridge, Preston, PR3 2PD.
- 1.4.2. Table 1 provides a summary of documents which have been made available for use in this report.

Document Type	Reference No.	Author	Date
Topographical Survey	10663_Trees_Draft	NTB Survey Solution	Sept 2024
Site Plan 10638-P-01		Stratus9 Consulting	22/05/2024

Table 1 Documents made available by client.

1.4.3. I attach below an outline overhead photograph of the area that was assessed on the 18/09/2024. (This is not necessarily the site boundary but includes trees that I deem could be impacted by the development regardless of ownership)





Figure 1. Assessment boundary plan.



## 2. SITE VISIT & SURVEY METHODOLOGY

#### 2.1. Survey Details

- 2.1.1. The arboriculturalist visited the site and surveyed the trees in accordance with Chapter 4 of BS5837:2012. All the recommended tree metrics have been recorded in the tree schedule which can be found in appendix I.
- 2.1.2. British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' includes guidance for considering the relationship between existing trees and how to integrate their needs into a successful development. A harmonious and sustainable relationship between any retained trees and new structure and/or hard surfaces is at the heart of the guidance.
- 2.1.3. When recording the trees as individual trees, groups of trees, woodlands or hedge groups I have included a prefix on the tree number. Explained as follows: Individual trees (T), groups of trees (G), hedgerows (H) or woodland groups (W).
- 2.1.4. I have used the term 'group' where trees form cohesive arboricultural features either aerodynamically, visually or culturally.
- 2.1.5. I have used the term 'hedgerow' for lines of trees or shrubs less than 5m wide at the base and which are managed or have been managed under an obvious regular pruning regime.
- 2.1.6. I have used the term 'woodland' where there are at least 10 trees and the individual tree canopies generally overlap and interlink, often forming a more or less continuous canopy and trees are the dominant plant form in this area.
- 2.1.7. The arboriculturalist carried out the survey on Wednesday 18<sup>th</sup> September 2024 by means of inspection from ground level. If the inspection was restricted for any reason such as lack of access or dense climbing plants etc, then this has been noted in the site notes in appendix I. I have included pictures of the significant trees in appendix V.
- 2.1.8. The weather conditions during the survey were dry and still meaning that the quality of the inspection was not adversely affected.



- 2.1.9. In some cases, it may be decided to group trees that share very similar characteristics. This method is in line with point 4.2.4 of BS 5837:2012 and I quote 'Trees forming groups should be identified and considered as groups where the arboriculturist determines that this is appropriate. It may be appropriate to assess the quality and value of trees as a whole, rather than individuals.'
- 2.1.10. All the trees were assessed using: a grading A to C (A being of high quality and C being of the lowest quality) and 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). I attach in appendix III the British Standard 5837:2012 cascade chart for further details.
- 2.1.11. Where appropriate the canopy spread for each tree has been recorded at four cardinal points in order to reproduce an accurate representation of the crown shape of the tree, this was generally not possible for tree groups, woodlands and hedges and therefore these were averaged and are represented by simplified representations on the plans. These representations can be seen in the plans that I have attached in appendix IV.
- 2.1.12. Assessing the potential influence of trees upon load bearing soils and the potential impact to existing and proposed structures was not included in the contract brief and I have therefore not considered this in the report. I cannot be held responsible for damage arising from such action. I recommend that you consult the relevant professional with regards to soil and structures before planning any development.

During the site visits I have inspected the trees in line with the British Standard recommendations for potentially hazardous trees and I have made appropriate recommendations where required. I note, however, that this report is not a substitute for a full tree risk assessment or management plan which are specifically designed to minimise risk and liability associated with responsibility for trees.

#### 2.2. Creation of the Tree Constraints Plan

2.2.1. British Standard 5837:2012 recommends the assessment of trees is made as objectively as possible, but I note that although I do my utmost to be as objective as possible, the findings and recommendations in this report will always be my opinion. The tree categorisation method identified in the British Standard is a tool I use on every Preliminary and Arboricultural Impact



Assessment as this guidance helps to make an objective judgment of the tree quality and value of the existing tree stock and keep the judgment as consistent and fair as possible.

- 2.2.2. The Tree Constraints Plan was created using computer aided design software and the topographical survey. The plan shows the tree crowns, tree stems and the root protection areas in relation to the surrounding buildings and other site features.
- 2.2.3. I note that the topographical survey did include tree positions, however, a very small number of trees were not located on the plan for various reason. I have plotted the trees not represented on the plans using overhead photography and marked any tree plotted like this with the suffix "#". I note therefore that the positions plotted on the plan by myself are estimated and therefore any dimensions should be checked on site. I do not accept any liability for inaccurately plotted trees.
- 2.2.4. The Root Protection Area is the minimum amount of root and soil around the tree that we need to retain unmolested if we want to retain these trees successfully. The Root Protection Area or RPA is calculated by a function of the size of the main stem (12x the stem diameter at 1.5m from ground level gives the radius of the RPA's circle).
- 2.2.5. I have shown the Root Protection Area (RPA) on the plans in appendix IV for each individual tree as a circle centred on the base of the stem which is based on the recommendation of the British Standard.



## 3. PLANNING POLICY

#### 3.1. National Planning Policy Framework (NPPF)

- 3.1.1. It is my understanding that when determining planning applications, Local Planning Authority's (LPA) should apply the following principles:
  - If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternate site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.
  - Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons, and a suitable compensation strategy exists.
  - Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity. (paragraph 186)
- 3.1.2. Consideration should also be taken of paragraph 136 of the NPPF which states:

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 treelined50, 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. (Paragraph 136)

#### 3.2. Local Planning Policy

3.2.1. The NPPF sets out Government planning policies for England and how they should be applied. The Local Planning Authorities each use this information to guide Local Planning Policies which are used as the basis for determining planning applications. The local authority in this case, Ribble Valley Borough Council, refers to the following policies/guidance/plan when considering the trees and development:



#### 3.2.2. <u>Ribble Valley Borough Council Planning Policies</u>

Core Strategy 2008 – 2028 A Local Plan for Ribble Valley Adoption Version Section 10 Development Management Policies (pg.92) POLICY DME1: Protecting Trees and Woodlands There will be a presumption against the clearance of broad-leaved woodland for development proposes. The council will seek to ensure that woodland management safe guards the structural integrity and visual amenity value of woodland, enhances biodiversity and provides environmental health benefits for the residents of the borough. The council encourages successional tree planting to ensure tree cover is maintained into the future. Where applications are likely to have a substantial effect on tree cover, the borough council will require detailed arboricultural survey information and tree constraint plans including appropriate plans and particulars. These will include the position of every tree on site that could be influenced by the proposed development and any tree on neighbouring land that is also likely to be with in influencing distance and could also include other relevant information such as stem diameter and crown spread. The borough council will ensure that: 1. The visual, botanical and historical value, together with the useful and safe life expectancy of tree cover, are important factors in determining planning applications. This will include an assessment of the impact of the density of development, lay out of roads, access points and services on any affected trees. 2. That a detailed tree protection plan is submitted with appropriate levels of detail. 3. Site-specific tree protection planning conditions are attached to planning permissions.



## 4. LEGISLATION

#### 4.1. Statutory Considerations

- 4.1.1. The Town and Country Planning Act (1990) (the Act) and associated Regulations empower Local Planning Authorities (LPAs) to protect trees in the interests of amenity by making Tree Preservation Orders (TPOs). The Act also affords protection for trees with a diameter at breast height over 75 mm diameter that stand within the curtilage of a Conservation Area. An application must be made to the LPA in question to carry out works upon or to remove trees that are subject to a TPO, whilst six weeks' notice of intention must be given to carry out works upon or to remove trees within a Conservation Area that are not protected by a TPO.
- 4.1.2. A Tree Preservation Order (TPO) is an order made by a local planning authority to protect specific trees, groups of trees or woodlands in the interests of amenity. A TPO prohibits the:
  - cutting down
  - topping
  - lopping
  - uprooting
  - willful damage
  - willful destruction

of trees without the LPA's written consent. If consent is given, it can be subject to conditions which have to be followed. In the Secretary of State's view, cutting roots is also a prohibited activity and requires the authority's consent. Anyone found guilty of such an offence is liable and in serious cases, may result in prosecution and incur an unlimited fine.

4.1.3. I have not confirmed the presence of any Tree Preservation Orders or Conservation Area designations that may affect the site. I have contacted the LPA but not yet received a response. I will update this report accordingly when I have received the response from the LPA. Please note that before any tree works are undertaken confirmation of the presence of any statutory constraints should be sought from the Local Authority.

#### 4.2. Felling Licence

4.2.1. Tree felling is also restricted under the Forestry Act 1967. Felling licences are Under this act, there is an exemption from the need for a felling licence for "Felling trees immediately required for the purpose of carrying out



development authorised by planning permission (granted under the Town and Country Planning Act 1990) ..."

4.2.2. If full planning permission is granted, then any trees which require felling to implement the approved plans are exempt from this statutory protection. Outline planning permission does not provide an exemption to the regulations that control tree felling in the Forestry Act 1967.

#### 4.3. Protected Species

- 4.3.1. Nesting birds are afforded statutory protection under the Wildlife & Countryside Act (1981) (as amended) and their potential presence should therefore be considered when clipping hedges, removing climbing plants and pruning and removing trees. The breeding period for woodlands runs from March to August inclusive. Hedges provide valuable nesting sites for many birds and clipping should therefore be avoided during March to July. Trees, hedges and ivy should be inspected for nests prior to pruning or removal and any work likely to destroy or disturb active nests should be avoided until the young have fledged.
- 4.3.2. All bat species and their roosts are protected under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and under Schedule 2 of the Conservation of Habitats & Species Regulations 2010 (as amended). In this respect it should be noted that it is possible that unidentified bat habitat features may be located high up in tree crowns and all personnel carrying out tree works at the site should therefore be vigilant and mindful of the possibility that roosting bats may be present in trees with such features. If any bat roosts are subsequently identified, then it is essential that works are halted immediately and that a suitably qualified and experienced ecologist investigates and advises on appropriate action prior to works continuing.
- 4.3.3. In turn, any subsequent works carried out in relation to any protected species must be carried out under guidance from a suitably qualified and experienced ecologist and in strict accordance with the guidance provided in BS42020:2013 Biodiversity Code of Practice for Planning and Development and, with regard to bats, in strict accordance with BS8596:2015 Surveying for Bats in Trees and Woodlands.



## 5. THE SITE, ITS SURROUNDINGS & THE TREE POPULATION

#### 5.1. Site & Surroundings

5.1.1. The site under consideration is located in a residential suburb of Longridge in the Borough of Ribble Valley. The site currently consists of a primary school with a hardstanding playground to the north and east and playing fields further north. It is bordered to the south by Barnacre Road with residential properties and gardens to the west and north, and a care home to the east.

#### 5.2. Tree Population

- 5.2.1. As noted previously, a total of forty-four individual trees, six groups of trees, and four hedges were surveyed for the purpose of this appraisal. They range from young to mature in age, with heights up to approximately 18 metres, maximum diametrical crown spreads up to approximately 19 metres, and stem diameters up to approximately 680 millimetres. Detailed tree dimensions and other pertinent information, such as structural defects and physiological deficiencies, are included in the Tree Schedule in Appendix I.
- 5.2.2. In respect of the survey, it should be noted that tree quality is categorised within the existing context without taking any site development proposals into account.
- 5.2.3. Under the UK's planning system trees are a material consideration in the planning and development process. Nonetheless, only trees of a suitable quality and value should be considered a material constraint to development. In this respect the Tree Schedule includes a column ('Cat. Grade') listing the trees' respective retention values, where they are rated either 'A', 'B', 'C' or 'U', as per BS5837:2012 Table 1 (appendix III). 'A' category trees are those considered to be of 'high quality' and, accordingly, the most suitable for retention, whilst 'B' category trees are those considered to be of 'moderate quality', and 'C' category trees are those considered to be of 'low quality' with a correlated low retention value. In turn, 'U' category trees are those that are considered to be 'unsuitable for retention'.
- 5.2.4. As detailed in the Tree Schedule in appendix I, nineteen trees were categorised as moderate quality (i.e. 'B' category), twenty-two trees, six groups, and four hedges were categorised as low quality (i.e. 'C' category), and three trees were classed as unsuitable for retention (i.e. 'U' category) regardless of the development proposals.



## 6. ARBORICULTURAL IMPACT ASSESSMENT

#### 6.1. Proposed Development

6.1.1. It is proposed to construct a new 2.3m security fence around the school grounds along with some new manual and electronic gates. A section of security fencing already exists on part of the eastern boundary, no new fencing is planned where this security fencing is in place. The proposed plans are outlined in the site plan ref 10638-P-01. I note that the provided plans were not scaled correctly and NTB surveys have attempted to correct the scaling error. NTB do not accept any liability for any inaccuracies resulting from the re-scaling. Stratus9 Consulting also informed me that the position of the new fencing represented on the plan is indicative as the site is densely planted with trees and hedges. The proposal is simply a best-case scenario but flexibility in the design is expected.

#### 6.2. Impacts

- 6.2.1. I have overlayed the proposed site plan ref: 10638-P-01onto the existing site plan using computer aided design software and found a number of locations in which there are conflicts with existing trees. I have made this plan available in appendix IV titled Arboricultural Implications Plan.
- 6.2.2. In order to fully assess the impact of the proposals, I have created an Impact Table below (Table 2) in which I detail each tree, indicate which tree/s can be retained and which need to be removed, outline any mitigation needed and give a justification for any actions outlined.
- 6.2.3. I used the aforementioned Impact Table and Arboricultural Implications Plan in my analysis to determine whether the development will have an impact on the health of each tree. Where I have determined there is an impact, I have then decided upon any mitigation measures that could be implemented to reduce the impact the proposals will have on the treescape.



#### Table 2. Impact Table

Tree No.	Retention Category	Can the Tree/s be Successfully Retained	Explanatory Notes & Justification
G1#	C2	Yes	-
T2#	C1	Yes	-
T3	B1	Yes	-
T4	C1	Yes	-
H5	C2	Yes	-
T6	C1	Yes	-
Τ7	B1	Yes	-
T8	C1	Yes	-
G9	C2	Yes	-
T10	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T11	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T12	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T13	C1	Yes	-
T14	C1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
H15	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T16	C1	Yes, with mitigation	The new fence will be constructed within the RPA and must be



Tree No.	Retention Category	Can the Tree/s be Successfully Retained	Explanatory Notes & Justification
			undertaken carefully as outlined in section 7.1
T17	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1 This tree will also require the crown raising on the western side to a height of 3.5m as outlined in section 7.2
T18	C1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T19	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T20	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1 This tree will also require the crown raising on the western side to a height of 3.5m as outlined in section 7.2
H21	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T22	C1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
G23	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1



Tree No.	Retention Category	Can the Tree/s be Successfully Retained	Explanatory Notes & Justification
T24	C1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
H25	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T26	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T27	C1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T28	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T29	B1	Yes	-
T30	C1	Yes	-
T31	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T32	C1	Yes	-
T33	C1	Yes	-
T34	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T35	U	Yes, with mitigation	The new fence will be constructed within the RPA and must be



Tree No.	Retention Category	Can the Tree/s be Successfully Retained	Explanatory Notes & Justification
			undertaken carefully as outlined in section 7.1
T36	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T37	C1	Yes	-
T38	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
G39	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T40	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T41	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1 This tree will also require the crown raising on the western side to a height of 3.5m as outlined in section 7.2
T42	C1	Yes	-
G43a	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1 This tree will also require the crown raising on the eastern side to a height of 3.5m as outlined in section 7.2
G43b	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be



Tree No.	Retention Category	Can the Tree/s be Successfully Retained	Explanatory Notes & Justification
			undertaken carefully as outlined in section 7.1 This tree will also require the crown raising on the eastern side to a height of 3.5m as outlined in section 7.2
G43c	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1 This tree will also require the crown raising on the eastern side to a height of 3.5m as outlined in section 7.2
G43d	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1 This tree will also require the crown raising on the eastern side to a height of 3.5m as outlined in section 7.2
G43e	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1 This tree will also require the crown raising on the eastern side to a height of 3.5m as outlined in section 7.2
G43f	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1 This tree will also require the crown raising on the eastern side to a height of 3.5m as outlined in section 7.2
G43g	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be



Tree No.	Retention Category	Can the Tree/s be Successfully Retained	Explanatory Notes & Justification
			undertaken carefully as outlined in section 7.1
			This tree will also require the crown
			raising on the eastern side to a height of 3.5m as outlined in section 7.2
G43h	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1 This tree will also require the crown raising on the eastern side to a height of 3.5m as outlined in section 7.2
T44	B1	Yes	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T45	B1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T46	U	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T47	C1	Yes	-
T48	C1	Yes	-
T49	U	Yes	-
T50	C1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
G51	C2	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1



Tree No.	Retention Category	Can the Tree/s be Successfully Retained	Explanatory Notes & Justification
			The branches of this group will likely need to be pruned back on the northern side of the group by up to 2m as outlined in section 7.2
T52	C1	Yes	-
T53	C1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1
T54	C1	Yes, with mitigation	The new fence will be constructed within the RPA and must be undertaken carefully as outlined in section 7.1

6.2.4. I have created an Assessment Table (Table 3) to help visualise the number of trees that will or will not be impacted by the proposed development. To assess the implications of the Impact Table each tree can be categorised in the following way: -

#### Table 3. Assessment Table

	Trees to be	e Retained	Trees to be Removed					
	With No Impact	With detailed construction	Due to Condition	Due to Development				
Category A	-	-	-	-				
Category B	T3, T7, T29,	T10, T11, T12, T17, T19, T20, T26, T28, T31, T34, T36, T38, T40, T41, T44, T45,	-	-				



Category C	G1#, T2#, T4, H5, T6, T8, G9, T13, T30, T32, T33, T37, T42, T47, T48, T52,	T14, H15 T16, T18, H21, T22, G23, T24 H25, T27, G39, G43a, G43b, G43c, G43d, G43c, G43d, G43e, G43f, G43g, G43h, T50, G51, T53, T54,	_	-
Category U	T49,	T35, T46,	-	-

6.2.5. As can be seen in table 3, no trees require removal to facilitate this development.



## 7. MITIGATION PROPOSALS

#### 7.1. Installation of security fence

- 7.1.1. The proposed new security fence could have negative implications for T10, T11, T12, T14, H15, T16, T17, T18, T19, T20, H21, T22, G23, T24, H25, T26, T27, T28, T31, T34, T35, T36, T38, G39, T40, T41, G43a, G43b, G43c, G43d, G43e, G43f, G43g, G43h, T44, T45, T46, T50, G51, T53, T54 and could have negative implications for the Safe Useful Life Expectancy of the trees if not mitigated against.
- 7.1.2. The proposed site plan fence locations are to be treated as indicative and fluid, the proposed fencing will take into account the trees and hedgerows on this site.
- 7.1.3. It is my opinion that any adverse effects of the installation of this fence could be mitigated if the following precautions and guidelines are adhered to:
  - A fence design that allows for varying distances between fence posts will be selected.
  - The fence will be installed around any trees and be allowed to flow and bend through the site.
  - Each fence post will have trial holes dug by hand to ensure that no major roots are severed, if a significant root is found (a root greater than 2.5cm) then the holes will be backfilled, and another hole dug until a suitable place for the post can be found.
  - Roots smaller than 2.5cm can be pruned using a sharp tool such as secateurs or a handsaw.
  - The post will be installed at least 0.5 metres away from any tree stems.
  - The panels will be installed no closer than 300mm to a stem to allow for yearly incremental growth.
  - No large surface roots will be pruned or chopped for the installation of the panels. The panels should be cut around any surface roots leaving at least 10cm clearance.
  - When installing the concrete to support the post within the RPA of any trees or hedges, the post hole must be lined with a waterproof liner such as a Visqueen product to prevent any toxic leaching from the uncured concrete into the surrounding soil.
- 7.1.4. If the above measures are adhered to then the installation of the fence will not adversely affect the Safe Useful Life Expectancy of the trees at this site.



#### 7.2. Access Facilitation Pruning

- 7.2.1. I note that the proposals will require the crown lifting of T17, T20 and T41 up to 3.5m on the development side to aid the installation of the fence.
- 7.2.2. G43a to G43h will require crown lifting to a height of 3.5m on the development side of their crowns to aid the installation of the fence.
- 7.2.3. G51# will likely need to be pruned back from the boundary by up to 1.5m to aid the installation of the fence.
- 7.2.4. Other minor pruning works may be required around the site for the installation of the fence.
- 7.2.5. I believe that if all pruning works are undertaken in line with British Standard
   3998:2010 Tree Work Recommendations then the Safe Useful Life
   Expectancy of the trees will not be adversely affected.

## 8. ARBORICULTURAL METHOD STATEMENT REQUIREMENT

#### 8.1. Method Statement

8.1.1. To help ensure that the trees are protected onsite during the construction phase a separate Arboricultural Method Statement (Ref: 2026\_AMS.01) has been produced to accompany this document.



## 9. CAVEATS AND LIMITATIONS

- 9.1.1. The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by myself (Matthew Lally).
- 9.1.2. This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering, soils ecological or archaeological data. If either is commented upon within the report further professional advice should be sought.
- 9.1.3. This is not a Tree Risk Assessment. As such this report should not be taken to mean or imply that any of the inspected trees should be considered safe. A Tree Risk Assessment can be provided but would be subject to additional survey requirement and further fees.
- 9.1.4. Trees are growing dynamic structures. Whilst all reasonable effort has been made to identify 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 absolutely 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.
- 9.1.5. For the purposes of this survey all dimensions of trees and their associated parts are based on estimation unless otherwise stated.
- 9.1.6. Trees are living organisms whose health, condition and structure can change quickly and without warning. Therefore, the contents of this report are valid for a period of one year from the date of this survey.

## Appendix I Tree Survey Data & Site Notes

\*The recommendations in this section are based on the site survey only and are NOT recommendations to facilitate the development plans. See the Arboricultural METHOD STATEMENT for tree works required to facilitate the development.



DATE OI	F SURVEY: 18/09/2	2024			JOB RE	B REFERENCE: 2026_AIA.01 SITE ADDRESS: Barnacre Road Primary School, Barnacre Rd, Lon										R3 2PD
							Cro	own Sp	oread	(m)						
Tree No.	Species	Stem Dia (mm)	RPA (m²)	RPA Radius (m)	Height (m)	Age Class	N	E	s	W	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category
G1#	Hawthorn, Holly, Norway Maple	80	3	0.96	5	Y	1.5	1.5	1.5	1.5	2	В	Dense scrubby linear group outside of existing boundary fence. Low aesthetic value.	No action required.	10+	C2
T2#	Holly	75	3	0.9	5	Y	1	1	1	1	2	В	Slender stem. Slightly suppressed by adjacent tree. Low aesthetic value.	No action required.	10+	C1
Т3	Norway Maple	310	43	3.72	9	SM	4	4	3	5	2	A	Good form and vitality. Open balanced spreading crown. Single straight stem. Reduced leaf size.	No action required.	20+	B1
T4	Norway Maple	130	8	1.56	8	Y	3	3	2	2	3	A	Acute included codominant bifurcation at 1m - slender stems distally. Located outside existing boundary fence.	No action required.	10+	C1
H5#	Hawthorn, Holly, Elder	75	3	0.9	4	Y to SM	1.5	1.5	1.5	0.5	0	A to B	Possibly third party. Located outside existing boundary fence. Largely lapsed management. No significant defects noted.	No action required.	10+	C2
Т6	Norway Maple	210	20	2.52	7	SM	3	4	3	2	2	A	Good form and vitality. Codominant bifurcation at 2m. Historic partially occluded basal wound on W side - decay/cavitation is limited - not significant at present. Multiple partially occluded pruning wounds from previous crown lifts. Deadwood within crown.	No action required.	10+	C1
77	Common Ash	250	28	3	8	SM	3	4	4	3	5	A	Good form and vitality. Codominant bifurcation at 1.25m. Minor deadwood within crown. Located outside existing boundary fence.	No action required.	20+	B1
Т8	Holly	140	9	1.68	6	Y	1	1	1	1.5	3	A	Good form and vitality. Single straight stem. Open balanced crown - small crown. Located outside existing boundary fence.	No action required.	10+	C1



DATE OF SURVEY: 18/09/2024 JOB REFERENCE: 2026\_AIA.01 SITE ADDRESS: Barnacre Road Primary School, Barnacre Rd, Longridge, Preston, PR3 2PD Crown Spread (m) BS5837 Stem RPA Crown RPA Height Age Tree Remaining Radius Clearance Condition Species Dia Ν S W Comments Recommendations Retention E (m<sup>2</sup>) Class No. (m) Contribution (m) Category (mm) (m) Goat Willow, Group of x3 trees located in raised beds. Y to Japanese Maple, 7 G9# 230 24 2.76 3 3 3 3 2 A to B Third party. No significant defects noted. No action required. 10+ C2 SM Rhododendron Located outside existing boundary fence. Good form and vitality. Open balanced spreading crown. Codominant bifurcation at T10 250 28 10 EM 2 А No action required. 20+ **B1** Ash 3 1.25m. No defects noted. Located outside existing boundary fence. Open balanced crown. Primary union at 2m T11 English Oak 220 22 2.64 9 SM 3 2 2 2 А No action required. 20+ **B1** Δ to E with limb overhanging third party. Good form and vitality. Open balanced spreading crown. Multiple partially occluded T12 Hornbeam 240 26 2.88 6 SM 3 3 4 1 А No action required. 20+ **B1** pruning wounds from crown lifts. Open balanced crown. Codominant bifurcation at 0.5m. Multiple large partially T13 Plum 110 5 1.32 4 Υ 1 2 2 2 1 А No action required. 10 +C1 occluded pruning wounds from previous crown lifts. Slightly suppressed by adjacent trees. 2 В Slender phototrophic form. Single straight C1 T14 Sycamore 150 10 1.8 11 Υ 1.5 1.5 1.5 1.5 No action required. 20+ stem. Predominantly young boundary line Ash, Hawthorn, hedgerow. Predominantly hawthorn. Largely Y to H15 Elder, Wild Rose, 75 3 0.9 5 1 1 1 0 A to C No action required. 10+ C2 1 SM lapsed management. Suppressed by Holly adjacent trees. Slightly suppressed by adjacent trees with slender phototrophic form and minor crown T16 Beech 140 9 1.68 3 2 2 В No action required. 20+ C1 7 Y 3 1 asymmetry - weight bias to E. Single straight stem.



DATE OF SURVEY: 18/09/2024JOB REFERENCE: 2026_AIA.01											SITE ADDRESS: Barnacre Road Primary School, Barnacre Rd, Longridge, Preston, PR3 2PD					
							Cro	own Sp	read	(m)						
Tree No.	Species	Stem Dia (mm)	RPA (m²)	RPA Radius (m)	Height (m)	Age Class	N	E	S	w	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category
T17	English Oak	270	33	3.24	10	SM	4	3	4	4	1.5	A	Open balanced spreading crown. Minor crown asymmetry on east side due to proximity of adjacent tree. Single straight stem. Multiple partially occluded pruning wounds from previous crown lifts.	No action required.	40+	B1
T18	Holly	170	13	2.04	7	SM	3	3	1	2	2	В	Suppressed asymmetric crown due to proximity of adjacent tree. Unusual form - possibly previously topped at 2.5m. Low aesthetic value.	No action required.	10+	C1
T19	Sycamore	470	100	5.64	9	EM	5	5	4	5	2	A	Open balanced spreading crown. Codominant bifurcation at 2.5m. Minor deadwood within crown. Multiple partially occluded pruning wounds from previous crown lifts.	No action required	40+	В1
T20	English Oak	370	62	4.44	12	SM	4	4	5	5	2	A	Good form and vitality. Open balanced spreading crown. Limb on N side of crown recently failed on to adjacent third party garage. Dense ivy covering stem and primary branch framework - prevented detailed inspection.	Sever ivy and complete a risk of harm survey.	40+	B1
H21	Beech	75	3	0.9	2	SM to EM	0.5	0.5	0.5	0.5	0	A	Well maintained boundary line hedgerow. 1.75m in height. No significant defects noted.	No action required.	10+	C2
T22	Rowan	170	13	2.04	4	EM	2	3	2	2	2	В	Reduced vitality. Low aesthetic value. Open balanced crown. Acute primary unions.	No action required	10+	C1
G23	Beech	160	12	1.92	7	SM	2	2	2	2	2.5	В	Linear group of x3 trees. Stems from lapsed hedgerow management historically. Single roughly straight stems. Reduced vitality - chlorotic foliage. Low aesthetic value.	No action required.	10+	C2



DATE OF SURVEY: 18/09/2024 JOB REFERENC								ICE: 2026_AIA.01 SITE ADDRESS: Barnacre Road Primary School, Barnacre Rd, Longridge, Preston, PR3 2PD									
							Cro	own Sp	read	(m)							
Tree No.	Species	Stem Dia (mm)	RPA (m²)	RPA Radius (m)	Height (m)	Age Class	N	E	S	W	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category	
T24	Rowan	170	13	2.04	6	SM	2	2	2	2	2	В	Open balanced crown. Acute included codominant bifurcation at 1.75m. Low vitality.	No action required	10+	C1	
H25	Beech	75	3	0.9	0.5	SM to EM	0.5	0.5	0.5	0.5	0	A	Well maintained boundary line hedgerow. 1.75m in height. No significant defects noted.	No action required.	10+	C2	
T26	Grey Alder	480	104	5.76	14	Μ	6	4	5	6	3	A	Good form and vitality. Open balanced spreading crown. Acute primary unions. Multiple partially occluded pruning wounds from previous crown lifts.	No action required	40+	B1	
T27	Common Alder	180	15	2.16	14	SM	1.5	0	1.5	1.5	2	В	Suppressed by adjacent trees. Single straight very slender stem - phototrophic form. Small crown.	No action required	10+	C1	
T28	Field Maple	280	35	3.36	16	EM	4	2	1	4	2	A	Single straight stem to 4m. Asymmetric imbalanced crown due to proximity of adjacent trees.	No action required	20+	B1	
T29	Wild Cherry	260	31	3.12	14	SM	5	4	1	2	1.5	A	Asymmetric imbalanced crown with weight bias to NE.	No action required	20+	B1	
Т30	Wild Cherry	140	9	1.68	7	Y	3	3	1	1	1.5	В	Heavily suppressed by adjacent larger trees. Imbalanced with weight bias to NE. Low aesthetic value.	No action required	10+	C1	
T31	Horse Chestnut	600	163	7.2	15	EM	3	9	7	5	2	A	Multi-stemmed at 0.5m with acute included compression fork unions. Slender stems. Crossing stems and branches. Minor deadwood within crown.	No action required	20+	B1	



<b>DATE OF SURVEY:</b> 18/09/2024 <b>JOB REFERENCE:</b> 2026_AIA.01												SITE ADDRESS: Barnacre Road Primary School, Barnacre Rd, Longridge, Preston, PR3 2PD				R3 2PD
Crown Spread (m)																
Tree No.	Species	Stem Dia (mm)	RPA (m²)	RPA Radius (m)	Height (m)	Age Class	N	E	S	W	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category
T32	Dogwood	130	8	1.56	5	EM	2	3	1	0. 5	2	В	Heavily suppressed by adjacent trees with asymmetric imbalanced crown with weight bias to E - arcing stem.	No action required	10+	C1
Т33	Hornbeam	280	35	3.36	14	SM	2	5	3	3	2	A	Single straight stem. Asymmetric imbalanced crown with weight bias to E. Multiple partially occluded pruning wounds from previous crown lifts. Low aesthetic value.	No action required	20+	C1
T34	Lime	480	104	5.76	15	SM	4	6	4	4	2	A	Acute included codominant trifurcation at 1m. Minor crown asymmetry. Crossing branches throughout crown.	No action required	40+	B1
T35	Goat Willow	220	22	2.64	12	SM	2	2	2	1	2	С	Poor vitality. Suppressed by adjacent larger trees. Sparse crown - tree in decline. Structurally sound.	No action required	Less than 10	U
T36	Scots Pine	410	76	4.92	15	EM	4	4	2	5	6	A	Single straight slender stem. Minor crown asymmetry. Minor deadwood throughout lower crown.	No action required	40+	B1
T37	Silver Birch	230	24	2.76	12	SM	3	5	3	1	3	В	Fair to poor vitality. Reduced crown density. Minor stem lean to east. Asymmetric imbalanced crown with weight bias to east.	Monitor for decline.	10+	C1
T38	Hornbeam	400	72	4.8	13	EM	4	1	4	6	2	A	Asymmetric imbalanced crown with lean and significant weight bias to east - due to proximity of recently removed trees. Codominant bifurcation at 1m.	No action required.	20+	В1
G39	Hawthorn, Rowan, Elder, Holly	140	9	1.68	5	Y to EM	1.5	1.5	1.5	1.5	1	A to B	Lapsed linear hedgerow group - predominantly hawthorn and holly. Low value trees. Low aesthetic value. Good screening.	No action required.	10+	C2



DATE O	F SURVEY: 18/09/2	2024			JOB RE	FERENC	<b>E</b> : 20	26_AI	A.01	01 SITE ADDRESS: Barnacre Road Primary School, Barnacre Rd, Longridge, Preston, PR3 2PD								
							Cro	own Sp	read	(m)								
Tree No.	Species	Stem Dia (mm)	RPA (m²)	RPA Radius (m)	Height (m)	Age Class	N	E	S	w	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category		
T40	Ash	680	209	8.16	18	М	9	10	9	9	4	A	Large open spreading crown. Good form and vitality. Third party tree. No defects noted.	No action required.	20+	B1		
T41	Lime	440	88	5.28	13	ЕМ	3	6	5	5	0	A	Open balanced spreading crown. Large buttressing. Acute included primary union. Dense crown with crossing branches throughout.	No action required.	40+	B1		
T42	Swedish Whitebeam	480	104	5.76	10	М	5	4	4	3	1	В	Minor crown asymmetry due to proximity of adjacent trees. Fair vitality - slight reduction in crown density. Codominant bifurcation at 1.25m. Crossing branches within crown.	No action required.	10+	C1		
G43a	Hawthorn, Cherry Plum and Elder	240	26	2.88	5	SM to EM	1	2	3	1	0	B to C	Linear boundary line group, suppressed asymmetric crowns due to proximity of adjacent trees. Scrubby low value group. Dense ivy covering stems and primary branch framework.	No action required.	10+	C2		
G43b	Hawthorn, Cherry Plum and Elder	140	9	1.68	5	SM to EM	1	2	3	1	0	B to C	Linear boundary line group, suppressed asymmetric crowns due to proximity of adjacent trees. Scrubby low value group. Dense ivy covering stems and primary branch framework.	No action required.	10+	C2		
G43c	Hawthorn, Cherry Plum and Elder	220	22	2.64	5	SM to EM	1	2	3	1	0	B to C	Linear boundary line group, suppressed asymmetric crowns due to proximity of adjacent trees. Scrubby low value group. Dense ivy covering stems and primary branch framework.	No action required.	10+	C2		
G43d	Hawthorn, Cherry Plum and Elder	130	8	1.56	5	SM to EM	1	2	3	1	0	B to C	Linear boundary line group, suppressed asymmetric crowns due to proximity of adjacent trees. Scrubby low value group. Dense ivy covering stems and primary branch framework.	No action required.	10+	C2		



DATE OF SURVEY: 18/09/2024 JOB REFERENCE: 2026\_AIA.01 SITE ADDRESS: Barnacre Road Primary School, Barnacre Rd, Longridge, Preston, PR3 2PD Crown Spread (m) BS5837 Stem RPA Crown RPA Height Age Tree Remaining Radius Clearance Condition Species Dia Ν S W Comments Recommendations Retention E (m<sup>2</sup>) Class No. (m) Contribution (m) (mm) (m) Category Linear boundary line group, suppressed asymmetric crowns due to proximity of Hawthorn, Cherry SM to G43e 250 5 B to C C2 28 3 2 3 1 0 adjacent trees. Scrubby low value group. No action required. 10+ ΕM Plum and Elder Dense ivy covering stems and primary branch framework. Linear boundary line group, suppressed asymmetric crowns due to proximity of Hawthorn. Cherry SM to 5 G43f 150 10 1.8 2 3 0 B to C adjacent trees. Scrubby low value group. No action required. 10 +C2 Plum and Elder ΕM Dense ivy covering stems and primary branch framework. Linear boundary line group, suppressed asymmetric crowns due to proximity of SM to Hawthorn, Cherry 220 5 G43a 22 2.64 2 3 0 B to C adjacent trees. Scrubby low value group. No action required. 10 +C2 Plum and Elder EΜ Dense ivy covering stems and primary branch framework. Linear boundary line group, suppressed asymmetric crowns due to proximity of Hawthorn, Cherry SM to G43h 180 5 B to C C2 15 2.16 2 3 0 adjacent trees. Scrubby low value group. No action required. 10 +1 Plum and Elder ΕM Dense ivy covering stems and primary branch framework. Good form and vitality. Open balanced T44 Hornbeam 420 80 5.04 11 EΜ 5 6 5 1.5 А spreading crown. Heavy footfall within RPA. No action required. 20+ **B1** Low branches over playground. Good form and vitality. Minor crown asymmetry due to proximity of previously T45 Hornbeam 390 69 4.68 14 EM 6 4 3 1.5 А No action required. 20+ **B1** 4 removed tree. Heavy footfall within RPA. Low branches over playground. Poor vitality. Tree in decline - >50% crown T46 Hornbeam 400 72 4.8 12 ΕM 1.5 С dieback - chlorotic leaves throughout. No action required. Less than 10 U 5 6 4 Heavy footfall within RPA. Reduced vitality. Open balanced spreading 2 В C1 T47 Norway Maple 300 41 3.6 6 SM 3 3 3 3 No action required. 10+ crown. No significant defects noted.



DATE OF SURVEY: 18/09/2024         JOB REFERENCE: 2026_AIA.01										SITE ADDRESS: Barnacre Road Primary School, Barnacre Rd, Longridge, Preston, PR3 2PD						R3 2PD
							Cro	own Sp	oread	(m)						
Tree No.	Species	Stem Dia (mm)	RPA (m²)	RPA Radius (m)	Height (m)	Age Class	N	E	S	w	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category
T48	Cherry	160	12	1.92	3	SM	2	2	2	2	1.5	А	Good form and vitality. No defects noted.	No action required.	10+	C1
T49	Swedish Whitebeam	190	16	2.28	4	SM	2	2	2	2	2	D	Moribund. Tree in advanced state of decline. Sparse chlorotic crown.	No action required.	Less than 10	U
T50#	Rowan	120	7	1.44	7	SM	3	3	3	3	2	В	Open balanced crown. Acute primary unions. Reduced vitality.	No action required.	10+	C1
G51#	Hawthorn	160	12	1.92	6	SM to EM	3	3	3	3	2	A to B	Linear group of x5 third party trees. Dense ivy covering stems and primary branch frameworks. No significant defects visible.	No action required.	10+	C2
T52	Crab Apple	90	4	1.08	3	SM	2	2	2	2	1	A	Open balanced crown. Minor strimmer damage at base. No significant defects noted.	No action required.	10+	C1
T53#	Silver Birch	75	3	0.9	4	Y	1	1	1	1	0	A	Single straight stem. No defects noted.	No action required.	10+	C1
T54#	Silver Birch	80	3	0.96	4	Y	1	1	1	1	0	А	Single straight stem. No defects noted.	No action required.	10+	C1

# Appendix II Glossary of Terms

The following terms are concurrent with best Arboricultural practice and within the guidelines set by the International Society of Arboriculture (ISA), the Arboricultural Association (AA) and the British Standards Institute (BSI).

#### Age Range:

Age is site specific and categorised:

Young (Y)	Out-planted trees that have not yet established.
Semi-Mature (SM)	Established trees up to 1/3 of expected height and crown.
Early Mature (EM)	Between 1/3 and 2/3 of expected height and crown.
Mature (M)	Between 2/3 and full expected height and crown.
Fully Mature (FM)	Full expected height and crown.
Over Mature (OM)	Crown beginning to break-up and decrease in size.
Senescent (S)	Crown in advanced stage of break-up.

Height: Height is estimated and recorded in metres.

**DBH:** Diameter at Breast Height is measured at 1.5m and recorded in metres. Where a tree becomes multi-stemmed below 1.5m the highest possible diameter is measured and indicated. Alternatively, above 1.5m the diameter of each stem or an average diameter is measured and indicated.

**Condition:** Assessment of current physiological condition and structural morphology incorporating vigour and vitality and categorised:

- **A** Tree needing little, if any attention
- **B** Tree with minor, but rectifiable defects, or in the early stages of physiological stress
- C Tree with significant structural and physiological flaws and/or extremely stressed
- **D** Tree that is dead, biologically/physically moribund or dangerous.

**Desirability to Retain** – As Outlined in Table 1 of BS 5837:2005 (Trees in Relation to Construction - Recommendations)

#### Definition of Physiological & Morphological Terms

- Adaptive Growth The process whereby wood formation is influenced both in quantity and in quality by the action of gravitational force and mechanical stresses on the cambial zone.
- **Bifurcation –** Forked or divided union.
- Brown Rot Form of decay where cellulose is degraded, while lignin is only modified.
- Cankers- A localised area of dead bark and cambium on a stem or branch, caused by fungal or bacterial organisms, characterised by wound wood development on the periphery. This may be annual or perennial.
- Cavity An open wound, characterised by the presence of extensive decay and resulting in a hollow.
- **Chlorotic Leaf -** Lacking in chlorophyll, typically yellow in colour.
- **Compartmentalisation -** The physiological process that creates the chemical and mechanical boundaries that act to limit the spread of disease and decay organisms.
- Crack Longitudinal spilt in stem or branch, involving bark and/or underlying wood. These may be vertically and horizontally orientated.
- **Decay -** Process of degradation of woody tissues by fungi and bacteria through decomposition of cellulose and lignin.
- Deadwood Deadwood is often present within the crown or on the stems of trees. In some instances, is may be an indication of ill health, however, it may also indicate natural growth processes. If a target is present beneath the tree, deadwood may fall and cause injury or damage and should be removed, otherwise deadwood can remain intact for conservation purposes (insects, fungi, birds etc.).
- End Weight The concentration of foliage at the distal ends of stems and deficient in secondary branches.
- Girdling Root Root which circles and constricts the stem or roots causing death of phloem and/or cambial tissue.
- Hazard Beam An upwardly curved branch in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).

- Included Bark Union Pattern of development at branch junctions where bark is turned inward rather than pushed out. Potential weakness due to a lack of a woody union.
- Ivy Growth Ivy growth may ascend into the tree's crown, increasing wind resistance, concealing potential defects and reducing the tree's photosynthetic capacity. Ivy growth is often acceptable in woodland areas as a conservation benefit.
- Live Crown Ratio The relative proportion of photosynthetic mass (leaf area) to overall tree height.
- **Reaction Wood -** Specialised secondary xylem, which develops in response to a lean or similar mechanical stress, attempting to restore the stem to the vertical.
- Root Plate Lift The physical movement of the rooting plate causing soils to shift and crack. May occur during adverse weather conditions. Trees may become unstable.
- Root Protection Area 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 is treated as a priority. This area should be considered a no go area for development unless very careful mitigation measures are implemented and agreed with the LPA.
- Structural Defect Internal or external points of weakness, which reduce the stability of the tree.
- Suppressed Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.
- Topping -A highly disfiguring practice, likely to cause severe xylem<br/>dysfunction and decay in major structural parts of the wood.
- White Rot Form of decay where both cellulose and lignin are degraded.
- **Wound -** Any injury, which induces a compartmentalisation response.
- Wound wood Wood with atypical anatomical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound as opposed to the ambiguous term "callus."
- Woodland Structure The vertical and horizontal arrangement of trees within a group or woodland i.e. Dominant - trees with a crown above the upper layer of the canopy, Co-dominant - trees that define the general upper edge of the canopy, Intermediate - trees that have been largely overgrown by others, Suppressed - trees that have been

overgrown and occupy an understory position and grow slowly, often severely asymmetrical.

Note: The definitions described above, may not necessarily be included within the Arboricultural Survey Data.

# Appendix III Cascade Chart

Trees for removal													
Category and definition	Criteria												
<b>Category U</b> Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<ul> <li>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other U Category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</li> <li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.</li> <li>Trees infected with pathogens of significance to the health and/or safety of other trees nearby) e.g. Dutch elm disease), or very low-quality trees suppressing adjacent trees of better quality.</li> </ul>												
Trees to be considered for retention													
	Criteria and sub-categories												
Category and definition	1) Mainly arboricultural values	2) Mainly landscape values	3) Mainly cultural values										
			(including conservation)										
Category A Trees of high quality: with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and or landscape features	Trees, groups or woodlands of significant conservation, historical commemorative or other value (e.g. veteran trees or wood-pastures)										
Category B Those of moderate quality: with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider area	Trees with clearly identifiable conservation or other cultural benefits										
Category C Those of low quality 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 the higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.	Trees with no material conservation or other cultural value										

## Appendix IV Tree Constraints Plan & Arboricultural Implications Plan







# Appendix V Pictorial Evidence



Picture 1. G1



Picture 2. T2



Picture 3. T3



Picture 4. T4



Picture 5. T6



Picture 6. T6



Picture 7. T7



Picture 8. T7



Picture 9. T8



Picture 10. G9



Picture 11. G9



Picture 12. T10



Picture 13. T11



Picture 14. T12



Picture 15. T13



Picture 16. T14



Picture 17. T16



Picture 18. T17



Picture 19. T18



Picture 20. T18



Picture 21. T19



Picture 22. T20



Picture 24. G23

Picture 23. T22



Picture 25. T24



Picture 26. T26



Picture 27. T27



Picture 28. T28



Picture 29. T29 & T30



Picture 31. T31



Picture 30. T31



Picture 32. T32 & T33



Picture 33. T32 & T33



Picture 34. T34



Picture 35. T34



Picture 36. T35



Picture 37. T36



Picture 38. T37



Picture 39. T38



Picture 40. T38



Picture 41. T40



Picture 42. T41



Picture 43. T41



Picture 44. T42





Picture 46. G51#

Picture 45. T45 & T46



Picture 47. T52



Picture 48. T53# & T54#