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ARBORICULTURAL ASSESSMENT

Client

Hargreaves Land

Project

Lincolnshire Lakes, Scunthorpe

Date

February 2025

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PLANS

APPENDICES

Rev	Issue Status	Prepared/Date	Approved/Date
-	Draft	JW/08/01/25	EC/14/01/25
	Final	JW/04/02/25	EC/04/02/25

1.0 INTRODUCTION

1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Hargreaves Land to present the findings of an Arboricultural Assessment and survey of trees located at Lincolnshire Lakes, Scunthorpe (hereafter referred to as the site), OS Grid Ref SE865095.

Site Description

1.2 The site comprises several agricultural field parcels situated either side of Brumby Common Lane, Scunthorpe. The northern parcel has Scotter Road to the east, the A1077(M) to the west and further agricultural field parcels to the north. The southern parcel has Scotter Road to the east, the M181 to the west and residential housing and more agricultural field parcels on the southern boundary. The site is comprised of arable fields with existing access to both parcels coming from Brumby Common Lane. Due to the previous land use, most of the tree cover associated with site was restricted to the boundaries.

Planning Allocation

1.3 The site forms part of a wider allocation within the Local Development Framework for North Lincolnshire Council under the North Lincolnshire Core Strategy for Approximately 6,000 houses in 6 waterside villages, 5 lakes with opportunities for leisure and recreation, and for enhancing biodiversity and is afforded significant weight.

Scope of Assessment

1.4 A tree survey and assessment of existing trees was carried out by FPCR Environment and Design on 14th November 2024 in accordance with guidance contained within British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' (hereafter referred to as BS5837).

1.5 This report has been produced to accompany a hybrid planning application proposals which include:

- Full planning application for the construction of a new vehicular access off the M181/A1077(M) roundabout, a pedestrian and cycle link to Scotter Road, a foul pumping station, earthworks and 'off-plot' drainage, ecological and associated landscaping and infrastructure works.
- Outline planning application, with all matters reserved, for the development of up to 550 residential dwellings (Use Class C3), a local centre (Use Class E) and associated 'on-plot' landscaping, drainage and other infrastructure works.

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

2.0 PLANNING POLICY

National Planning Policy Framework December 2024

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

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

2.3 In relation to arboriculture, the NPPF states that:

- 136 '*Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined (footnote 52), that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users'. (footnote 52: unless, in specific cases, there are clear, justifiable and compelling reasons why this would be inappropriate)*
- *193 (c) 'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons (footnote 70) and a suitable compensation strategy exists*'.

  and provides specific guidance that:

- *193 (d) 'development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.*

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

Local Planning Policy

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

2.6 Within the context of the adopted Local Plan May 2003 for North Lincolnshire Council there are several policies relating to trees. The following lists the most relevant.

LC7 - Landscape Protection

Where development is permitted within rural settlements or within the open countryside, special attention will be given to the protection of the scenic quality and distinctive local character of the landscape. Development which does not respect the character of the local landscape will not be permitted

Local landscape character areas and local landscape types have been defined for the whole of North Lincolnshire. All proposals for development will have regard to the conservation and enhancement of the district's landscape and its features, and will seek to maintain local variations in the landscape. Wherever possible, woodlands, grasslands, heathlands and other habitats of landscape importance together with valuable existing landscape features, such as hedgerows, trees, copses, ponds, watercourses, dykes, historical sites, estate features, enclosure landscapes, and other built heritage features will be protected and enhanced.

All proposals for development will have regard to the landscape assessment and guidelines and the Countryside Design Summary, which are to be used as supplementary planning guidance.

LC12 - Protection of Trees, Woodland and Hedgerows

Proposals for all new development will, wherever possible ensure the retention of trees, woodland and hedgerows. Particular regard will be given to the protection of these features within the setting of settlements, the protection of ancient woodlands and historic hedgerows and the amenity value of trees within built up areas. Tree preservation orders will be made where trees which contribute to local amenity or local landscape character are at risk. Landscaping and tree and hedgerow planting schemes will be required to accompany applications for new development where it is appropriate to the development and its setting.

Trees and woodland are relatively scarce in North Lincolnshire and are of particular importance in contributing to the character of the countryside. Similarly, hedgerows which are important to the character of the area particularly in relation to the scale and pattern of the landscape, and as a wildlife resource are markedly absent or in a state of decline through lack of proper management. There is a pressing need to protect and enhance these features not only through the control of development but also through encouraging farmers and landowners generally to increase tree and hedgerow planting and improve the management of such valuable features, including the retention of older trees where these are not prejudicial to public safety.

Lincolnshire lakes area action plan

Policy SS2: spatial concept & place-making

The concept framework and design principles set out below should inform the detailed design of AAP proposals (d3 strategic design codes and d4 area masterplans):

Existing woodland (brumby grove and brumby common), mature trees and hedgerows should be retained within the new development sensitively arranged around them to create a parkland character.

3.0 SURVEY METHODOLOGY

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

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

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

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

BS5837 Categories

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

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

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

3.7 **Category (U) – (Red):** Trees which are unsuitable for retention and are in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. Trees within this category are:

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

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

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

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

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

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

- Subcategory (i) trees that might be included in category A but are downgraded because of impaired condition for example the presence of significant though remediable defects, including unsympathetic past management and storm damage.
- Subcategory (ii) trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.
- Subcategory (iii) trees with material conservation or other cultural value.

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

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

Considerations and Limitations of the Tree Survey

3.11 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.

3.12 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.

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

3.14 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 thirty-nine individual trees, thirteen groups of trees, two woodlands and two hedgerows were surveyed as part of the Arboricultural Assessment. Trees were surveyed as individual trees, groups, hedgerows and woodland as per the survey methodology.

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

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

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

Results Summary

4.5 Tree cover on the site is considered typical of open countryside with arable context, with a mix of unmaintained and maintained hedgerows forming field boundaries, which support a good number of standard individual trees. The tree cover recorded was mostly of mature proportions and considered of low, moderate and high quality, from an arboricultural perspective.

4.6 The dominant tree species associated with the site were English oak *Quercus robur*, which made up twelve of the thirty-nine individual trees and goat willow *Salix caprea*, with a total of eleven individual trees. The majority were of mature age and sizable proportions. The remainder of trees were a mix of Scots pine *Pinus sylvestris*, silver birch *Betula pendula*, common hawthorn *Crataegus monogyna*, crack willow *Salix fragilis* and hybrid black poplar *Populus x canadensis*. Tree groups were also dominated by English oak, common ash and silver birch, along with an abundance of hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, Scots pine and holly *Ilex aquifolium*.

4.7 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				
Category A (High Quality / Value)	T31	1	G10, G12, W2	3
Category B (Moderate Quality / Value	T2, T3, T4, T5, T6, T7, T8, T9, T10, T18, T20, T23, T26, T27, T28, T34, T35, T36	18	G2, G3, G4, G5, G6, G7, G11, G13	8
Category C (Low Quality / Value)	T1, T11, T12, T13, T14, T15, T16, T17, T19, T21, T22, T24, T25, T29, T30, T32, T33, T37, T38, T39	20	G1, G8, G9, H1, H2	5

4.8 The oaks were mostly of good condition and were notable arboricultural features of the local landscape being recorded as category A (high arboricultural quality and value) and category B (moderate quality and value). T31 was considered a particularly good examples of species and by virtue of the long-lived nature of oak trees, would have a life expectancy greater than 40 years.

4.9 The goat willows were of varied condition, many showing signs of previous failure either from the main stem or branches / crown parts. For their maturity and condition, nearly all the goat willows specimens were recorded as being retention category B (moderate quality and value) or in cases where structural condition has been compromised, retention category C (low quality and value).

4.10 A total of thirteen tree groups were recorded being of varying size and condition, these groups were mostly limited to the external field boundaries. The most notable of the groups are G10 and G12 which displayed mature age and proportions, provided visual amenity and were in prominent locations and considered retention category A.

4.11 Tree groups G2, G3, G4, G5, G6, G7, G11 and G13 were graded retention category B, lacking the quality necessary to merit higher classification. With Tree groups G1, G8 and G9 being considered of low quality from an arboricultural perspective and graded retention category C.

4.12 Hedgerows were found on the boundaries of the field compartments and were a mix of native species with hawthorn being the dominant composition along with occasional elder *Sambucus nigra*, holly and hazel. Arboriculturally, most hedgerows were graded retention category C (low quality and value).

Ancient and Veteran Trees

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

Statutory Considerations

4.14 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.

4.15 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.

4.16 Following consultation with the Local Planning Authority, North Lincolnshire Council, it is understood that there are two a Tree Preservation Orders, which applies to several trees present within the assessment site and therefore statutory constraints apply to the development in respect of trees..

4.17 Table 2 below details which trees are included in the North Lincolnshire Council Tree Preservation Orders.

Table 2: Tree Preservation Order Details

Tree No. taken from FPCR	TPO reference no.
G10, G11, G12	W1 03 FEB 1981
W2	W1 17 JUL 1975

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 7730-SMR-00-ZZ-DR-A-8008-S3-P1 and seeks to outline the relationship between the proposals and the existing trees and hedgerows. The drawing shows the proposals for the hybrid planning application proposals include:

- Full planning application for the construction of a new vehicular access off the M181/A1077(M) roundabout, a pedestrian and cycle link to Scotter Road, a foul pumping station, earthworks and 'off-plot' drainage, ecological and associated landscaping and infrastructure works.
- Outline planning application, with all matters reserved, for the development of up to 550 residential dwellings (Use Class C3), a local centre (Use Class E) and associated 'on-plot' landscaping, drainage and other infrastructure works.

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 A Detailed Access Arrangement Plan has also been provided to demonstrate the location of the primary access position in relation to the surrounding tree cover allowing the identification of any potential conflicts through implementation of the site access.

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

Table 3: Summary of Impact on Tree Stock

	Trees to be Retained	Total	Trees to be Removed in full or part	Total
Category U - Unsuitable				
Category A (High Quality / Value)	T31, G10, G12	3		
Category B (Moderate Quality / Value	T2, T3, T4, T5, T6, T7, T8, T9, T10, T18, T20, T23, T26, T27, T28, T34, T35, T36, G2, G3, G4, G5, G6, G7, G11, G13, W1	27		
Category C (Low Quality / Value)	T11, T14, T15, T16, T17, T19, T21, T29, T30, T32, T33, T37, T38, T39, G1, G9	16	T1, T12, T13, T22, T24, T25, G8	7

5.6 To improve pedestrian access to the site off Scotter Road, will require the removal of T12, T13, T22, T24, T25 and G8 along Brumby Common Road. The removal of these low-quality trees and groups would be unavoidable to provide any access from this boundary and the proposals have been designed to allow for the retention of the higher quality trees recorded within both groups and along the boundary with Brumby Common Road.

5.7 Where the access road extends within the site, the layout has identified further removal of H1 and H2 to provide a small development area close to Brumby Common Road. Again, the removal of this section of tree cover which comprises of small hedgerow specimens and would not be considered a significant arboricultural impact and could be mitigated for through new tree planting across the development.

5.8 It is likely the removal of H1 and H2 will be required for suitable internal space within the parcel, which runs north to south through the centre of site. The retention of the hedgerow within a future development is unfeasible and its removal would require mitigation in the form of new hedgerow planting which should deliver a net gain in terms of linear hedgerows to compensate for any losses.

Impacts to TPO Trees

5.9 The proposals would not require the removal of any trees afforded protection by a Tree Preservation Order.

Discussion

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

6.0 NEW TREE AND HEDGEROW PLANTING

6.1 As part of the development proposals an adequate quantity of structured tree planting has been identified within the submitted Landscaping Plan to mitigate for the proposed tree removal. This new tree planting has been identified within or close to hard landscaped areas, alongside the primary access roads, within the roadside verges and within proposed areas of public open space.

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 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).

6.4 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.

6.5 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.

6.6 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.

7.0 TREE PROTECTION MEASURES

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

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

General Information and Recommendations

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

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

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

Tree Protection Barriers

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

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

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

Protection outside the exclusion zone

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

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

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

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

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

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

8.0 TREE MANAGEMENT

8.1 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 reduce risks as far as is 'reasonably practical' (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 risk3.

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

3 The Health and Safety at Work Act 1974

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N

0 50 100 150 200m

Notes:

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

- Category A - Trees / Groups of High Quality (BS5837:2012)
- Category B - Trees / Groups of Moderate Quality (BS5837:2012)
- Category C - Trees / Groups of Low Quality (BS5837:2012)
- Hedgerow
  Colour Indicates BS5837:2012 Category
- Woodland
  (Colour Indicates BS5837:2012 Category)
- Root Protection Area
- T1(A) G1(A) Individual/Group number and BS5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

rev	date	description	drwn/chkd
-	28.11.24	First Issue	JW / GEC

client
Hargreaves Land

project
Lincolnshire Lakes, Scunthorpe

title
TREE SURVEY PLAN

scale
1:2000 @ A1

number
11186-T-01

status –

rev –

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t: 01509 672772 e: mail@fpcr.co.uk w: www.fpcr.co.uk

11186-T-02

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0 50 100 150 200m

Notes:

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

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  (Colour Indicates BS5837:2012 Category)
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- T1(A) G1(A) Individual/Group number and BS5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

rev	date	description	drwn/chkd
-	28.11.24	First Issue	JW / GEC

client
Hargreaves Land

project
Lincolnshire Lakes, Scunthorpe

title
TREE SURVEY PLAN

scale
1:2000 @ A1

number
11186-T-02

status
-

rev
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N

0 50 100 150 200m

Notes:

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

- Tree/Group to be Retained
- Tree/Group proposed to be removed subject to relevant permissions
- Hedgerow Proposed to be Retained and Incorporated into the New Development
- Hedgerow proposed to be removed subject to relevant permissions
- 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)

rev	date	description	drwn/chkd
-	08.01.25	First Issue	JW / GEC
A	05.02.25	Revision	JW / GEC

client
Hargreaves Land

project
Lincolnshire Lakes, Scunthorpe

title
TREE RETENTION PLAN

scale
1:2000 @ A1

number
11186-T-03

status
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11186-T-04

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Notes:

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

- Tree/Group to be Retained
- Tree/Group proposed to be removed subject to relevant permissions
- Hedgerow Proposed to be Retained and Incorporated into the New Development
- Hedgerow proposed to be removed subject to relevant permissions
- 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)

rev	date	description	drwn/chkd
-	08.01.25	First Issue	JW / GEC
A	05.02.25	Revision	JW / GEC

client
Hargreaves Land

project
Lincolnshire Lakes, Scunthorpe

title
TREE RETENTION PLAN

scale
1:2000 @ A1

number
11186-T-04

status
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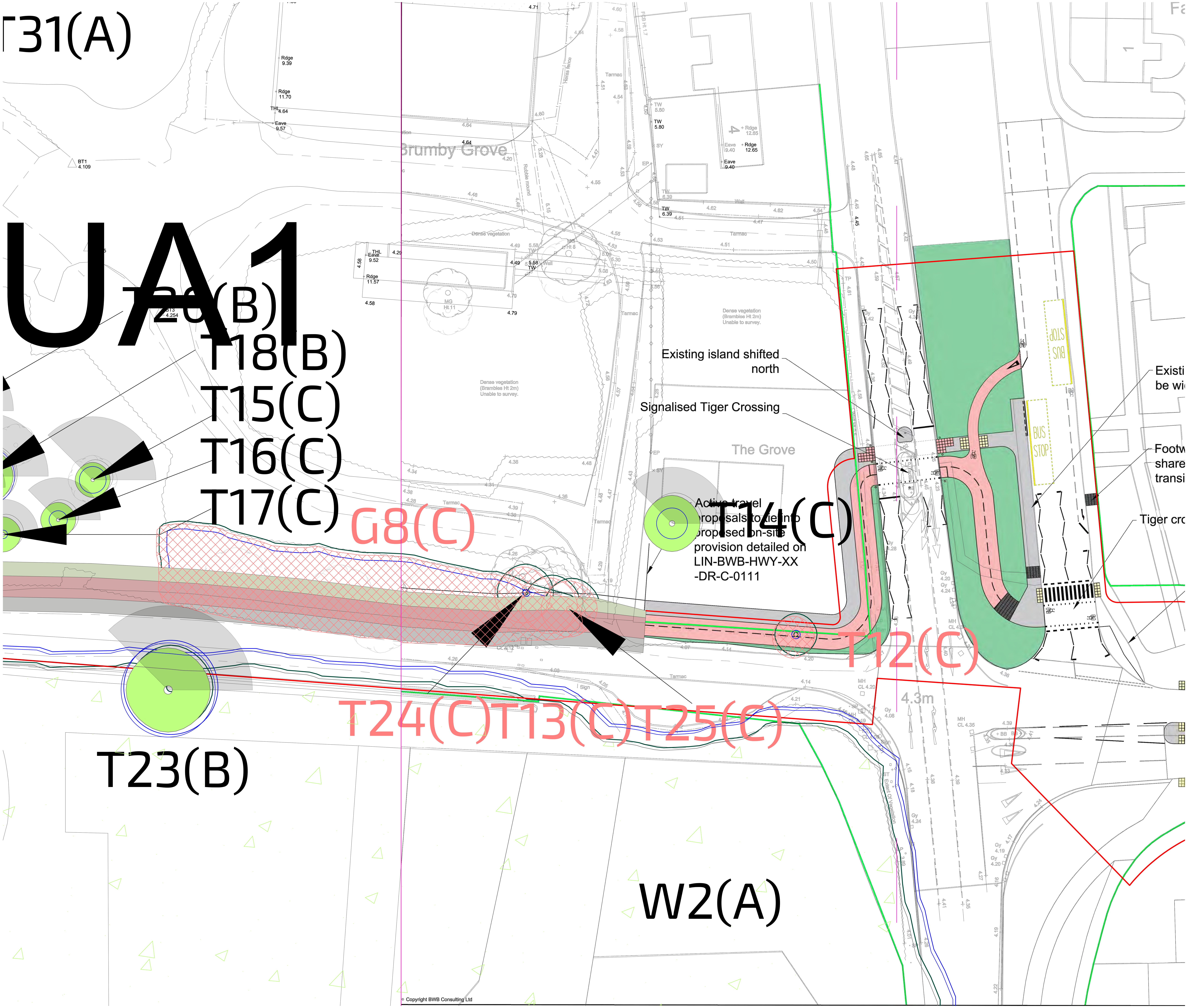

N

0 50 100 150 200m

Notes:

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

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

rev	date	description	drwn/chkd
-	08.01.25	First Issue	JW / GEC

client
Hargreaves Land

project
Lincolnshire Lakes, Scunthorpe

title
TREE RETENTION PLAN - ACCESS

scale
1:2000 @ A1

number
11186-T-05

status
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rev
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FPCR | environment & design

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Appendix A - Tree Schedule

Measurements	Age Classes	Quality Assessment of BS Category	ULE (relates to BS Category)
Height - Measured using a digital laser clinometer (m)	**YNG**: Establishing, typically with good vigour and fast growth rates and strong apical dominance; c. less than 1/3 life expectancy	**Category U -** Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	<10 years
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837	**SM:** Semi-mature trees less than 1/3 life expectancy	**Category A -** Trees of high quality with an estimated remaining life expectancy of at least 40 years.	40+ years
Crown Radius - Measured using a digital laser clinometer radially from the main stem (m)	**EM:** Established, typically vigorous and increasing in apical height and lateral spread; 1/3 - 2/3 life expectancy. Offers landscape significance	**Category B -** Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	20-40 years
Abbreviations est - Estimated stem diameter avg - Average stem diameter for multiple stems upto - Maximum stem diameter of a group	**M:** Fully established over 2/3 life expectancy, generally good vigour and achieving full height potential with crown still spreading	**Category C -** Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	10-20 years
	OM: Fully mature, at the extremes of expected life expectancy, vigour decreasing, declining or moribund	Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value	
	V: biological, cultural or aesthetic value comprising niche saproxylic habitat. Individuals of large proportions (stem girth) in comparison to trees of the same species/surviving beyond the typical age range for their species.	**The BS category particular consideration has been given to the following:** • The presence of any structural defects in each tree/group and its future life expectancy • The size and form of each tree/group and its suitability within the context of a proposed development • The location of each tree relative to existing site features e.g. its screening value or landscape features • Age class and life expectancy	

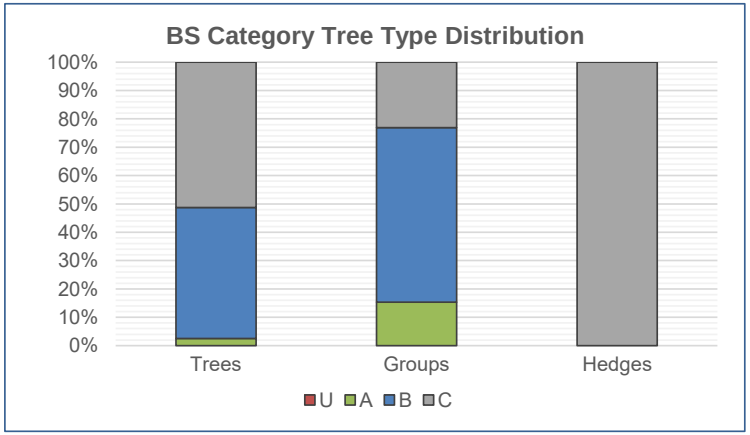
Structural Condition	Physiological Condition	Root Protection Area (RPA)
Good - No significant structural defects	**Good -** No significant health problems	• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described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

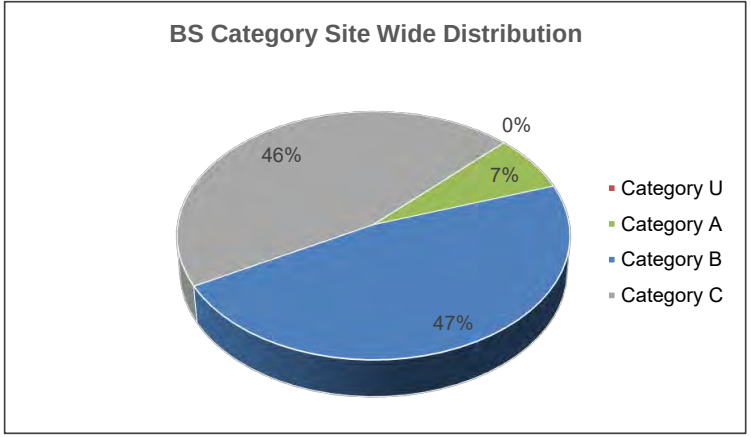
Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U		0		0
Category A	T31	1	G10, G12, W2	3
Category B	T2, T3, T4, T5, T6, T7, T8, T9, T10, T18, T20, T23, T26, T27, T28, T34, T35, T36	18	G2, G3, G4, G5, G6, G7, G11, G13	8
Category C	T1, T11, T12, T13, T14, T15, T16, T17, T19, T21, T22, T24, T25, T29, T30, T32, T33, T37, T38, T39	20	G1, G8, G9, H1, H2	5
	Total	39	**Total**	16

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	Hawthorn Crataegus monogyna	5	upto 180 150 150	3	EM	F	Characteristic for species Close cultivation of the soil Low crown form Multi leadered form	35	3.3	C (i)
T2	Goat Willow Salix caprea	8	upto 310	4	M	F	Characteristic for species Flail damage evident Interlocking crowns Minor dead wood evident in the crown (<75mm)	43	3.7	B (ii)
T3	English Oak Quercus robur	12	est 600	6	EM	F	Characteristic for species Even crown form Flail damage evident Interlocking crowns Minor dead wood evident in the crown (<75mm)	163	7.2	B (i)
T4	English Oak Quercus robur	12	est 280 300 310	5	EM	F	Characteristic for species Even crown form Flail damage evident Interlocking crowns Minor dead wood evident in the crown (<75mm)	120	6.2	B (i)
T5	English Oak Quercus robur	10	est 480	5	EM	F	Characteristic for species Even crown form Flail damage evident Interlocking crowns Minor dead wood evident in the crown (<75mm)	104	5.8	B (i)
T6	English Oak Quercus robur	12	est 600	6	EM	F	Characteristic for species Even crown form Flail damage evident Interlocking crowns Minor dead wood evident in the crown (<75mm)	163	7.2	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T7	English Oak Quercus robur	12	est 600 500 430	8	EM	F	Characteristic for species Even crown form Flail damage evident Interlocking crowns Minor dead wood evident in the crown (<75mm) Twin stemmed from base	360	10.7	B (i)
T8	English Oak Quercus robur	12	est 720	8	EM	F	Characteristic for species Dense undergrowth at the base Even crown form Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Unable to gain access	235	8.6	B (i)
T9	Crack Willow Salix fragilis	20	upto 900 750 480	10	M	F	Characteristic for species Dense undergrowth at the base Included bark union Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi stemmed from base	707	Capped at 15m	B (i)
T10	Goat Willow Salix caprea	17	upto 540 460	7	M	F	Characteristic for species Dense undergrowth at the base Included bark union Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Twin stemmed from base	228	8.5	B (i)
T11	Goat Willow Salix caprea	6	upto 20x 50	N - 6 S - 6 E - 4 W - 2	EM	F	Broken branches evident Coppiced form Dense undergrowth at the base Flail damage evident Included bark union Limited future potential Low crown form Multi stemmed from base	23	2.7	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T12	Goat Willow Salix caprea	5	avg 60x 6	3	SM	F	Characteristic for species Coppiced form Dense undergrowth at the base Included bark union Low crown form Multi stemmed from base	1	0.6	C (i)
T13	Goat Willow Salix caprea	7	avg 50x 6	4	SM	F	Characteristic for species Coppiced form Dense undergrowth at the base Included bark union Low crown form Multi stemmed from base	1	0.5	C (i)
T14	Hybrid Black Poplar Populus x canadensis	8	est 180	4	SM	F	Characteristic for species Dense undergrowth at the base Low crown form Unable to gain access	15	2.2	C (i)
T15	Silver Birch Betula pendula	9	est 80 100 100	2.5	SM	F	Coppiced form Dense undergrowth at the base Low crown form Multi stemmed from base Unable to gain access	12	1.9	C (i)
T16	Scots Pine Pinus sylvestris	6	est 110	2.5	SM	F	Coppiced form Dense undergrowth at the base Low crown form Single stem forms Unable to gain access	5	1.3	C (i)
T17	Goat Willow Salix caprea	5	avg 60x 6	2.5	SM	F	Characteristic for species Coppiced form Dense undergrowth at the base Included bark union Low crown form Multi stemmed from base	1	0.6	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T18	Scots Pine Pinus sylvestris	9	est 350	4	SM	F	Dense undergrowth at the base Single stem forms Unable to gain access	55	4.2	B (ii)
T19	Scots Pine Pinus sylvestris	6	est 180	2.5	SM	F	Dead trees noted	15	2.2	C (i)
T20	Scots Pine Pinus sylvestris	9	est 280 300	4	SM	F	Dense undergrowth at the base Multi leadered form Single stem forms Unable to gain access Twin stem from 1.8m	76	4.9	B (ii)
T21	Scots Pine Pinus sylvestris	7	est 150	2.5	SM	F	Coppiced form Dense undergrowth at the base Low crown form Single stem forms Unable to gain access	10	1.8	C (i)
T22	Goat Willow Salix caprea	4	avg 30x 6	3	SM	F	Characteristic for species Coppiced form Dense undergrowth at the base Included bark union Low crown form Multi stemmed from base	0	0.4	C (i)
T23	English Oak Quercus robur	12	upto 560	6	EM	F	Branch stubs evident Broken branches evident Characteristic for species Dense undergrowth at the base Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form	142	6.7	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T24	Goat Willow Salix caprea	7	avg 50x 6	4	SM	F	Characteristic for species Coppiced form Dense undergrowth at the base Included bark union Low crown form Multi stemmed from base	1	0.5	C (i)
T25	Goat Willow Salix caprea	7	avg 50x 6	4	SM	F	Characteristic for species Coppiced form Dense undergrowth at the base Included bark union Low crown form Multi stemmed from base	1	0.5	C (i)
T26	English Oak Quercus robur	13	est 650 600	N - 2 S - 7 E - 6 W - 6	EM	F	Branch stubs evident Broken branches evident Characteristic for species Dense undergrowth at the base Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form	354	10.6	B (ii)
T27	Scots Pine Pinus sylvestris	11	upto 480 400	N - 6 S - 2 E - 6 W - 4	EM	F	Characteristic for species Dense undergrowth at the base Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Storm damage present One leader has failed and is hung up in crown	177	7.5	B (ii)
T28	Scots Pine Pinus sylvestris	11	est 520	4	EM	F	Broken branches evident Characteristic for species Dense undergrowth at the base Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form Storm damage present	122	6.2	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T29	Scots Pine Pinus sylvestris	11	est 310	3	EM	F	Broken branches evident Characteristic for species Dense undergrowth at the base Interlocking crowns Minor dead wood evident in the crown (<75mm)	43	3.7	C (i)
T30	Scots Pine Pinus sylvestris	8	est 270	3	EM	F	Broken branches evident Characteristic for species Dense undergrowth at the base Interlocking crowns Minor dead wood evident in the crown (<75mm)	33	3.2	C (i)
T31	English Oak Quercus robur	12	upto 1000	7	EM	F	Branch stubs evident Broken branches evident Characteristic for species Dense undergrowth at the base Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form Pruning wounds noted	452	12.0	A (i)
T32	Goat Willow Salix caprea	10	avg 7x 200	5	M	F	Characteristic for species Coppiced form Dense undergrowth at the base Interlocking crowns Multi stemmed from base	127	6.3	C (i)
T33	Silver Birch Betula pendula	15	upto 210	3	EM	F	Characteristic for species Interlocking crowns Companion to goat willow	20	2.5	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T34	English Oak Quercus robur	12	upto 600 450 410 280	7	EM	F	Branch stubs evident Broken branches evident Characteristic for species Dense undergrowth at the base Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form Pruning wounds noted	366	10.8	B (i)
T35	English Oak Quercus robur	15	upto 540	6	EM	F	Branch stubs evident Broken branches evident Characteristic for species Dense undergrowth at the base Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Pruning wounds noted	132	6.5	B (i)
T36	Scots Pine Pinus sylvestris	12	upto 380	3	EM	F	Broken branches evident Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm)	65	4.6	B (ii)
T37	Hawthorn Crataegus monogyna	6	upto 6x 130	N - 4 S - 4 E - 2 W - 2	M	F	Branch stubs evident Characteristic for species Flail damage evident Included bark union Minor dead wood evident in the crown (<75mm) Situated western side of ditch	46	3.8	C (i)
T38	Goat Willow Salix caprea	4	avg 12x 30	N - 5 S - 2 E - 2 W - 2	SM	F	Coppiced form Multi stemmed from base Growing in centre of ditch	5	1.2	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T39	English Oak Quercus robur	8	est 570 320	7	EM	F	Broken branches evident Crown had been topped Even crown form Minor dead wood evident in the crown (<75mm) Overhead cables Pruning wounds noted Twin stemmed from base Unable to gain access Utility pruned situated on southern side of ditch companion oak tree	193	7.8	C (i)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Ash Fraxinus excelsior Goat Willow Salix caprea Hawthorn Crataegus monogyna Hybrid Black Poplar Populus x canadensis Silver Birch Betula pendula	9	avg 300	4	SM / EM / M	F	Characteristic for species Dense undergrowth at the base Interlocking crowns Low crown form Minor dead wood evident in the crown (<75mm)	41	3.6	C (i)
G2	Sycamore Acer pseudoplatanus Scots Pine Pinus sylvestris	18	avg 350	4	EM / M	F	Characteristic for species Dense undergrowth at the base Interlocking crowns Minor dead wood evident in the crown (<75mm)	55	4.2	B (ii)
G3	English Oak Quercus robur Silver Birch Betula pendula Sycamore Acer pseudoplatanus Scots Pine Pinus sylvestris	18	avg 350	4	EM / M	F	Characteristic for species Dense undergrowth at the base Interlocking crowns Minor dead wood evident in the crown (<75mm)	55	4.2	B (ii)
G4	Hybrid Black Poplar Populus x canadensis Silver Birch Betula pendula	15	upto 450	4	EM / M	F	Characteristic for species Dense undergrowth at the base Interlocking crowns Low crown form	92	5.4	B (ii)

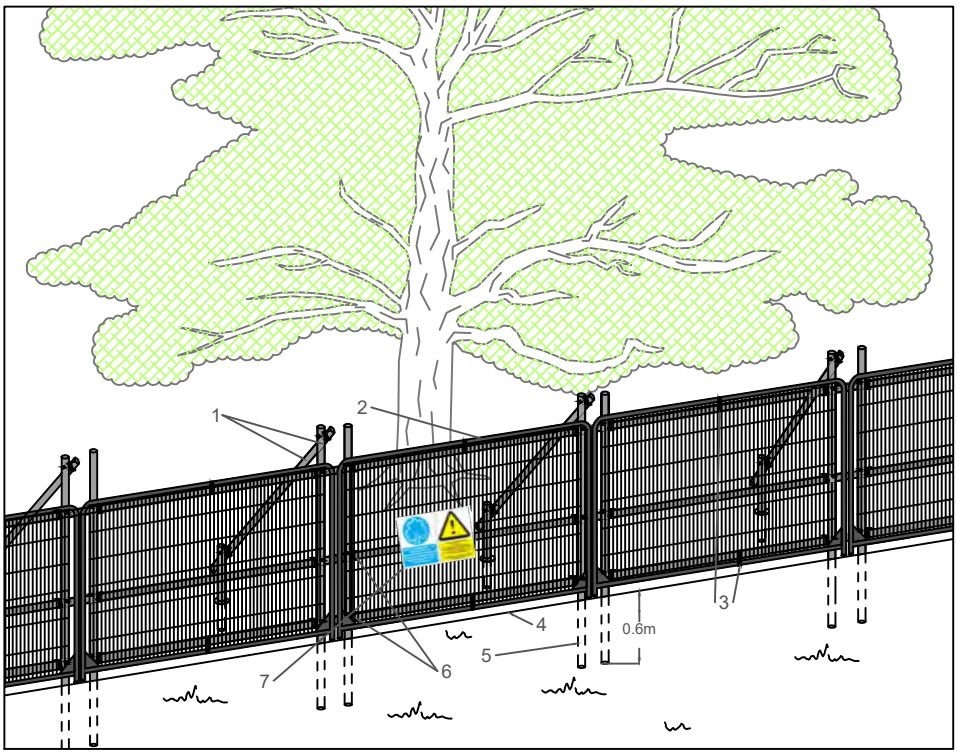
Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G5	English Oak Quercus robur Field Maple Acer campestre Hawthorn Crataegus monogyna Hybrid Black Poplar Populus x canadensis Silver Birch Betula pendula Hazel Corylus avellana Holly Ilex aquifolium	18	upto 500	5	EM / M	F	Broken branches evident Characteristic for species Dense undergrowth at the base Heartwood exposed Included bark union Interlocking crowns Low crown form Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Typical crown form Unable to gain access	113	6.0	B (ii)
G6	Elder Sambucus nigra English Oak Quercus robur Field Maple Acer campestre Hawthorn Crataegus monogyna Hybrid Black Poplar Populus x canadensis Silver Birch Betula pendula Sycamore Acer pseudoplatanus Alder Alnus glutinosa Hazel Corylus avellana Holly Ilex aquifolium Scots Pine Pinus sylvestris	18	upto 500	5	EM / M	F	Broken branches evident Characteristic for species Dense undergrowth at the base Heartwood exposed Included bark union Interlocking crowns Low crown form Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Typical crown form Unable to gain access	113	6.0	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G7	Ash Fraxinus excelsior English Oak Quercus robur Goat Willow Salix caprea False Acacia Robinia pseudoacacia Swedish Whitebeam Sorbus intermedia Common Larch Larix decidua Scots Pine Pinus sylvestris	12	upto 300	3	SM / EM	F	Broken branches evident Characteristic for species Dense undergrowth at the base Interlocking crowns Low crown form Minor dead wood evident in the crown (<75mm)	41	3.6	B (ii)
G8	Goat Willow Salix caprea Silver Birch Betula pendula	6	avg 70	3	Yng / SM	F	Branch stubs evident Broken branches evident Characteristic for species Coppiced form Included bark union Interlocking crowns Pruning wounds noted	2	0.8	C (i)
G9	Elder Sambucus nigra English Oak Quercus robur Hawthorn Crataegus monogyna	4	avg 60	2	Yng / SM	F	Characteristic for species Dense undergrowth at the base Low crown form Unable to gain access	2	0.7	C (i)
G10	English Oak Quercus robur Goat Willow Salix caprea Silver Birch Betula pendula Scots Pine Pinus sylvestris	15	upto 300	4	EM / M	F	Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm)	41	3.6	A (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G11	English Oak Quercus robur Silver Birch Betula pendula	15	upto 600	7	EM	F	Broken branches evident Characteristic for species Included bark union Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form	163	7.2	B (ii)
G12	English Oak Quercus robur Goat Willow Salix caprea Silver Birch Betula pendula	15	upto 450	4	EM / M	F	Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm)	92	5.4	A (ii)
G13	Elder Sambucus nigra English Oak Quercus robur Goat Willow Salix caprea Hawthorn Crataegus monogyna Silver Birch Betula pendula	16	avg 350	4	Yng / SM / EM	F	Characteristic for species Dense undergrowth at the base Included bark union Interlocking crowns Low crown form Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	55	4.2	B (ii)

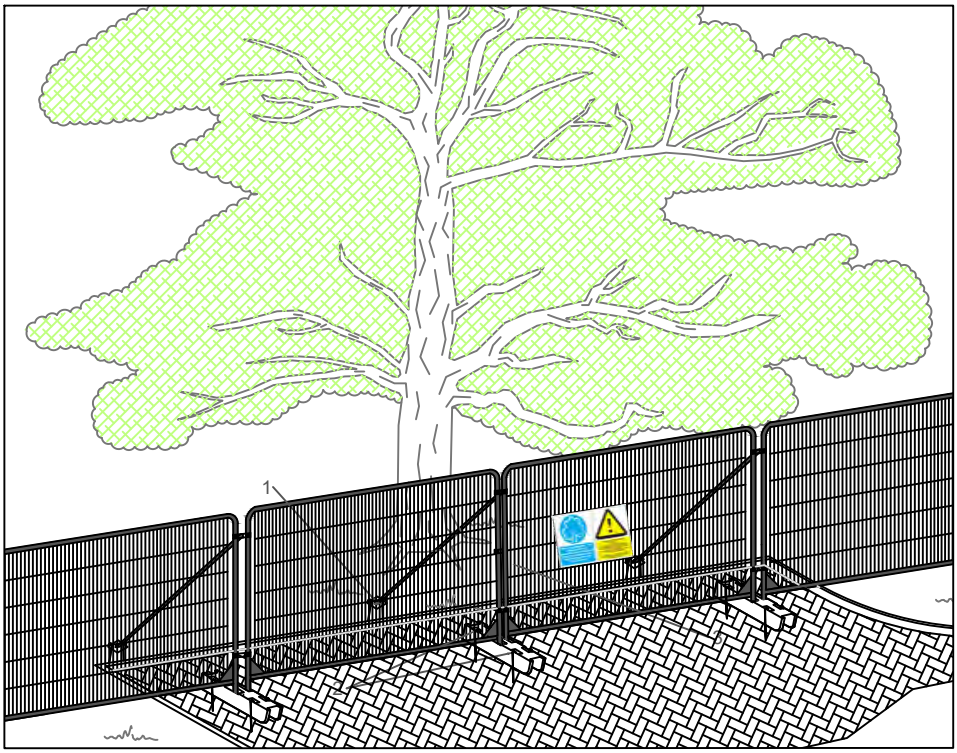
Hedge No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
HEDGEROWS										
H1	Elder Sambucus nigra Hawthorn Crataegus monogyna	2	avg 6x 75	0.5	EM	F	Maintained hedgerow	15	2.2	C (i)
H2	Elder Sambucus nigra Hawthorn Crataegus monogyna	3	avg 6x 75	0.5	EM	F	Gaps present in hedgerow Maintained hedgerow	15	2.2	C (i)

Wood No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
WOODLANDS										
W1	Elder Sambucus nigra English Oak Quercus robur Goat Willow Salix caprea Silver Birch Betula pendula	13	avg 320	4	SM / EM	F	Characteristic for species Dense undergrowth at the base Interlocking crowns Low crown form	46	3.8	B (ii)
W2	Ash Fraxinus excelsior Elder Sambucus nigra English Oak Quercus robur Goat Willow Salix caprea Hybrid Black Poplar Populus x canadensis Alder Alnus glutinosa Scots Pine Pinus sylvestris	20	avg 600	5	EM / M	F	Broken branches evident Characteristic for species Dense undergrowth at the base Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm)	163	7.2	A (iii)



Specification for High Intensity Protection 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



Specification for Low Intensity Protection Barrier

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

APPENDIX B
PROTECTIVE FENCING SPECIFICATIONS

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