Lindum Group

Doncaster Road, Scunthorpe

Arboricultural Assessment

January 2024

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1.0 INTRODUCTION

1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Lindum Group to present the findings of an Arboricultural Assessment and survey of trees located at Land off Doncaster Road, Scunthorpe (hereafter referred to as the site), OS Grid Ref SE 865 113.

Site Description

1.2 Situated to the west of Scunthorpe, north of Doncaster Road, the site is a greenfield currently in arable production. Gallagher Retail Park and a Tesco Extra supermarket lie to the south of the site, the northern boundary is formed by Soak Mere Drain, beyond which is open agricultural land, to the west is the A1077, and to the east is an area of unmanaged grassland beyond which is a residential development.

Planning History

1.3 The site forms part of a wider allocated site for residential development identified within the adopted Housing and Employment Land Allocations Development Plan Document (DPD) for North Lincolnshire Council, under allocation SCUH-8 Land north of Doncaster Road.

1.4 The site also forms part of a wider employment allocation in the emerging new Local Plan for North Lincolnshire under allocation EC1-2 Land at north of Doncaster Road. The new Local Plan has yet to be adopted but has been submitted to the Secretary of State and is progressing towards the examination in public.

1.5 An outline planning application for residential development, open space, a primary school and associated access and landscaping with all matters reserved except for access, was granted approval by North Lincolnshire Council, on 17.06.09, (planning reference PA/2007/0828) subject to conditions.

Scope of Assessment

1.6 A tree survey and assessment of existing trees was carried out by FPCR Environment and Design on 8th December 2023 in accordance with guidance contained within British Standard 5837:2012 ‘Trees in Relation to Design, Demolition and Construction - Recommendations' (hereafter referred to as BS5837).

1.7 This report has been produced to accompany an outline planning application for employment use with access provided through Gallagher Retail Park to the south.

1.8 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 the likely impact arising from the proposed development of the site.

2.0 PLANNING POLICY

National Planning Policy Framework September 2023

2.1 National Planning Policy is defined by the National Planning Policy Framework (NPPF). This sets out the Government's most current and up to date planning policies for England and how these should be applied. The current NPPF is dated September 2023.

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

2.3 In relation to arboriculture, the NPPF states that:

- *180 (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 63) and a suitable compensation strategy exists'.*

and provides specific guidance that:

- *180 (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 180 (c), examples of what is deemed to be *'wholly exceptional'* are included within Footnote 63 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 The Core Strategy for North Lincolnshire Council adopted June 2011 the following policy relates to trees.

CS16: NORTH LINCOLNSHIRE'S LANDSCAPE, GREENSPACE AND WATERSCAPE

The council will protect, enhance and support a diverse and multi-functional network of landscape, greenspace and waterscape through:

1. Identifying in supporting documents within or evidencing the Local Development Framework, a network of strategically and locally important landscape, greenspace and waterscape areas. Development on or adjacent to these areas will not be permitted where it would result in unacceptable conflict with the function(s) or characteristic of that area.

2. Requiring development proposals to improve the quality and quantity of accessible landscape, greenspace and waterscape, where appropriate.

3. Requiring development proposals to address local deficiencies in accessible landscape, waterscape and greenspace where appropriate.

4. Requiring the protection of trees, hedgerows and historic landscape to be specified where appropriate.

The creation and maintenance of the network of landscape, green space and waterscapes will be secured by a range of measures, including protecting open space, creating new open spaces as part of new development, and by using developer contributions to create, improve and maintain green infrastructure assets where appropriate.

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 where they form cohesive arboricultural features either aerodynamically, visually, or culturally including biodiversity or habitat potential for example parkland or wood pasture.

3.3 An assessment of individual trees within groups 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 and groups 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:

- 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:

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

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

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

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

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

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).

4.0 RESULTS

4.1 A total of three individual trees and six groups of trees were surveyed as part of the Arboricultural Assessment. Trees were surveyed as individual trees and groups as per the methodology.

4.2 Appendix A presents details of all individual trees and groups 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 and groups 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 The current arable use of the site has restricted tree cover to the site boundaries, with the site being devoid of any internal tree cover. Boundary tree cover included a small number of self-seeded trees to the north, east and west and planted tree groups to the south between the site and Gallagher Retail Park.

4.6 Table 1 below summarises the trees assessed and several of the trees have been discussed in more detail following the table.

Table 1: Summary of Trees by Retention Category

	Individual Trees	Total	Groups of Trees	Total
Category U - Unsuitable				
Category A (High Quality / Value)				
Category B (Moderate Quality / Value			G2, G5, G6	3
Category C (Low Quality / Value)	T1, T2, T3	3	G1, G3, G4	3

4.7 Three individual trees were recorded as part of the assessment these were. T1, a self-seeded elder *Sambucus nigra,* which had established within a disused area of grassland to the east of the site, T2, a self-seeded hawthorn *Crataegus monogyna,* which had established on a roadside embankment next to the A1077, and T3, a rowan *Sorbus aucuparia,* planted within the rear garden of a residential property to the east of the site. The three trees are all situated outside the application boundary and were assessed as being of low arboricultural value (Category C).

4.8 Of the six tree groups recorded, five were situated along the southern boundary, with only G1, a group of approximately eight self-seeded hawthorns being recorded on the northern boundary having established on the bank of Soak Mere Drain.

4.9 Groups G2 and G4, comprised of planted trees on a landscape plateau to the southwest of the site boundary. G2, a group of cherry *Prunus avium* were considered of moderate arboricultural value (Category B) with G4, a group of goat willow *Salix caprea* and hawthorn being recorded as low quality (Category C), due to several gaps within the group and lower quality specimens which reduced the groups landscape and arboricultural value.

4.10 G3, a small group of cherry had established on the site boundary next to G2 through self-propagation. Trees with G3 were recorded as low quality being suppressed by the larger neighbouring trees resulting in etiolated forms.

4.11 G5 and G6, two mixed species groups were situated along the southern boundary of the site with the adjoining Gallagher Retail Park. G5, had been planted along a palisade fence between the site and the rear service yards of adjoining units. The trees were of early mature proportions and had only attained height of up to 8m, but did provide some landscape and screening value from an arboricultural perspective and were recorded as Category B.

4.12 G6, another mixed species group had been planted along the edge of public footpath which crossed the southeast corner of the site before extending south to meet Doncaster Road. The trees with G6 all stood beyond the site boundary but were recorded to determine any arboricultural constraints they may pose to the development of the site.

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

4.14 It is understood following consultation with the Local Planning Authority, North Lincolnshire Council, that there are no Tree Preservation Orders or Conservation Area designations that would apply to any trees present on, or in proximity to the assessment site and therefore no statutory constraints would apply to the development in respect of trees.

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 Proposed Site Plan which shows the proposals for an outline application for employment use, showing three units, with access provided through Gallagher Retail Park to the south. This is an outline planning application, and the plan is subject to change as part of the subsequent reserve matters application, should the application be approved, but provides sufficient information to outline the relationship between the proposals and the existing trees and hedgerows.

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. The plan also identifies which trees would be required to be removed or retained as part of the proposed development.

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

Table 2: Summary of Impact on Tree Stock

	Trees/groups to be Retained	Total	Trees/groups to be Removed in full or part	Total
Category U - Unsuitable		0		0
Category A (High Quality / Value)		0		0
Category B (Moderate Quality / Value	G2, G5, G6	3		0
Category C (Low Quality / Value)	T1, T2, T3 G1, G4	3 2	 G3	0 1

5.5 Access to the site would be achieved through Gallagher Retail Park via an existing road and would not requiring the removal of any tree cover.

5.6 Although indicative at this stage the outline proposals do conflict with a single tree group in the west of the site (G3). G3, comprised of a small group of cherry which had established on the site boundary through self-propagation. Trees with G3 had been suppressed by larger neighbouring trees (G2) and are unlikely to develop into suitable mature specimens. Should the detailed layout require the removal of these trees this should not be considered a significant arboricultural impact and could easily be mitigated for through new tree planting which has been illustrated on the outline proposals.

5.7 The remaining tree cover is all shown to be retained and could feasibly be incorporated into the detailed design. The retention this tree cover and enhancement of the site through new tree planting could achieve an arboricultural gain and would meet the aspirations set out in the Core Strategy Policy.

5.8 In a subsequent Reserved Matters application, the final layout of the scheme should be informed by this assessment. The routing of below ground services should also consider retained trees and should not encroach within the Root Protection Areas of retained trees, as recommended by the guidance given in section 7.7 of BS5837.

6.0 NEW TREE AND HEDGEROW PLANTING

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

6.2 The landscaping scheme should consider the use of both native tree species (for their low maintenance requirements and nature conservation value) and ornamental species (for their contribution to urban design and amenity value). Species choices should be selected based on their suitability for the final site use.

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

Rooting Environment and Soil Volumes

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

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

General Planting Recommendations

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

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

7.0 TREE PROTECTION MEASURES

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

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

General Information and Recommendations

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

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

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

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

Tree Protection Barriers

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

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

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

Protection outside the exclusion zone

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

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

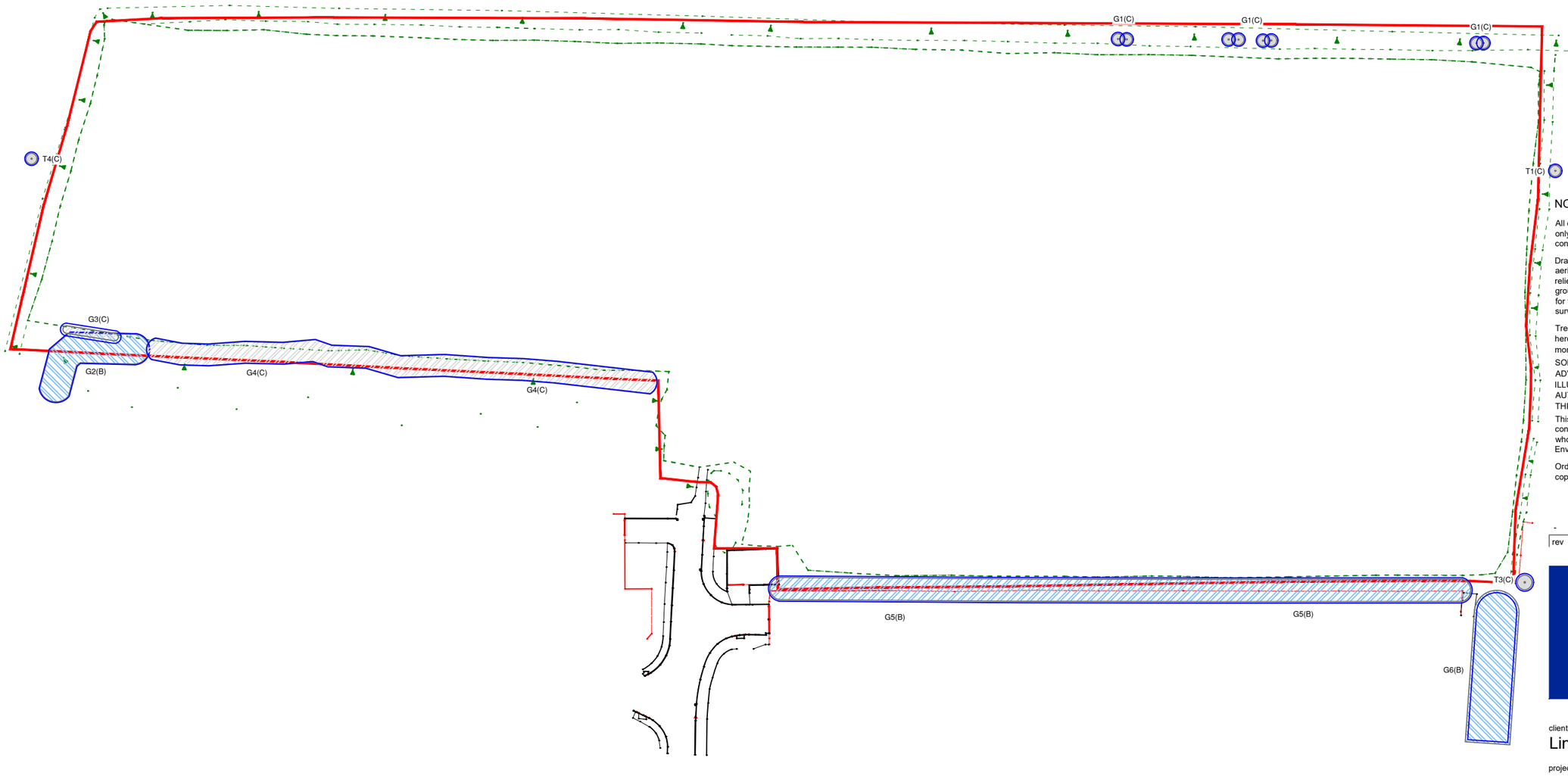
7.12 Wide or tall loads etc should not come into contact with retained trees. Banksman should supervise transit of vehicles where they are near retained trees.

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

N

KEY

- Category B - Trees / Groups of Moderate Quality (BS 5837:2012)
- Category C - Trees / Groups of Low Quality (BS 5837:2012)
- Root Protection Area
- T1 (A) G1 (A) — Individual / Group Number and BS5837:2012 Category
- Indicative Site Boundary



Scale 1:1250 @ A3

0 25 50 75m

NOTES

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

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

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

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

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drawing title
TREE SURVEY PLAN

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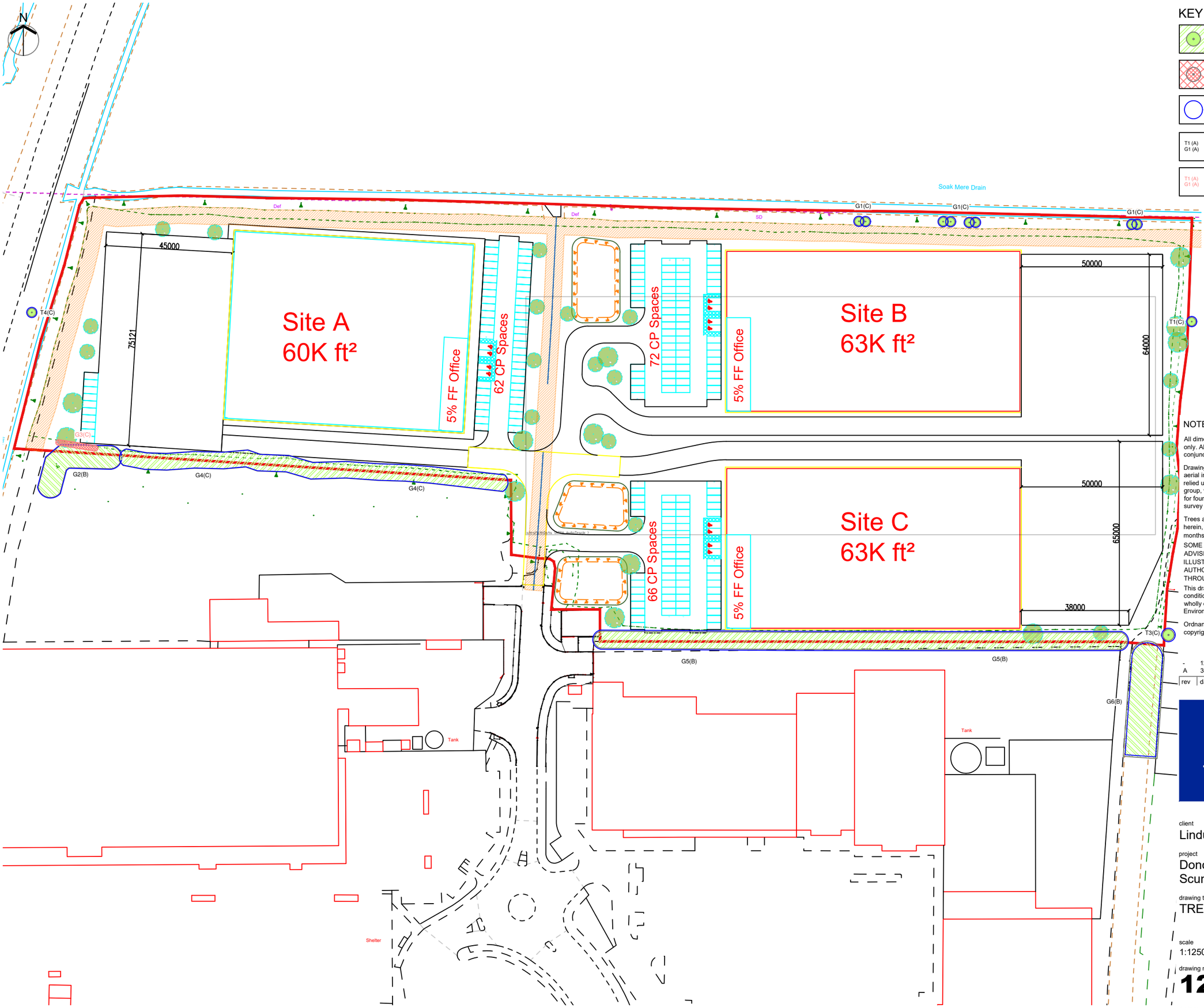

KEY

- Tree/Group to be Retained
- Tree/Group 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

Scale 1:1250 @ A3

0 25 50 75m

NOTES

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drawing title
TREE RETENTION PLAN

scale	drawn/checked	date
1:1250 @ A3	EC	January 2024

drawing number
12182-T-02

rev
A

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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	

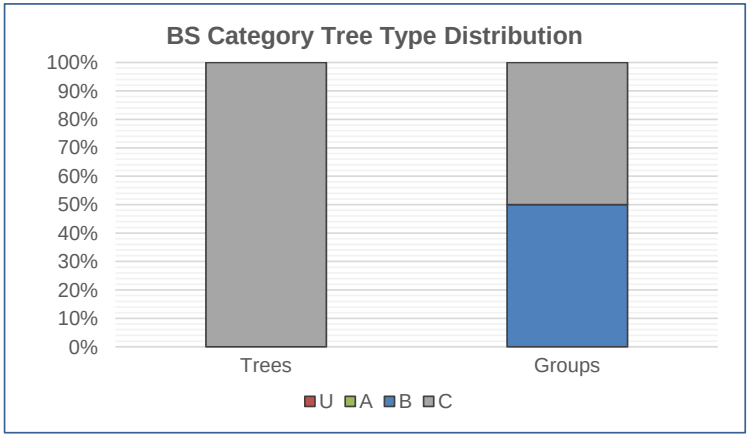
Structural Condition	Physiological Condition	Root Protection Area (RPA)
Good - No significant structural defects	**Good -** No significant health problems	• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described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

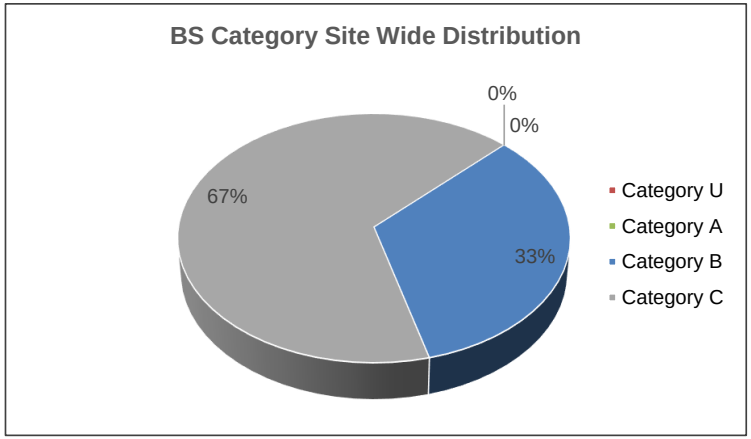
Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U		0		0
Category A		0		0
Category B		0	G2, G5, G6	3
Category C	T1, T2, T3	3	G1, G3, G4	3
	Total	3	**Total**	6

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.

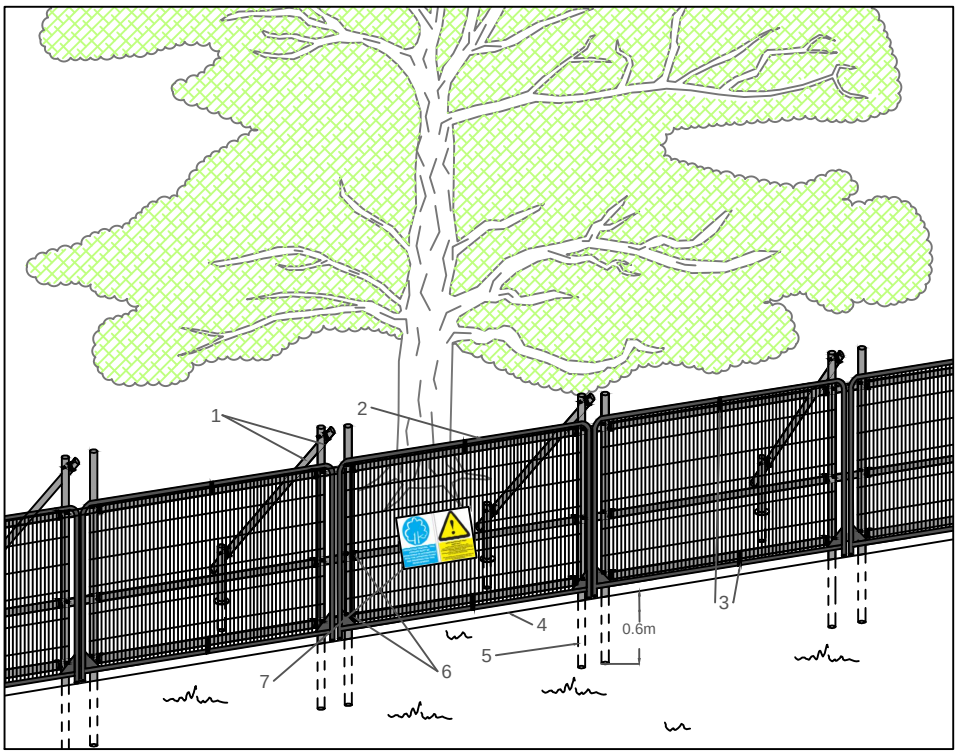




Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
INDIVIDUAL TREES										
T1	Elder Sambucus nigra	3	150	1.5	M	F	Self seeded tree situated beyond site boundary within adjoining unmaintained area	10	1.8	C (i)
T2	Hawthorn Crataegus monogyna	3	est 150	1.5	M	F	Self seeded tree situated beyond site boundary on road embankment unable to access	10	1.8	C (i)
T3	Rowan Sorbus aucuparia	4	est 200	2	EM	F	Situated beyond site boundary within adjoining rear garden unable to access	18	2.4	C (i)

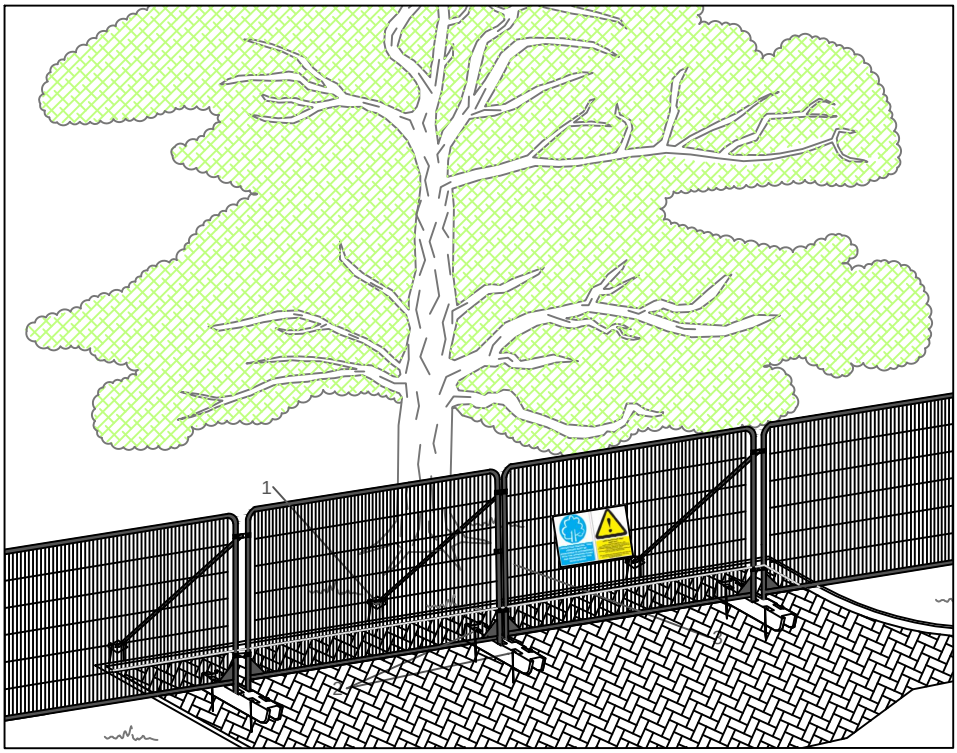
Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Hawthorn Crataegus monogyna	3	upto 150	1.5	M	F	Sporadic self seeded trees on bank of deep drainage channel flailed along field edge	10	1.8	C (ii)
G2	Wild Cherry Prunus avium	9	upto 350	4	M	F	Group of planted trees on mound of earth no obvious management	55	4.2	B (ii)
G3	Wild Cherry Prunus avium	5	upto 140	1	SM	F	Line of self seeded trees from adjacent mature tree group along field edge	9	1.7	C (ii)
G4	Goat Willow Salix caprea Hawthorn Crataegus monogyna	7	upto 6x 100	3	EM	F	Planted group of trees along soil embankment beyond site boundary multi stemmed willow no obvious management failed stems noted within group sparse in sections with limited screening value	27	2.9	C (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G5	Ash Fraxinus excelsior Beech Fagus sylvatica Blackthorn Prunus spinosa Field Maple Acer campestre Goat Willow Salix caprea Hawthorn Crataegus monogyna Wild Cherry Prunus avium Hazel Corylus avellana Laural Prunus Laurocerasus Privet Ligustrum ovalifolium Dogwood Cornus sanguinea Osier Salix viminalis Cotoneaster	8	upto 200	2	EM	F	Linear group of trees along site boundary situated both sides of a palisade fence running through the group dense ivy cover throughout group sparse in sections lower crowns have been flailed along field edge moderate screening value	18	2.4	B (ii)
G6	Ash Fraxinus excelsior Beech Fagus sylvatica Elder Sambucus nigra Field Maple Acer campestre Horse Chestnut Aesculus hippocastanum Privet Ligustrum ovalifolium Dogwood Cornus sanguinea	8	upto 200	3	EM	F	Linear group of trees along edge of footpath and adjoining residential development situated beyond site boundary and extends to South maintained along footpath edge	18	2.4	B (ii)



Standard specification for protective barrier

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



Above ground stabilising systems

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

masterplanning
environmental assessment
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ecology
architecture
arboriculture

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NOTES

drawing title

APPENDIX B
PROTECTIVE FENCING SPECIFICATIONS

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