



Bloor Homes East Midlands

**Phase 4 - Hollycroft Grange, Hinckley**

## **Arboricultural Impact Assessment & Method Statement**

May 2023

**FPCR Environment and Design Ltd**

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## 1.0 INTRODUCTION

- 1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Bloor Homes East Midlands to present the findings of an Arboricultural Assessment and survey of trees located at Hollycroft Grange, Hinckley (hereafter referred to as the site), OS Grid Ref SP 406 942.
- 1.2 The survey was carried out on 12<sup>th</sup> August 2022.

### Scope of Assessment

- 1.3 The tree survey and assessment of existing trees has been carried out in accordance with guidance contained within British Standard 5837:2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (hereafter referred to as BS5837). The guidelines set out a structured assessment methodology to assist in determining which trees would be deemed either as being suitable or unsuitable for retention.
- 1.4 The guidance also provides recommendations for considering the relationship between existing trees and how those trees may integrate into designs for development; demolition operations and future construction processes so that a harmonious and sustainable relationship between any retained trees and built structures can be achieved.
- 1.5 The purpose of the report is therefore to firstly, present the results of an 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.
- 1.6 This report has been produced to accompany a full planning application for additional land and a REM planning application in relation to the wider development. Both applications total 250 dwellings, the reserved matters is for 97 dwellings and the full application is for 153 residential dwellings with access and associated drainage and green infrastructure. The survey has assessed trees across the wider development and then focused on any trees present within or bordering the application boundaries that may potentially be affected by the future proposals or will pose a constraint to the proposed development.

### Site description

- 1.7 The site is comprised of a single previously agricultural field parcel, situated north west of the Hinckley. The sites eastern boundary is bordered by the A47, Normandy Way. The northern and western boundaries comprise of the current residential development and existing agricultural field parcels.
- 1.8 Tree cover is restricted to existing and past field parcel boundaries with the occasional free-standing tree. The perimeters of the site were comprised of established hedgerow boundaries, which now form dense linear tree cover, offering the site some screening value. The predominant species seen across the site was common ash *Fraxinus excelsior*, especially though the larger individual tree cover. Boundary groups were composed of a mix of other native species including blackthorn *Prunus spinosa*, hawthorn *Crataegus monogyna*, field maple *Acer campestre*, English oak *Quercus robur* and elder *Sambucus nigra*.

## 2.0 PLANNING POLICY

### National Planning Policy Framework July 2021

- 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 July 2021.
- 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*'. In the absence of a development plan or the development plan is out of date, the acting LPA should grant planning consent so far as the development proposals do not breach the policies and guidance outlined in the NPPF.
- 2.3 In relation to arboriculture, the NPPF also states that:
- *131 '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 50), 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 50: unless, in specific cases, there are clear, justifiable and compelling reasons why this would be inappropriate)*
  - *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 incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity'.*
- 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*'.

### **Statutory Considerations**

- 2.5 Local authorities have a Duty under the Town and Country Planning Act to create Tree Preservation Orders (TPO) in order to protect and preserve specific trees and woodlands that bring significant amenity benefit to a particular site or location. Under a TPO it is a criminal offence to cut down, top, lop, uproot or willfully 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. Anyone found guilty of such an offence is liable and in serious cases, may result in prosecution and incur an unlimited fine.
- 2.6 It is understood following consultation with the Local Planning Authority, Hinckley and Bosworth Borough Council, that there are no Tree Preservation Orders or Conservation Area designations that would apply to any trees present on, or in close proximity to the assessment site and therefore no statutory constraints would apply to the development in respect of trees.
- 2.7 Information provided on Tree Preservation Orders and Conservation Areas is accurate to the date of this assessment and cannot be assumed to remain unchanged. The last check was carried out on the 4<sup>th</sup> January 2023.

### **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 arboriculturalist 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 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.
- 3.3 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. A tree survey 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.
- 3.4 An assessment of individual trees within groups has been made where a clear need to differentiate between them, for example, in order to highlight significant variation between attributes including physiological or structural condition or where a potential conflict may arise.

## Ancient and Veteran Trees

- 3.5 Veteran trees and Ancient Woodland are important components of the landscape, their importance can be for a number of reasons including that of their ecological, social, cultural and historic value.
- 3.6 Veteran Trees and Ancient Woodlands are material considerations within the planning process and their importance is specifically recognised within the National Planning Policy Framework (NPPF) 2021 and defines the terms ancient or veteran tree as:

*‘A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.’<sup>1</sup>*

- 3.7 Various published methodologies are currently available which, due to the complexity and subjectivity of the process of defining and assessing these trees, often have conflicting definitions. This assessment, and the criteria used for defining ancient/veteran trees and the identification of attributable ancient/veteran features, has been based on a range of currently published guidance and resources.

## BS5837 Categories

- 3.8 Trees 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).

- 3.9 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. Categories A, B and C are applied to trees that should be of material considerations 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.

- 3.10 **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.

<sup>1</sup> Ministry of Housing, Communities and Local Government. (2019). *National Planning Policy Framework*. London: Ministry of Housing, Communities and Local Government.

- Certain category U trees can have existing or potential conservation value which may make it desirable to preserve.
- 3.11 **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.
- 3.12 **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.
- 3.13 **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.

### **Tree Schedule**

- 3.14 Appendix A presents details of any individual trees, groups, hedgerows and woodlands found during the assessment including heights, diameters at breast height, 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.

- 3.15 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.
- 3.16 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.
- 3.17 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. Hedgerows and substantial internal or boundary hedges (including evergreen screens) have been recorded including lateral spread, height and stem diameter(s). Where trees are present within a hedgerow that are significantly different in character from the remainder, these have been identified and recorded separately.
- 3.18 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'*<sup>2</sup>.
- 3.19 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'*<sup>3</sup>.
- 3.20 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.

### Site Plans

- 3.21 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.
- 3.22 As part of this assessment, a Tree Retention Plan has been prepared to show the proposed layout in relation to the existing tree cover allowing an assessment of any potential conflicts. The plan also identifies which trees would be required to be removed or retained as part of the proposed development.
- 3.23 A Tree Protection Plan is provided and forms part of the Arboricultural Method Statement. The plan shows the position of tree protection fencing in relation to retained trees.

<sup>2</sup> [http://www.countrysideinfo.co.uk/woodland\\_manage/whatis.html](http://www.countrysideinfo.co.uk/woodland_manage/whatis.html)

<sup>3</sup> [http://www.countrysideinfo.co.uk/woodland\\_manage/whatis.html](http://www.countrysideinfo.co.uk/woodland_manage/whatis.html)

**Tree Constraints and Root Protection Areas**

- 3.24 Below ground constraints to future development are represented by the area surrounding the tree containing sufficient rooting volume for the specimen to have the best chance of survival in the long term which is identified as the root protection area (RPA). The RPA has been calculated in accordance with section 4.6 of BS5837 and requires suitable protection in order for the tree to be successfully incorporated into any future scheme.
- 3.25 Where applicable the shape of the Root Protection Area has been modified to consider the presence of any nearby obstacles (existing or past) which may have restricted root growth and the likely root distribution i.e., the presence of hard standing, structures and underground apparatus.
- 3.26 Where groups of trees have been assessed, the Root Protection Area has been shown based on the maximum sized tree in any one group and so may exceed the Root Protection Area required for some of the individual specimens within the group. Further detailed inspection of the individual trees forming a group may be required where development impacts upon the group.
- 3.27 Above ground constraints such as the current crown spread of the trees and an illustration of the shade pattern (where appropriate) have been considered and identified within the Tree Survey Plan and Tree Retention Plan indicates their potential area of shading influence.

**Considerations and Limitations of the Tree Survey**

- 3.28 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.
- 3.29 The statements made in this report regarding defects in assessed trees does not take into account the effects of extreme / adverse weather conditions, changes in land use prior to the site's development as detailed within Section 4.0, unforeseen accidents or anti-social behaviors, such as vandalism, which occur since the date of the survey. As such, the assessment of tree condition given within applies to the date of survey and cannot be assumed to remain unchanged.
- 3.30 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.
- 3.31 It may be necessary during detailed design to undertake further assessment and accurate positioning of woody species within tree groups to assist structural calculations for foundation design of structures in accordance with current building regulations. Knowledge of soil type was not known at the time of this tree assessment. If a current soil survey of the site has taken place then it must be read in conjunction with the results of the tree survey.

- 3.32 The exact position of individual trees or species included as part of a tree group 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 in accordance with NHBC Chapter 4.2 Building near Trees.

## 4.0 RESULTS

- 4.1 Across the whole of the Normandy Fields development there is a total of 86 individual trees, 16 groups of trees and 19 hedgerows which were surveyed as part of the original Arboricultural Assessment although a number of these have been removed to facilitate the current residential development. Trees were surveyed as individual trees and groups of trees where examples are clearly present as per the description. Refer to the Tree Survey Plan and Appendix A – Tree Schedule for full details of the trees included in this assessment. The table below summarises the trees assessed.
- 4.2 Tree cover within the Phase 4 full application boundary has been discussed in more detail table 2 below.

**Table 1: Summary of Trees by Retention Category for the wider site**

|                                       | Individual Trees                                                                                                                                                                                                                                                     | Total | Groups of Trees                                                                            | Total |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------|-------|
| Category U – Unsuitable               | T10, T11, T14                                                                                                                                                                                                                                                        | 3     |                                                                                            | 0     |
| Category A (High Quality / Value)     | T13, T23, T26, T36, T41, T73                                                                                                                                                                                                                                         | 6     |                                                                                            | 0     |
| Category B (Moderate Quality / Value) | T9, T18, T20, T33, T37, T45, T47, T58, T61, T70, T74, T80                                                                                                                                                                                                            | 12    | G10, G12, G14, H2, H9, H10, H12, H13, H14, H18, H19                                        | 11    |
| Category C (Low Quality / Value)      | T1, T2, T3, T4, T5, T6, T7, T8, T12, T15, T16, T17, T22, T24, T25, T27, T28, T29, T30, T32, T34, T35, T39, T42, T43, T44, T46, T48, T49, T50, T51, T53, T54, T55, T56, T57, T59, T60, T64, T66, T67, T71, T72, T75, T76, T77, T78, T79, T81, T82, T83, T84, T85, T86 | 54    | G1, G2, G3, G4, G5, G6, G7, G9, G11, G13, G15, G16, H1, H3, H6, H7, H8, H11, H15, H16, H17 | 21    |

Table 2: Summary of Trees by Retention Category for Phase 4

|                                       | Individual Trees                | Total | Groups of Trees | Total |
|---------------------------------------|---------------------------------|-------|-----------------|-------|
| Category U – Unsuitable               |                                 | 0     |                 | 0     |
| Category A (High Quality / Value)     | T26                             | 1     |                 | 0     |
| Category B (Moderate Quality / Value) |                                 | 0     | H12, H13, H14   | 3     |
| Category C (Low Quality / Value)      | T1, T2, T24, T25, T27, T28, T64 | 7     | G6, H1, H6, H11 | 4     |

- 4.3 Tree cover was exclusive to the peripheries of the south easterly field parcel of Phase 4 and comprised of a both managed and outgrown hedgerows with seven individual trees and a single group. The vast majority of tree cover was situated along the northern and eastern boundaries, no tree cover was present to the south.
- 4.4 There was a single tree of high-quality (retention category A) and the vast majority of the individual tree cover was of low arboricultural quality (retention category C). The hedgerows assessed were almost evenly split between moderate and low arboricultural quality.

#### Category A Trees

- 4.5 T26 comprised of mature English oak, situated within the field boundary to the north west of phase 4 within the reserved matters part of the site. This tree was typical for the species and exhibited features associated with trees that have seen little or no past management.

#### Category B Hedgerows

- 4.6 All of the category B tree cover comprised of managed hedgerow material along the eastern boundary of phase 4. Recorded as H12, H13 & H14, these hedgerows had obtained a height of around 3m and have been annually cut by flail mowing to create a dense and consolidated structure. This tree cover provided a form of screening between the highway and the current development.

#### Category C Trees

- 4.7 Seven individual trees and a single group of trees were assigned to retention category C due to their poor or compromised structural and/or physiological condition. T1, T2, T24, T27, T28 and T64 were ash of various ages with T25 being a mature goat willow *Salix caprea*. G6 comprised of blackthorn *Prunus spinosa* and hawthorn *Crataegus monogyna* thicket growth. These were situated along the site's northern and western boundaries.
- 4.8 H1, H6 and H11 comprise of small sections of isolated hedgerows situated along the field ditches. These have seen little in past management and are considered to be low in quality.

**Ancient and Veteran Trees**

- 4.9 None of the assessed trees were considered as ancient or veteran trees in accordance with accepted methodologies and guidance.

**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 Hinckley West (phase 4) Planning Layout drwg no. n1787 F-008 Rev B and drwg no. n1787 RM-008 Rev B and seeks to outline the relationship between the proposals and the existing trees and hedgerows. The drawing shows the proposal for a combined total of 250 dwellings with access and associated infrastructure. 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.
- 5.3 Given the peripheral positions of the tree cover across the site, it is possible to retain all of the tree cover and incorporate the trees into the new development proposals.

**Vehicular access**

- 5.4 Access will be gained with the continuation of road network to the north and a new point of access to the south. No tree cover will be impacted on by the points of access.

**Retained trees**

- 5.5 The proposals have been configured in such a way as to allow for the retention of all of the individual trees surrounding Phase 4. All boundary tree cover is to be retained in established outgrown hedgerows with the occasional mature individual tree. The retention and management of these features will preserve these effective screens to the site. New tree planting across the Phase 4 development will also enhance these features.
- 5.6 The only loss of tree cover within the Phase 4 boundary will be a small section of hedgerow adjacent to Plot 1 to allow a footpath link.

**Tree Management**

- 5.7 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 in order to satisfy the landowner's duty of care. Additionally, inspections annually and following major storms should be carried out by an experienced arboriculturalist or arborist to identify any potential public safety risks and to agree remedial works as required.

- 5.8 All tree works undertaken should comply with British Standard 3998:2010 and should therefore be carried out by skilled tree surgeons. It would be recommended that quotations for such work be obtained from Arboricultural Association Approved Contractors as this is the recognised authority for certification of tree work contractors.
- 5.9 All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the bird-breeding season (March - September inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds prior to removal by an experienced ecologist.

## **6.0 NEW TREE AND HEDGEROW PLANTING**

- 6.1 As part of the development proposals an adequate quantity of structured tree planting has been demonstrated predominantly within or close to hard landscaped areas of car parking or alongside the primary access roads within the roadside verges. 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.

### **Trees**

- 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 on the basis of their suitability for the final site use. Furthermore, during the design process consultation should be made with the Local Planning Authority to obtain information on their tree strategy and incorporate the planting proposals with any local policies and initiatives and/or Biodiversity Action Plans (BAP).
- 6.3 In line with the NPPF all schemes should aim to achieve a net gain in biodiversity value. Nationally recognised biodiversity metrics allow for the inclusion of, not limited to, newly planted scattered trees, woodlands and hedgerows as a means of compensating for loss of habitat as part of the development. Tree and shrub planting can therefore be used to contribute to this biodiversity gain.
- 6.4 To maximise biodiversity value (and contribution to net gain) native species or varieties should be specified. Such provisions can be incorporated into both the hard and soft landscaping of the scheme. It is recommended that tree and hedgerow specifications are made following consultation with guidance published by the Local Planning Authority.
- 6.5 When designing upon suitable tree species, careful consideration would need to be given to the following: ultimate height and canopy spread, form, habit, density of crown, potential shading effect, colour, water demand, soil type and maintenance requirements in relation to both the built form of the new development and existing properties.

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

### **Hedgerows**

- 6.7 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.
- 6.8 Recommended species for native hedgerow planting are as follows:

- *Crataegus monogyna*
- *Prunus spinosa*
- *Cornus sanguinea*
- *Corylus avellana*
- *Acer campestre*
- *Quercus robur*
- *Euonymus europaeus*

### **General Planting Recommendations**

- 6.9 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.
- 6.10 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 ARBORICULTURAL METHOD STATEMENT

- 7.1 This Arboricultural Method Statement (AMS) has been prepared by FPCR Environment and Design Limited on behalf of Bloor Homes East Midlands to provide the methods of protection and pruning requirements for retained trees located at Phase 4, Hollycroft Grange, Hinckley, (hereafter referred to as 'the site').
- 7.2 This AMS outlines the methodology by which construction will be undertaken in order to safeguard trees during the construction of proposed development. This method statement sets out a definitive account for the treatment of retained trees during construction and specifies industry approved construction methods.
- 7.3 The detail and requirements of this Method Statement comprise commitments to complete the construction phase of the development in a specific manner and will inform the production of all relevant tender documents and instructions to contractors.
- 7.4 **Failure to adhere to the correct sequence, manner and timing of operations detailed in this Method Statement may result in irremediable damage to trees or disturbance to retained tree cover. Retained trees are protected by planning law and reckless damage or tree removal could result in the serving of a stop notice or prosecution by the Local Planning Authority.**

### **Planning Consent**

- 7.5 This AMS sets out the methodology for all proposed works that affect trees on the site. Compliance with this AMS, once approved by the Local Planning Authorities (LPA) Arboricultural Officer, will be a requirement of all relevant contractors associated with the development proposals.

### **Limitations**

- 7.6 The Method Statement is concerned solely with arboricultural issues related to the site referenced only.
- 7.7 Any changes in ground level, or excavations near to tree roots not detailed within this AMS has the potential of adversely affecting the stability and physical condition of the retained trees and as such further examinations would be required.

## 8.0 TREE PROTECTION REQUIREMENTS

### Specific Requirements

- 8.1 The following table provides a summary of the specific requirements of the AMS and how evidence of its action shall be provided.

**Table 3: Requirements and Evidence of Action**

| Reference                                                           | Evidence of Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Updated Tree Schedule, Tree Survey Plans and Retention Plans        | A tabulated Tree Schedule has been provided as Appendix A of this AMS and details species; height; canopy spread; stem diameter; age class and overall condition / health. This has been used to formulate positioning of fencing and to assess the need for any facilitation pruning. An updated Tree Survey and Retention plan/s have been provided in the Impact Assessment which has been supplied alongside this AMS.                                                                                                                                                                                                                                                                                                         |
| Tree Protection details in the form of a Tree Protection Plan (TPP) | <p>A series of Tree Protection Plans have been produced and accompany the AMS. The plans show:</p> <ul style="list-style-type: none"> <li>• Trees to be retained (green)</li> <li>• Tree Groups to be retained (green stripe hatch)</li> <li>• Hedgerow to be retained (solid green line)</li> <li>• Hedgerow to be removed (solid red line)</li> <li>• Extent of calculated Root Protection Areas (blue circle)</li> <li>• Overlaid development proposals for reference</li> <li>• The position of Primary / Fixed Tree Protection fencing (pink line)</li> <li>• Measurements and Annotations for ease of interpretation (pink text)</li> </ul> <p>The Tree Protection Plans have been annotated for ease of interpretation.</p> |
| Tree protection prior to / during construction as indicated on TPP  | <p>Specific Tree Protection Plans produced for the construction works (drwg.no. 7535-T-05).</p> <p>Tree Protection erected to specification – dimensions shown on plans and specification shown in Appendix C2. Protective Fencing Signage (Appendix B) to be firmly affixed to fencing.</p> <p>Pre-commencement site meeting, toolbox talks, periodic site supervision and reporting shall be carried out to ensure compliance.</p>                                                                                                                                                                                                                                                                                               |

## General Requirements

- 8.2 This AMS, the appended Task Specific Method Statements and accompanying Tree Protection Plans should be reproduced in their entirety in colour and copies should be kept on file in the site office for reference.
- 8.3 The relevant contractors should be provided any Task Specific Method Statements appended as part of this AMS, where relevant to their work.
- 8.4 The Site Manager will read this AMS. It will be the responsibility of the Site Manager to ensure its compliance throughout the construction processes.
- 8.5 All operations will be monitored by the Site Manager, and they will be responsible for ensuring that any sub-contractors do not carry out any process or operation which is likely to impact adversely upon any retained tree or hedge.
- 8.6 The contractor carrying out each task specific to their work shall be responsible for ensuring the AMS is adhered to at all times, The Site Manager is to ensure there is a monitoring regime for the maintenance of tree protection adopted on site.

## 9.0 TREE PROTECTION METHODOLOGY

### Pre-commencement Tree Work

- 9.1 All agreed works will need to be undertaken prior to the main construction activities commencing and so that tree protection fencing can be erected in the positions demonstrated on the Tree Protection Plans.
- 9.2 Appendix C1 outlines all the required pre-commencement tree work. Those trees which will be removed to facilitate the approved development layout are not detailed within the appendix.
- 9.3 All tree works undertaken will comply with *British Standard 3998 'Tree Work - Recommendations' (2010)* and be carried out by skilled tree surgeons preferably those approved by the Arboricultural Association (AA). The AA is the recognised authority for certification of tree work contractors. To become an Approved Contractor a company must satisfy the Associations Professional Committee of its consistently high standard of tree work.

All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the bird-breeding season (March - September inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds prior to removal by an experienced ecologist.

**Tree Protection Programme – Construction Phase**

- 9.4 The key stages where tree protection are to be implemented along with the requirements for site supervision have been outlined in the following sections and within the relevant tables.
- 9.5 The timing of these stages may be subject to alteration in line with any future amendments of the construction program and as such, it is important to emphasise that the timeframe is designed to be flexible to accommodate these alterations whilst ensuring the protection of the trees on site.

**Table 4: Timelines of Tree Protection for Construction Works**

| Timetable                            | Actions                                                                                                                                                                                                               | Arboricultural Clerk of Works (ACoW) requirements                                                                                                                                                                                                                                                                                                                                                                                                      | Task Specific Method Statement / Appendix reference                                                                                                   |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-commencement site meeting        | <p>Pre-commencement site meeting prior to the start of construction works on site including earthworks.</p> <p>Timeline of construction processes to be shared with ACoW and changes made to the AMS as required.</p> | <p>Site meeting / Toolbox talk by ACoW (refer to Section 9.7) to ensure that the AMS has been read by the relevant person, including the Site Manager and Tree Surgeon. Site Manager to provide working Gantt Chart or Timetable of construction processes and to ensure that Tree Protection measures have been included.</p> <p>ACoW to check that copies of Task Specific Arboricultural Method Statements (located in Appendix C) are present.</p> | <p>7535-T-01<br/>7535-T-02<br/>7535-T-03<br/>7535-T-04<br/>7535-T-05<br/>Appendix A<br/>Appendix B<br/>Appendix C1<br/>Appendix C2<br/>Appendix D</p> |
| During Pre-commencement site meeting | Temporary and Permanent Tree Protection Fencing positions to be marked out and pegged (where applicable) by the ACoW to ensure that all fencing is erected in the correct positions.                                  | ACoW to assist with measuring out distances from trees in accordance with the Tree Protection Plans. Photos of evidence to be taken for auditing purposes.                                                                                                                                                                                                                                                                                             | 7535-T-05<br>Appendix A<br>Appendix C2                                                                                                                |
| <b>Commence Development</b>          |                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                       |
| <b>Construction Works Commence</b>   |                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                       |

| Timetable                                | Actions                                                                                                                                                                                         | Arboricultural Clerk of Works (ACoW) requirements                                                                                     | Task Specific Method Statement / Appendix reference |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Dates in line with construction program  | Periodic compliance inspections accompanied by robust auditing of visits.<br><br>Tree Protective Fencing position and suitability checked by ACoW.<br>Compliance with AMS checked and recorded. | Record of visit to be completed by ACoW and a copy is to be handed to Site Manager and LPA upon request.                              | Tablet based Auditing App (ACoW use only)           |
| <b>Construction Works Completed</b>      |                                                                                                                                                                                                 |                                                                                                                                       |                                                     |
| <b>Post Construction</b>                 |                                                                                                                                                                                                 |                                                                                                                                       |                                                     |
| Dates in line with construction program  | Removal of Tree Protective Fencing                                                                                                                                                              | ACoW to check if all Tree Protective Fencing has been removed and in doing so no damage has occurred to retained trees and hedgerows. |                                                     |
| <b>Tree Protection Program Completed</b> |                                                                                                                                                                                                 |                                                                                                                                       |                                                     |

## Arboricultural Supervision

### Appointment of Arboricultural Clerk of Works

- 9.6 The Site Manager / Project Manager will be responsible for appointing the Arboricultural Clerk of Works in advance of any operations detailed in this Method Statement and in any instance where full compliance cannot be guaranteed i.e., where construction works within areas fenced off to protect trees may be required.

#### FPCR Arboricultural Consultant Contact Details

**FPCR Arboricultural Consultant:** Tom Bennett

**Contact Email:** [Tom.bennett@fpcr.co.uk](mailto:Tom.bennett@fpcr.co.uk)

**Contact Number:** 01509 672772 / 07957641779

- 9.7 An overview of the specific involvement of the Arboricultural Clerk of Works has been provided in Tables 1 and 2.
- 9.8 An initial site meeting prior to starting any construction works, implementing tree surgery and erection of tree protection fencing, shall be a requirement of this AMS. At the meeting the Site Manager and Arboricultural Clerk of Works will discuss the methodology and various tree protection measures to be implemented subject to approval by the LPA.

- 9.9 A toolbox talk will also be given to the Site Manager and any on site operatives on the day of the meeting. The purpose of this toolbox talk will be to inform the Site Manager and Operatives of how to protect all retained trees. The toolbox talk shall then be repeated by the Site Manager when new external trades / Contractors commence work on site.
- 9.10 The toolbox talk shall focus on informing Contractors on the following topics:
- The protection of trees is a requirement of planning approval and failure to comply could result in stop notices being applied or fines;
  - How trees can be harmed on development sites;
  - How the trees on this site will be protected by tree protection fencing and ground protection;
  - Discussion on particular methods of working near the trees as outlined in this Method Statement;
  - How to report an issue before it becomes a problem;
- 9.11 Evidence of the toolbox being carried out shall be collected. This evidence can be viewed at any time by the Arboricultural Clerk of Works and shared with both the client and the LPA upon request. A periodic review shall be conducted to ensure continued compliance.
- 9.12 The Arboricultural Clerk of Works will periodically verify compliance with this AMS and sign-off elements of the work as various stages of the development commence. This shall be recorded using an online form which the Arboricultural Clerk of Works can share with the client and LPA.
- 9.13 The Arboricultural Clerk of Works will be responsible for specifying any tree work requirements and shall assist in, where required, the appointment of a suitably qualified Arboricultural Contractor to undertake the removal and pruning of trees.

#### **Key Appointment, Supervision and Monitoring Stages of the Arboricultural Clerk of Works**

- 9.14 The following stages of supervision shall be required:
- Pre-commencement site meeting and Toolbox talk to be carried out.
  - Marking trees to be removed and to be pruned with the appointed tree contractor where relevant (**pre-commencement meeting**)
  - Walking the site with the Site Manager / Fencing Contractor to measure out the locations of the fencing (**pre-commencement meeting**)
  - Full auditing of these visits / supervision requirements to be carried out (**ongoing**)
  - Ongoing visits in accordance with Table 2 to inspect the tree protection fencing and compliance with the AMS. Any other arboricultural matters arising which are unforeseen will need to be discussed with the Arboricultural Clerk of Works during these visits to decide the most appropriate course of action.

After each site visit a short report/record will be compiled which will be sent to the client and local authority upon request as a record of evidence.

### Specific Tree Protection Measures

- 9.15 For each of the works required a Task Specific Method Statement has been provided outlining the action required. These Method Statements have been provided in chronological order and have been produced as 'pull out' sheets to be kept on record in the site office and handed to the appropriate contractors during site inductions.
- 9.16 The methodologies accompanying this AMS have been provided as separately titled appendices for ease of identification. These include:
- Appendix C1: Tree Contractor - Tree Work Methodology
  - Appendix C2: Fencing Contractor – Working Methodology

### General Tree Protection Measures

- 9.17 This section details non-specific precautionary measures to be applied at all times.
- 9.18 No trees will be removed or pruned during construction other than those detailed within this method statement. Any proposed deviation from the tree removal and retention presented in this document must be discussed with the project Arboricultural Consultant prior to implementation.
- 9.19 All the retained trees will need to be adequately protected during works. Measures to protect these trees should follow the best practice principles set out in *BS5837: Trees in Relation to Construction Recommendations (2012)*. These have been broadly summarised below.
- 9.20 No Root Protection Areas will be affected by excavation works, storage of materials, plant or machine access, other than as described by this Method Statement.
- 9.21 Site compounds, Portakabins, Containers and other temporary buildings can in some cases be used in root protection area if prior consent is agreed by the acting local planning authority. The method for installing the buildings and an assessment of whether temporary ground protection is required is to be agreed with the project Arboriculturalist and specified prior to installation.
- 9.22 No materials or soils are to be stored within the Root Protection Area of the retained trees.
- 9.23 Oil, bitumen, cement or other material that is potentially injurious to trees will not be stacked or discharged within 10m of a tree stem. No concrete mixing will be done within 10m of a tree. Allowance will be made for the slope of ground to prevent materials running towards the tree.
- 9.24 Wide or tall loads etc. should not come into contact with retained trees. Banks man should supervise transit of vehicles where they are in close proximity to retained trees.
- 9.25 No fires will be lit where flames are anticipated to extend to within 5m of tree foliage, branches or trunk, taking into consideration wind direction and size of fire.
- 9.26 Notice boards, telephone cables or other services will not be attached to any part of a retained tree.

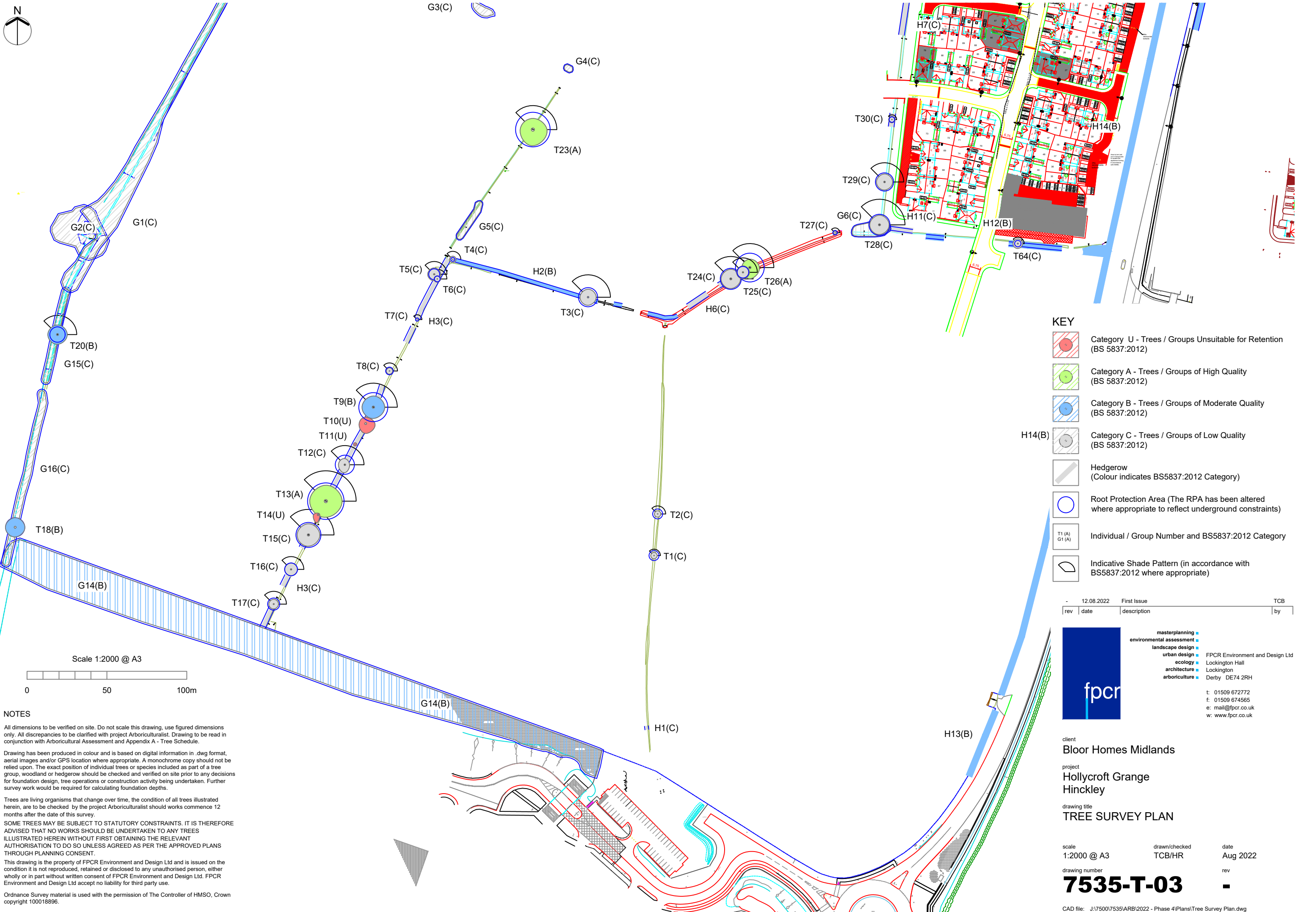
- 9.27 If unexpected large roots (>25mm diameter) are encountered during excavation for construction works the arboricultural consultant should be contacted immediately. No exposed roots will be left uncovered. They will be covered over as soon as possible to minimise the risk of drying out and dying.
- 9.28 As recommended within section 8.8.3 of BS5837 Post Development Management of Existing Trees, all retained trees should be subjected to sound arboricultural management where there is public access in order to satisfy the landowner's duty of care.

**Removal of Tree Protection Measures and Protective Fencing**

- 9.29 Following the completion of all construction works and in agreement with the project arboriculturist the tree protection fencing will be removed carefully as to avoid causing root disturbance.







**KEY**

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

| rev | date       | description | by  |
|-----|------------|-------------|-----|
| -   | 12.08.2022 | First Issue | TCB |

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**NOTES**

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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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client  
**Bloor Homes Midlands**

project  
**Hollycroft Grange  
Hinckley**

drawing title  
**TREE SURVEY PLAN**

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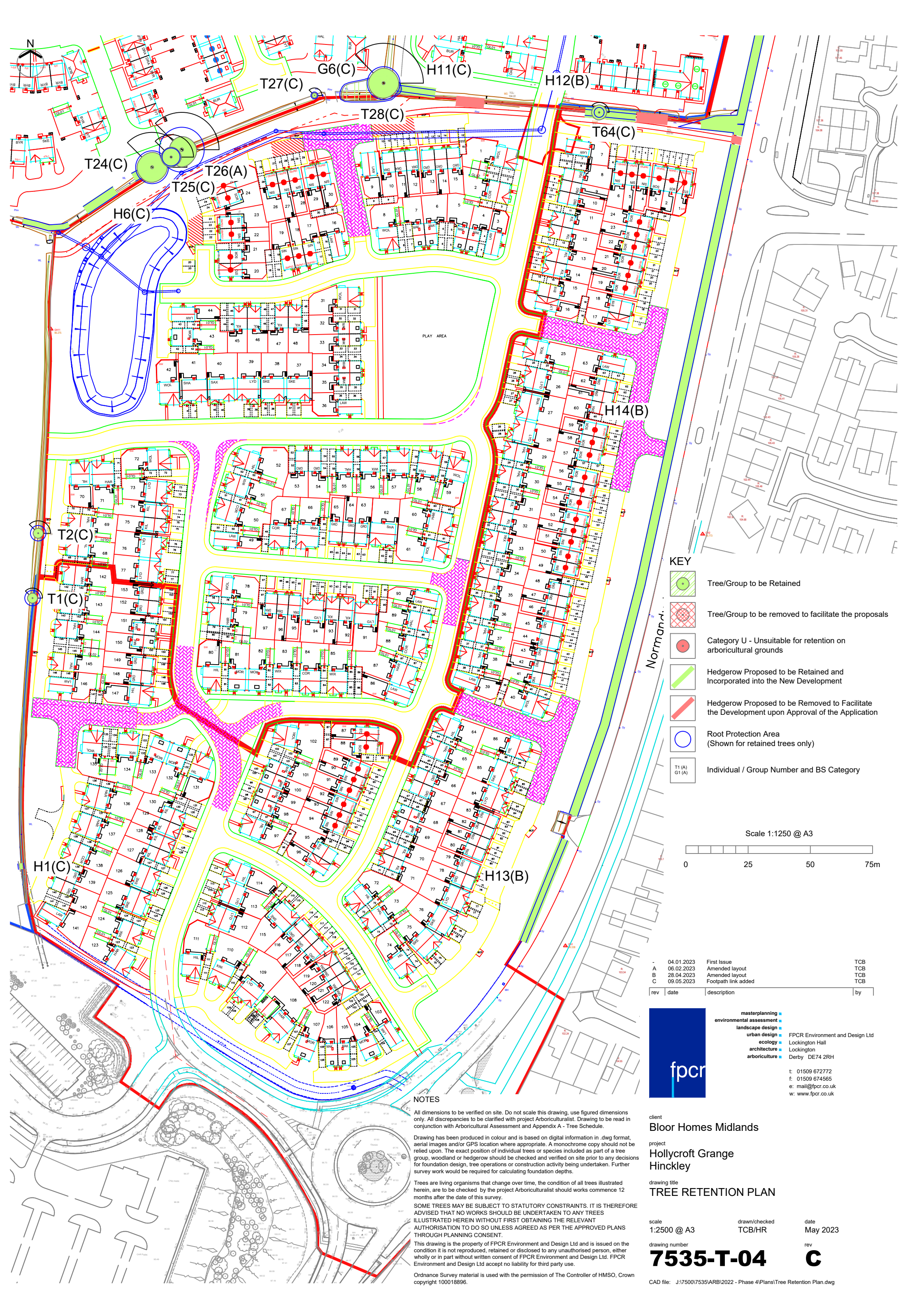
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date  
Aug 2022

drawing number  
**7535-T-03**

rev  
-

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- KEY**
- Tree/Group to be Retained
  - Tree/Group to be removed to facilitate the proposals
  - Category U - Unsuitable for retention on arboricultural grounds
  - Hedgerow Proposed to be Retained and Incorporated into the New Development
  - Hedgerow Proposed to be Removed to Facilitate the Development upon Approval of the Application
  - Root Protection Area (Shown for retained trees only)
  - Individual / Group Number and BS Category

Scale 1:1250 @ A3



|     |            |                     |     |
|-----|------------|---------------------|-----|
| -   | 04.01.2023 | First Issue         | TCB |
| A   | 06.02.2023 | Amended layout      | TCB |
| B   | 28.04.2023 | Amended layout      | TCB |
| C   | 09.05.2023 | Footpath link added | TCB |
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**Bloor Homes Midlands**

project  
**Hollycroft Grange  
Hinckley**

drawing title  
**TREE RETENTION PLAN**

scale  
1:2500 @ A3

drawn/checked  
TCB/HR

date  
May 2023

drawing number  
**7535-T-04**

rev  
**C**

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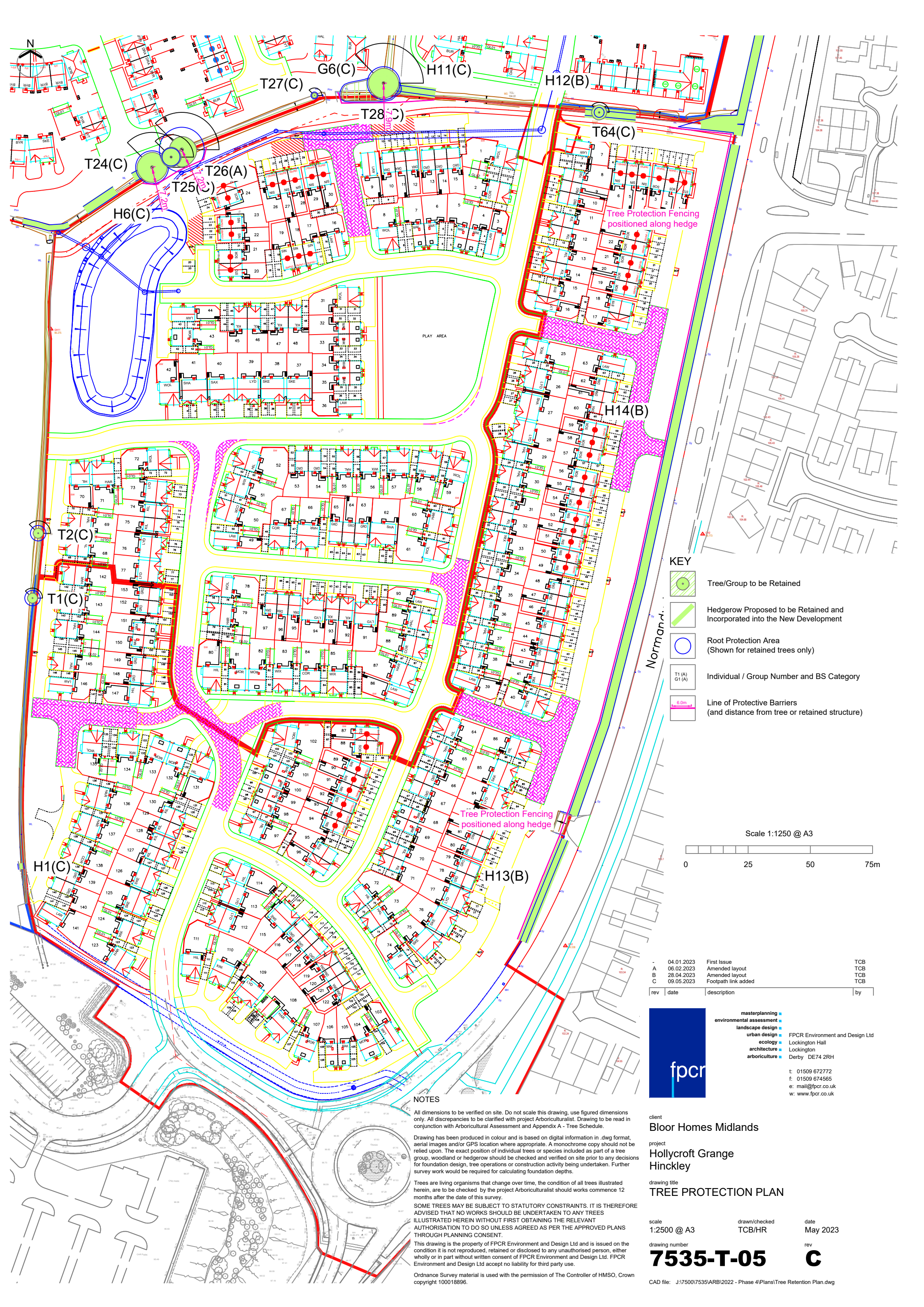
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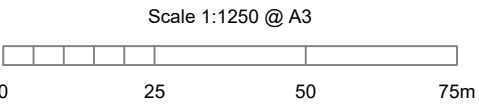


KEY

Tree/Group to be Retained

Hedgerow Proposed to be Retained and Incorporated into the New Development

T1 (A)  
G1 (A)

Individual / Group Number and BS Category  
6.0m

|     |            |                     |     |
|-----|------------|---------------------|-----|
| -   | 04.01.2023 | First Issue         | TCB |
| A   | 06.02.2023 | Amended layout      | TCB |
| B   | 28.04.2023 | Amended layout      | TCB |
| C   | 09.05.2023 | Footpath link added | TCB |
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Hollycroft Grange  
Hinckley

drawing title  
TREE PROTECTION PLAN

scale  
1:2500 @ A3

drawn/checked  
TCB/HR

date  
May 2023

drawing number  
**7535-T-05**

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**C**

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## Appendix A - Tree Schedule

| Measurements                                                                                                                                           | Age Classes                                                                                                                                                                                                                               | Quality Assessment of BS Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ULE (relates to BS Category) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>Height</b> - Measured using a digital laser clinometer (m)                                                                                          | <b>YNG:</b> Establishing, typically with good vigour and fast growth rates and strong apical dominance; c. less than 1/3 life expectancy                                                                                                  | <b>Category U</b> - 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                    |
| <b>Stem Dia.</b> - Diameter measured (mm) in accordance with Annex C of the BS5837                                                                     | <b>SM:</b> Semi-mature trees less than 1/3 life expectancy                                                                                                                                                                                | <b>Category A</b> - Trees of high quality with an estimated remaining life expectancy of at least 40 years.                                                                                                                                                                                                                                                                                                                                                                                                    | 40+ years                    |
| <b>Crown Radius</b> - Measured using a digital laser clinometer radially from the main stem (m)                                                        | <b>EM:</b> Established, typically vigorous and increasing in apical height and lateral spread; 1/3 - 2/3 life expectancy. Offers landscape significance                                                                                   | <b>Category B</b> - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.                                                                                                                                                                                                                                                                                                                                                                                                | 20-40 years                  |
| <b>Abbreviations</b><br><br>est - Estimated stem diameter<br>avg - Average stem diameter for multiple stems<br>upto - Maximum stem diameter of a group | <b>M:</b> Fully established over 2/3 life expectancy, generally good vigour and achieving full height potential with crown still spreading                                                                                                | <b>Category C</b> - 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                  |
|                                                                                                                                                        | <b>OM:</b> Fully mature, at the extremes of expected life expectancy, vigour decreasing, declining or moribund                                                                                                                            | Sub-categories: (i) - Mainly arboricultural value<br>(ii) - Mainly landscape value<br>(iii) - Mainly cultural or conservation value                                                                                                                                                                                                                                                                                                                                                                            |                              |
|                                                                                                                                                        | <b>V:</b> 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. | <b>The BS category particular consideration has been given to the following:</b> <ul style="list-style-type: none"> <li>• The presence of any structural defects in each tree/group and its future life expectancy</li> <li>• The size and form of each tree/group and its suitability within the context of a proposed development</li> <li>• The location of each tree relative to existing site features e.g. its screening value or landscape features</li> <li>• Age class and life expectancy</li> </ul> |                              |

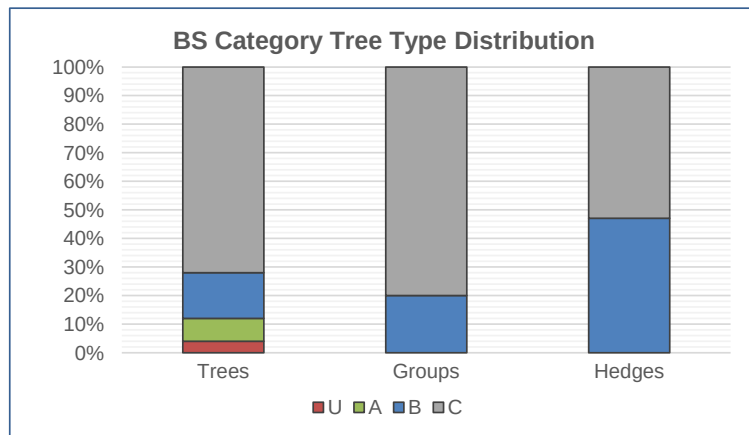
| Structural Condition                                                                                      | Physiological Condition                                                                    |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>Good</b> - No significant structural defects                                                           | <b>Good</b> - No significant health problems                                               |
| <b>Fair</b> - Structural defects that can be remediated                                                   | <b>Fair</b> - Symptoms of ill-health that can be remediated                                |
| <b>Poor</b> - Significant defects beyond remediation, present a risk of failure in the foreseeable future | <b>Poor</b> - Significant ill-health. Unlikely the tree will recover in the long term      |
| <b>Dead</b> - Dead tree with structural integrity of tree severely compromised                            | <b>Advanced Decline / Dead</b> - Advanced state of decline and unlikely to recover or Dead |

| Root Protection Area (RPA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m).</li> <li>• 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.</li> <li>• Where veteran trees have been identified the RPA has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter, uncapped.</li> </ul> |

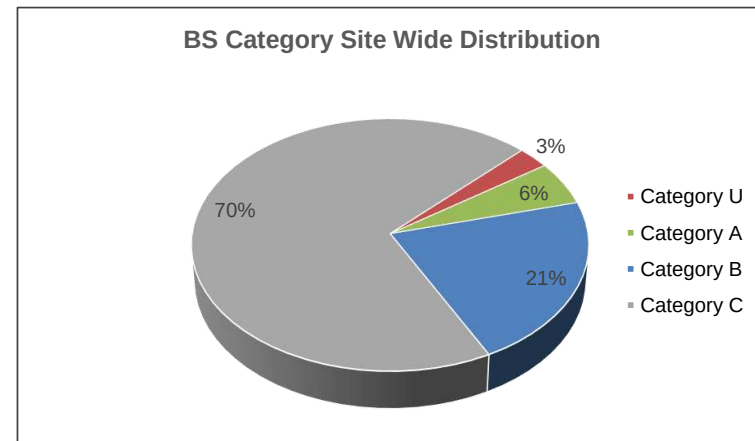
**Appendix Summary**

|            | Individual Trees                                                                                                                                                                                                                                                     | Totals | Tree Groups and Hedgerows                                                                  | Totals |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------------------------------------------------------------------------------|--------|
| Category U | T10, T11, T14                                                                                                                                                                                                                                                        | 3      |                                                                                            | 0      |
| Category A | T13, T23, T26, T36, T41, T73                                                                                                                                                                                                                                         | 6      |                                                                                            | 0      |
| Category B | T9, T18, T20, T33, T37, T45, T47, T58, T61, T70, T74, T80                                                                                                                                                                                                            | 12     | G10, G12, G14, H2, H9, H10, H12, H13, H14, H18, H19                                        | 11     |
| Category C | T1, T2, T3, T4, T5, T6, T7, T8, T12, T15, T16, T17, T22, T24, T25, T27, T28, T29, T30, T32, T34, T35, T39, T42, T43, T44, T46, T48, T49, T50, T51, T53, T54, T55, T56, T57, T59, T60, T64, T66, T67, T71, T72, T75, T76, T77, T78, T79, T81, T82, T83, T84, T85, T86 | 54     | G1, G2, G3, G4, G5, G6, G7, G9, G11, G13, G15, G16, H1, H3, H6, H7, H8, H11, H15, H16, H17 | 21     |
| Total      |                                                                                                                                                                                                                                                                      | 75     | Total                                                                                      | 32     |

**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 |
|-------------------------|-------------------------------|--------|---------------------------------|--------------|-----------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| <b>INDIVIDUAL TREES</b> |                               |        |                                 |              |           |                   |                                                                                                                                                                                                          |     |            |            |
| T1                      | Ash<br>Fraxinus excelsior     | 4      | est<br>150<br>150<br>150        | 2            | EM        | F                 | Crossing and rubbing branches<br>Flail damage evident<br>Multi stemmed from base<br>Sporadic self-seeded group of trees                                                                                  | 31  | 3.1        | C (i)      |
| T2                      | Ash<br>Fraxinus excelsior     | 5      | est<br>150<br>150<br>150        | 2            | EM        | F                 | Crossing and rubbing branches<br>Flail damage evident<br>Multi stemmed from base<br>Sporadic self-seeded group of trees                                                                                  | 31  | 3.1        | C (i)      |
| T3                      | Ash<br>Fraxinus excelsior     | 14     | est<br>500                      | 5            | EM        | F                 | Basal suckers present<br>Base obscured<br>Branch stubs evident<br>Broken branches evident<br>Flail damage evident<br>Minor dead wood evident in the crown (<75mm)<br>Inonotus hispidus<br>Shaggy bracket | 113 | 6.0        | C (i)      |
| T4                      | Ash<br>Fraxinus excelsior     | 5      | est<br>100                      | 2            | SM        | F                 | Base obscured<br>Crossing and rubbing branches<br>Flail damage evident<br>Minor dead wood evident in the crown (<75mm)                                                                                   | 5   | 1.2        | C (i)      |
| T5                      | Field Maple<br>Acer campestre | 8      | est<br>200<br>200               | 4            | SM        | F                 | Base obscured<br>Crossing and rubbing branches<br>Flail damage evident<br>Minor dead wood evident in the crown (<75mm)<br>Multi stemmed from base                                                        | 36  | 3.4        | C (i)      |
| T6                      | Ash<br>Fraxinus excelsior     | 6      | 150                             | 2            | SM        | F                 | Suppressed crown form                                                                                                                                                                                    | 10  | 1.8        | C (i)      |
| T7                      | English Oak<br>Quercus robur  | 3      | 80                              | 1            | Yng       | F                 | Sapling                                                                                                                                                                                                  | 3   | 1.0        | C (i)      |
| T8                      | Field Maple<br>Acer campestre | 5      | est<br>100<br>100<br>100<br>100 | 2            | EM        | F                 | Multi stemmed from base                                                                                                                                                                                  | 18  | 2.4        | C (i)      |

| Tree No | Species                       | Height | Stem Dia.                       | Crown Radius                     | Age Class | Overall Condition | Structural Condition                                                                                                                                                                                                            | RPA | RPA Radius | BS5837 Cat |
|---------|-------------------------------|--------|---------------------------------|----------------------------------|-----------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| T9      | English Oak<br>Quercus robur  | 15     | 760                             | 7                                | M         | F                 | Bark wounds noted<br>Base obscured<br>Branch stubs evident<br>Broken branches evident<br>Epicormic growth evident within the crown<br>Flail damage evident                                                                      | 261 | 9.1        | B (i)      |
| T10     | Ash<br>Fraxinus excelsior     | 11     | 450                             | N - 4<br>S - 6<br>E - 6<br>W - 4 | M         | P                 | Dieback of the crown observed<br>Major dead wood evident in the crown (>75mm)<br>Minor dead wood evident in the crown (<75mm)<br>Woodpecker holes observed<br>Stem cavities present<br>Inonotus hispidus Shaggy bracket presnet | N/A | N/A        | U          |
| T11     | Ash<br>Fraxinus excelsior     | 7      | 300                             | 1                                | EM        | P                 | Stump regrowth                                                                                                                                                                                                                  | N/A | N/A        | U          |
| T12     | Ash<br>Fraxinus excelsior     | 12     | 500                             | N - 4<br>S - 5<br>E - 3<br>W - 4 | M         | F                 | Crossing and rubbing branches<br>Minor dead wood evident in the crown (<75mm)<br>Sparse crown<br>Inonotus hispidus Shaggy bracket present                                                                                       | 113 | 6.0        | C (i)      |
| T13     | English Oak<br>Quercus robur  | 19     | est<br>950                      | 10                               | M         | G                 | Branch stubs evident<br>Epicormic growth evident within the crown<br>Minor dead wood evident in the crown (<75mm)<br>No major defects were noted<br>Pruning wounds noted                                                        | 408 | 11.4       | A (i)      |
| T14     | Ash<br>Fraxinus excelsior     | 10     | Over ivy<br>540                 | N - 0<br>S - 5<br>E - 1<br>W - 3 | M         | P                 | Branch stubs evident<br>Broken branches evident<br>Epicormic growth evident within the crown<br>Regrowth from storm damage with advanced decay                                                                                  | N/A | N/A        | U          |
| T15     | English Oak<br>Quercus robur  | 16     | est<br>650                      | 7                                | M         | P                 | Major dead wood evident in the crown (>75mm)<br>Multiple failure in crown<br>Cavity to West side with cracking at 9m                                                                                                            | 191 | 7.8        | C (i)      |
| T16     | Field Maple<br>Acer campestre | 8      | 150<br>150<br>150<br>150<br>150 | 4                                | EM        | F                 | Crossing and rubbing branches<br>Multi stemmed from base                                                                                                                                                                        | 51  | 4.0        | C (i)      |

| Tree No | Species                       | Height | Stem Dia.                       | Crown Radius                      | Age Class | Overall Condition | Structural Condition                                                                                                                                                                                                                           | RPA | RPA Radius | BS5837 Cat |
|---------|-------------------------------|--------|---------------------------------|-----------------------------------|-----------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| T17     | Field Maple<br>Acer campestre | 8      | avg<br>160<br>160<br>160<br>160 | 3                                 | EM        | F                 | Base obscured<br>Multi stemmed from base                                                                                                                                                                                                       | 46  | 3.8        | C (i)      |
| T18     | English Oak<br>Quercus robur  | 9      | est<br>500                      | 6                                 | EM        | F                 | Base obscured<br>Branch stubs evident<br>Close cultivation of the soil<br>Dense undergrowth at the base<br>Epicormic growth evident within the crown<br>Flail damage evident<br>Low crown form<br>Minor dead wood evident in the crown (<75mm) | 113 | 6.0        | B (i)      |
| T19     | Within boundary group         |        |                                 |                                   |           |                   |                                                                                                                                                                                                                                                |     |            |            |
| T20     | English Oak<br>Quercus robur  | 12     | est<br>400                      | 6                                 | EM        | F                 | Base obscured<br>Branch stubs evident<br>Close cultivation of the soil<br>Dense undergrowth at the base<br>Epicormic growth evident within the crown<br>Flail damage evident<br>Low crown form<br>Minor dead wood evident in the crown (<75mm) | 72  | 4.8        | B (i)      |
| T21     | Within boundary group         |        |                                 |                                   |           |                   |                                                                                                                                                                                                                                                |     |            |            |
| T22     | Ash<br>Fraxinus excelsior     | 12     | 250<br>250<br>250<br>250<br>250 | 6                                 | EM        | F                 | Base obscured<br>Dense undergrowth at the base<br>Multi stemmed from base                                                                                                                                                                      | 141 | 6.7        | C (i)      |
| T23     | English Oak<br>Quercus robur  | 15     | est<br>900                      | N - 7<br>S - 10<br>E - 9<br>W - 8 | M         | G                 | Branch stubs evident<br>Broken branches evident<br>Epicormic growth evident within the crown<br>Flail damage evident<br>Minor dead wood evident in the crown (<75mm)<br>No major defects were noted<br>Typical crown form                      | 366 | 10.8       | A (i)      |

| Tree No | Species                                  | Height | Stem Dia.                       | Crown Radius                     | Age Class | Overall Condition | Structural Condition                                                                                                                                                                                                   | RPA | RPA Radius | BS5837 Cat |
|---------|------------------------------------------|--------|---------------------------------|----------------------------------|-----------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| T24     | Ash<br>Fraxinus excelsior                | 14     | 550                             | 6                                | M         | P                 | Basal suckers present<br>Dieback of the crown observed<br>Major dead wood evident in the crown (>75mm)                                                                                                                 | 137 | 6.6        | C (i)      |
| T25     | Goat Willow<br>Salix caprea              | 9      | avg<br>150<br>150<br>150<br>150 | 4                                | EM        | F                 | Multi stemmed from base                                                                                                                                                                                                | 41  | 3.6        | C (i)      |
| T26     | English Oak<br>Quercus robur             | 15     | 750                             | N - 5<br>S - 7<br>E - 6<br>W - 5 | M         | G                 | Base obscured<br>Branch stubs evident<br>Broken branches evident<br>Dense undergrowth at the base<br>Epicormic growth evident within the crown<br>Flail damage evident<br>Minor dead wood evident in the crown (<75mm) | 254 | 9.0        | A (i)      |
| T27     | Ash<br>Fraxinus excelsior                | 3      | 120                             | 1                                | Yng       | F                 | Branch stubs evident<br>Flail damage evident                                                                                                                                                                           | 7   | 1.4        | C (i)      |
| T28     | Ash<br>Fraxinus excelsior                | 16     | est<br>550                      | 6                                | M         | F                 | Base obscured<br>Dense undergrowth at the base<br>Minor dead wood evident in the crown (<75mm)<br>Sparse crown                                                                                                         | 137 | 6.6        | C (i)      |
| T29     | Ash<br>Fraxinus excelsior                | 12     | 290<br>270<br>150<br>150<br>150 | 5                                | EM        | F                 | Minor dead wood evident in the crown (<75mm)<br>Multi stemmed from base                                                                                                                                                | 102 | 5.7        | C (i)      |
| T30     | English Oak<br>Quercus robur             | 3      | 140                             | 2                                | Yng       | F                 | Dense undergrowth at the base                                                                                                                                                                                          | 9   | 1.7        | C (i)      |
| T31     | Removed for Phase 1                      |        |                                 |                                  |           |                   |                                                                                                                                                                                                                        |     |            |            |
| T32     | Horse Chestnut<br>Aesculus hippocastanum | 8      | 220                             | 8                                | Yng       | F                 | Branch stubs evident<br>Flail damage evident                                                                                                                                                                           | 22  | 2.6        | C (i)      |

| Tree No | Species                             | Height | Stem Dia. | Crown Radius                      | Age Class | Overall Condition | Structural Condition                                                                                                                                                                                                                                                                                                     | RPA | RPA Radius | BS5837 Cat |
|---------|-------------------------------------|--------|-----------|-----------------------------------|-----------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| T33     | English Oak<br><i>Quercus robur</i> | 14     | 900       | 9                                 | M         | F                 | Branch socket cavities observed<br>Branch stubs evident<br>Close cultivation of the soil<br>Major dead wood evident in the crown (>75mm)<br><i>Ganoderma applanatum</i> (jipsiense) Artists bracket present<br><i>Grifola frondosa</i> Hen of the woods (old fruiting body present)                                      | 366 | 10.8       | B (i)      |
| T34     | Ash<br><i>Fraxinus excelsior</i>    | 16     | 580       | 7                                 | M         | F                 | Basal cavity observed<br>Close cultivation of the soil<br>Epicormic growth evident within the crown<br><i>Inonotus hispidus</i> Shaggy bracket present                                                                                                                                                                   | 152 | 7.0        | C (i)      |
| T35     | Ash<br><i>Fraxinus excelsior</i>    | 17     | 690       | N - 10<br>S - 6<br>E - 7<br>W - 7 | M         | F                 | Branch socket cavities observed<br>Close cultivation of the soil<br>Co-dominant stem from 3m<br>slight lean to north<br><i>Inonotus hispidus</i> Shaggy bracket present                                                                                                                                                  | 215 | 8.3        | C (i)      |
| T36     | English Oak<br><i>Quercus robur</i> | 14     | 890       | 8                                 | M         | G                 | Close cultivation of the soil<br>Minor dead wood evident in the crown (<75mm)<br>No major defects were noted<br>Typical crown form                                                                                                                                                                                       | 358 | 10.7       | A (i)      |
| T37     | Ash<br><i>Fraxinus excelsior</i>    | 16     | 700       | N - 8<br>S - 8<br>E - 6<br>W - 5  | M         | F                 | Bark wounds noted<br>Basal cavity observed<br>Branch socket cavities observed<br>Branch stubs evident<br>Crossing and rubbing branches<br>Epicormic growth evident within the crown<br>Flail damage evident<br><i>Inonotus hispidus</i> Shaggy bracket present                                                           | 222 | 8.4        | B (i)      |
| T38     | Within boundary group               |        |           |                                   |           |                   |                                                                                                                                                                                                                                                                                                                          |     |            |            |
| T39     | Ash<br><i>Fraxinus excelsior</i>    | 16     | est 1100  | 8                                 | OM        | P                 | Base obscured<br>Branch socket cavities observed<br>Branch stubs evident<br>Dense undergrowth at the base<br>Dieback of the crown observed<br>Epicormic growth evident within the crown<br>Major dead wood evident in the crown (>75mm)<br>Minor dead wood evident in the crown (<75mm)<br>Specimen in extensive decline | 547 | 13.2       | C (i)      |
| T40     | Within boundary group               |        |           |                                   |           |                   |                                                                                                                                                                                                                                                                                                                          |     |            |            |

| Tree No | Species                             | Height | Stem Dia.      | Crown Radius                     | Age Class | Overall Condition | Structural Condition                                                                                                                                                                                                                                                                                                                                                                                            | RPA | RPA Radius | BS5837 Cat |
|---------|-------------------------------------|--------|----------------|----------------------------------|-----------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| T41     | English Oak<br><i>Quercus robur</i> | 14     | est 1000       | 8                                | M         | F                 | Barbed Wire attached to stem/s<br>Base obscured<br>Branch stubs evident<br>Broken branches evident<br>Characteristic for species<br>Crossing and rubbing branches<br>Dense undergrowth at the base<br>Epicormic growth evident within the crown<br>Flail damage evident<br>Low crown form<br>Minor dead wood evident in the crown (<75mm)<br>Laetiporus sulphureus Chicken of the wood/Sulphur Polypore present | 452 | 12.0       | A (i)      |
| T42     | Ash<br><i>Fraxinus excelsior</i>    | 10     | est 700        | 5                                | M         | P                 | Bark wounds noted<br>Base obscured<br>Branch stubs evident<br>Broken branches evident<br>Dense undergrowth at the base<br>Dieback of the crown observed<br>Epicormic growth evident within the crown<br>Major dead wood evident in the crown (>75mm)<br>Minor dead wood evident in the crown (<75mm)<br>Sparse / thinning crown<br>Specimen in extensive decline                                                | 222 | 8.4        | C (i)      |
| T43     | Ash<br><i>Fraxinus excelsior</i>    | 8      | est 700        | 3                                | M         | P                 | Bark wounds noted<br>Base obscured<br>Branch stubs evident<br>Broken branches evident<br>Dense undergrowth at the base<br>Dieback of the crown observed<br>Epicormic growth evident within the crown<br>Major dead wood evident in the crown (>75mm)<br>Minor dead wood evident in the crown (<75mm)<br>Sparse / thinning crown<br>Specimen in extensive decline                                                | 222 | 8.4        | C (i)      |
| T44     | Ash<br><i>Fraxinus excelsior</i>    | 11     | est 400<br>400 | 7                                | M         | F                 | Branch socket cavities observed<br>Dense ivy cover on main stem<br>Flail damage evident<br>Twin stemmed from base                                                                                                                                                                                                                                                                                               | 145 | 6.8        | C (i)      |
| T45     | Ash<br><i>Fraxinus excelsior</i>    | 17     | 700            | N - 8<br>S - 9<br>E - 7<br>W - 8 | M         | F                 | Branch stubs evident<br>Epicormic growth evident within the crown<br>Lateral lever arm observed<br>Minor dead wood evident in the crown (<75mm)                                                                                                                                                                                                                                                                 | 222 | 8.4        | B (i)      |

| Tree No | Species                                  | Height | Stem Dia.                       | Crown Radius                     | Age Class | Overall Condition | Structural Condition                                                                                                                                                                                                                                                                             | RPA | RPA Radius | BS5837 Cat |
|---------|------------------------------------------|--------|---------------------------------|----------------------------------|-----------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| T46     | Ash<br>Fraxinus excelsior                | 18     | est 1100                        | 10                               | OM        | P                 | Basal cavity observed<br>Dense ivy cover on main stem<br>Dense undergrowth at the base<br>Dieback of the crown observed<br>Major dead wood evident in the crown (>75mm)<br>Minor dead wood evident in the crown (<75mm)<br>Woodpecker holes observed<br>Inonotus hispidus Shaggy bracket present | 547 | 13.2       | C (i)      |
| T47     | English Oak<br>Quercus robur             | 10     | 300                             | N - 6<br>S - 6<br>E - 7<br>W - 4 | EM        | F                 | Branch stubs evident<br>Minor dead wood evident in the crown (<75mm)                                                                                                                                                                                                                             | 41  | 3.6        | B (i)      |
| T48     | Field Maple<br>Acer campestre            | 8      | 150<br>150<br>150               | N - 3<br>S - 1<br>E - 3<br>W - 3 | EM        | F                 | Crossing and rubbing branches<br>Flail damage evident                                                                                                                                                                                                                                            | 31  | 3.1        | C (i)      |
| T49     | Hawthorn<br>Crataegus monogyna           | 4      | 200                             | 2                                | M         | F                 | Crossing and rubbing branches<br>Outgrown hedgerow                                                                                                                                                                                                                                               | 18  | 2.4        | C (i)      |
| T50     | Scots Pine<br>Pinus sylvestris           | 4      | 200                             | 2                                | Yng       | F                 | Dense undergrowth at the base                                                                                                                                                                                                                                                                    | 18  | 2.4        | C (i)      |
| T51     | Ash<br>Fraxinus excelsior                | 6      | 200<br>200<br>200<br>200<br>200 | 3                                | EM        | F                 | Multi stemmed from base<br>Sporadic self-seeded group of trees                                                                                                                                                                                                                                   | 90  | 5.4        | C (i)      |
| T52     | Removed for Phase 1                      |        |                                 |                                  |           |                   |                                                                                                                                                                                                                                                                                                  |     |            |            |
| T53     | Horse Chestnut<br>Aesculus hippocastanum | 5      | 360                             | 3                                | SM        | F                 | Branch stubs evident<br>Flail damage evident<br>No major defects were noted                                                                                                                                                                                                                      | 59  | 4.3        | C (i)      |
| T54     | Horse Chestnut<br>Aesculus hippocastanum | 5      | 320                             | 4                                | SM        | F                 | Branch stubs evident<br>Flail damage evident<br>No major defects were noted                                                                                                                                                                                                                      | 46  | 3.8        | C (i)      |

| Tree No | Species                                         | Height | Stem Dia.  | Crown Radius                     | Age Class | Overall Condition | Structural Condition                                                                                                                                                                                    | RPA | RPA Radius | BS5837 Cat |
|---------|-------------------------------------------------|--------|------------|----------------------------------|-----------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| T55     | Scots Pine<br><i>Pinus sylvestris</i>           | 3      | 200        | 3                                | SM        | F                 | Co-dominant stem from 2m                                                                                                                                                                                | 18  | 2.4        | C (i)      |
| T56     | Bird Cherry<br><i>Prunus padus</i>              | 4      | 100        | 2                                | Yng       | F                 | No major defects were noted                                                                                                                                                                             | 5   | 1.2        | C (i)      |
| T57     | Horse Chestnut<br><i>Aesculus hippocastanum</i> | 4      | 270        | 3                                | SM        | P                 | Bark wounds noted<br>Flail damage evident<br><i>Pseudomonas syringae</i> pv. <i>aesculi</i><br>Bleeding canker of horse chestnut                                                                        | 33  | 3.2        | C (i)      |
| T58     | Horse Chestnut<br><i>Aesculus hippocastanum</i> | 8      | 390        | 4                                | SM        | F                 | Branch stubs evident<br>Minor dead wood evident in the crown (<75mm)<br>No major defects were noted<br>Pruning wounds noted                                                                             | 69  | 4.7        | B (i)      |
| T59     | Horse Chestnut<br><i>Aesculus hippocastanum</i> | 6      | 340        | N - 5<br>S - 3<br>E - 5<br>W - 3 | SM        | F                 | Branch stubs evident<br>Pruning wounds noted<br><i>Pseudomonas syringae</i> pv. <i>aesculi</i><br>Bleeding canker of horse chestnut                                                                     | 52  | 4.1        | C (i)      |
| T60     | Ash<br><i>Fraxinus excelsior</i>                | 17     | est 800    | N - 9<br>S - 9<br>E - 7<br>W - 7 | M         | P                 | Branch socket cavities observed<br>Branch stubs evident<br>Epicormic growth evident within the crown<br>Minor dead wood evident in the crown (<75mm)<br><i>Inonotus hispidus</i> Shaggy bracket present | 290 | 9.6        | C (i)      |
| T61     | Ash<br><i>Fraxinus excelsior</i>                | 17     | 800        | N - 8<br>S - 7<br>E - 9<br>W - 7 | M         | F                 | Bark wounds noted<br>Basal suckers present<br>Branch stubs evident<br>Close cultivation of the soil<br>Epicormic growth evident within the crown                                                        | 290 | 9.6        | B (i)      |
| T62     | Removed for Phase 1                             |        |            |                                  |           |                   |                                                                                                                                                                                                         |     |            |            |
| T63     | Removed for Phase 1                             |        |            |                                  |           |                   |                                                                                                                                                                                                         |     |            |            |
| T64     | Ash<br><i>Fraxinus excelsior</i>                | 4      | 120<br>120 | 3                                | Yng       | F                 | Multi stemmed from base                                                                                                                                                                                 | 13  | 2.0        | C (i)      |

| Tree No | Species                                  | Height | Stem Dia.  | Crown Radius | Age Class | Overall Condition | Structural Condition                                                                                                                            | RPA | RPA Radius | BS5837 Cat |
|---------|------------------------------------------|--------|------------|--------------|-----------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| T65     | Tree no longer present                   |        |            |              |           |                   |                                                                                                                                                 |     |            |            |
| T66     | Ash<br>Fraxinus excelsior                | 8      | 280        | 3            | EM        | F                 | Branch stubs evident<br>Dense undergrowth at the base                                                                                           | 35  | 3.4        | C (i)      |
| T67     | Ash<br>Fraxinus excelsior                | 8      | 300        | 3            | EM        | F                 | Branch stubs evident                                                                                                                            | 41  | 3.6        | C (i)      |
| T68     | Tree no longer present                   |        |            |              |           |                   |                                                                                                                                                 |     |            |            |
| T69     | Tree no longer present                   |        |            |              |           |                   |                                                                                                                                                 |     |            |            |
| T70     | Horse Chestnut<br>Aesculus hippocastanum | 7      | 280        | 3            | SM        | F                 | Minor dead wood evident in the crown (<75mm)<br>No major defects were noted                                                                     | 35  | 3.4        | B (i)      |
| T71     | Ash<br>Fraxinus excelsior                | 9      | 300        | 4            | EM        | F                 | Branch stubs evident<br>No major defects were noted                                                                                             | 41  | 3.6        | C (i)      |
| T72     | Wild Cherry<br>Prunus avium              | 4      | 100        | 4            | EM        | F                 | Situated offsite                                                                                                                                | 5   | 1.2        | C (i)      |
| T73     | English Oak<br>Quercus robur             | 14     | est<br>820 | 12           | M         | F                 | Branch stubs evident<br>Minor dead wood evident in the crown (<75mm)<br>No major defects were noted<br>Pruning wounds noted<br>Situated offsite | 304 | 9.8        | A (i)      |

| Tree No | Species                                | Height | Stem Dia.             | Crown Radius | Age Class | Overall Condition | Structural Condition                                                                        | RPA | RPA Radius | BS5837 Cat |
|---------|----------------------------------------|--------|-----------------------|--------------|-----------|-------------------|---------------------------------------------------------------------------------------------|-----|------------|------------|
| T74     | Ash<br><i>Fraxinus excelsior</i>       | 16     | 800                   | 8            | M         | F                 | Basal cavity observed<br>Branch stubs evident<br>Light ivy cover<br>Possible stem hollowing | 290 | 9.6        | B (i)      |
| T75     | Field Maple<br><i>Acer campestre</i>   | 5      | 200                   | 3            | EM        | F                 | Outgrown hedgerow                                                                           | 18  | 2.4        | C (i)      |
| T76     | Elder<br><i>Sambucus nigra</i>         | 4      | est<br>200            | 3            | EM        | F                 | Situated offsite<br>Unable to gain access                                                   | 18  | 2.4        | C (i)      |
| T77     | Field Maple<br><i>Acer campestre</i>   | 5      | 150<br>150            | 3            | EM        | F                 | Situated offsite<br>Unable to gain access                                                   | 20  | 2.5        | C (i)      |
| T78     | Elder<br><i>Sambucus nigra</i>         | 5      | 150                   | 3            | EM        | F                 | Situated offsite<br>Unable to gain access                                                   | 10  | 1.8        | C (i)      |
| T79     | Common Lime<br><i>Tilia x europaea</i> | 5      | 150                   | 3            | SM        | F                 | Broken branches evident<br>Flail damage evident                                             | 10  | 1.8        | C (i)      |
| T80     | English Oak<br><i>Quercus robur</i>    | 8      | 300                   | 3            | EM        | F                 | Branch stubs evident<br>Flail damage evident                                                | 41  | 3.6        | B (i)      |
| T81     | Hornbeam<br><i>Carpinus betulus</i>    | 6      | 120                   | 2            | SM        | F                 | No major defects were noted                                                                 | 7   | 1.4        | C (i)      |
| T82     | Rowan<br><i>Sorbus aucuparia</i>       | 4      | avg<br>80<br>80<br>80 | 2            | Yng       | F                 | No major defects were noted                                                                 | 9   | 1.7        | C (i)      |
| T83     | Alder<br><i>Alnus glutinosa</i>        | 4      | 120                   | 2            | Yng       | P                 | Branch stubs evident                                                                        | 7   | 1.4        | C (i)      |

| Tree No | Species                       | Height | Stem Dia.  | Crown Radius | Age Class | Overall Condition | Structural Condition                      | RPA | RPA Radius | BS5837 Cat |
|---------|-------------------------------|--------|------------|--------------|-----------|-------------------|-------------------------------------------|-----|------------|------------|
| T84     | Alder<br>Alnus glutinosa      | 4      | 110        | 2            | Yng       | P                 | Branch stubs evident                      | 5   | 1.3        | C (i)      |
| T85     | Field Maple<br>Acer campestre | 8      | 200<br>220 | 3            | EM        | F                 | Branch stubs evident<br>Multi leaved form | 40  | 3.6        | C (i)      |
| T86     | Field Maple<br>Acer campestre | 5      | 120<br>120 | 3            | SM        | F                 | Twin stemmed from base                    | 13  | 2.0        | C (i)      |

| Group No               | Species                                                                                                                                                                                      | Height | Stem Dia.                | Crown Radius | Age Class | Overall Condition | Structural Condition                                                                                                                                                                                                                | RPA | RPA Radius | BS5837 Cat |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------------|--------------|-----------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| <b>GROUPS OF TREES</b> |                                                                                                                                                                                              |        |                          |              |           |                   |                                                                                                                                                                                                                                     |     |            |            |
| G1                     | Ash<br>Fraxinus excelsior<br>Blackthorn<br>Prunus spinosa<br>English Oak<br>Quercus robur<br>Field Maple<br>Acer campestre<br>Hawthorn<br>Crataegus monogyna<br>English Elm<br>Ulmus procera | 6      | est<br>8x 80             | 2            | SM / EM   | F                 | Base obscured<br>Characteristic for species<br>Crossing and rubbing branches<br>Dead trees noted<br>Flail damage evident<br>Interlocking crowns<br>Low crown form<br>Outgrown hedgerow<br>Ophiostoma novo-ulmi<br>Dutch elm disease | 23  | 2.7        | C (ii)     |
| G2                     | Crack Willow<br>Salix fragilis<br>Field Maple<br>Acer campestre                                                                                                                              | 12     | avg<br>300<br>300<br>300 | 6            | EM / M    | F                 | Base obscured<br>Branch stubs evident<br>Broken branches evident<br>Characteristic for species<br>Crossing and rubbing branches<br>Dense undergrowth at the base<br>Interlocking crowns<br>Low crown form                           | 122 | 6.2        | C (ii)     |
| G3                     | Blackthorn<br>Prunus spinosa<br>Hawthorn<br>Crataegus monogyna<br>English Elm<br>Ulmus procera                                                                                               | 3      | avg<br>100               | 2            | EM        | P                 | Dead trees noted<br>Gaps present in hedgerow<br>Outgrown hedgerow                                                                                                                                                                   | 5   | 1.2        | C (ii)     |
| G4                     | Field Maple<br>Acer campestre<br>Hawthorn<br>Crataegus monogyna                                                                                                                              | 4      | est<br>150               | 2            | EM        | F                 | Outgrown hedgerow                                                                                                                                                                                                                   | 10  | 1.8        | C (ii)     |
| G5                     | English Oak<br>Quercus robur<br>Field Maple<br>Acer campestre                                                                                                                                | 4      | avg<br>80<br>80<br>80    | 2            | EM        | F                 | Outgrown hedgerow                                                                                                                                                                                                                   | 9   | 1.7        | C (iii)    |

| Group No | Species                                                                                                                                                                                                                     | Height | Stem Dia. | Crown Radius | Age Class | Overall Condition | Structural Condition                                                                            | RPA | RPA Radius | BS5837 Cat |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------|--------------|-----------|-------------------|-------------------------------------------------------------------------------------------------|-----|------------|------------|
| G6       | Blackthorn<br>Prunus spinosa<br>Hawthorn<br>Crataegus monogyna                                                                                                                                                              | 3      | est 100   | 2            | M         | P                 | Dense undergrowth at the base<br>Outgrown hedgerow                                              | 5   | 1.2        | C (ii)     |
| G7       | Ash<br>Fraxinus excelsior                                                                                                                                                                                                   | 5      | est 200   | 2            | EM        | F                 | Base obscured<br>Crossing and rubbing branches<br>Multi stemmed from base                       | 18  | 2.4        | C (ii)     |
| G8       | Removed for Phase 1                                                                                                                                                                                                         |        |           |              |           |                   |                                                                                                 |     |            |            |
| G9       | English Oak<br>Quercus robur<br>Field Maple<br>Acer campestre<br>Alder<br>Alnus glutinosa                                                                                                                                   | 5      | upto 200  | 4            | EM        | F                 | Crossing and rubbing branches<br>Interlocking crowns<br>Low crown form                          | 18  | 2.4        | C (ii)     |
| G10      | Crack Willow<br>Salix fragilis<br>English Oak<br>Quercus robur<br>Field Maple<br>Acer campestre<br>Hawthorn<br>Crataegus monogyna<br>Wild Cherry<br>Prunus avium<br>Alder<br>Alnus glutinosa<br>Dogwood<br>Cornus sanguinea | 12     | est 400   | 6            | EM        | F                 | Crossing and rubbing branches<br>Interlocking crowns<br>Low crown form<br>Unable to gain access | 72  | 4.8        | B (ii)     |
| G11      | Lawson Cypress<br>Chamaecyparis lawsoniana                                                                                                                                                                                  | 12     | est 450   | 4            | EM        | F                 | Situated offsite                                                                                | 92  | 5.4        | C (ii)     |

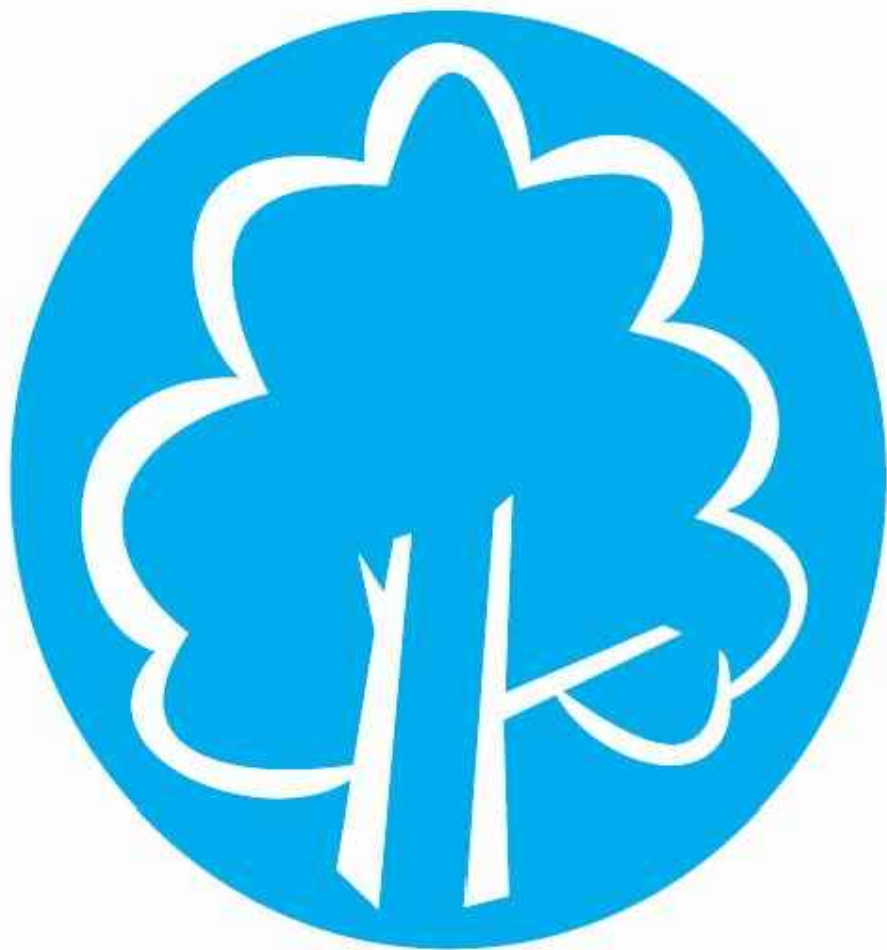
| Group No | Species                                                                                                                                                                                                                                           | Height | Stem Dia.   | Crown Radius | Age Class | Overall Condition | Structural Condition                                                                                                                         | RPA | RPA Radius | BS5837 Cat |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|--------------|-----------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| G12      | Ash<br>Fraxinus excelsior<br>Common Lime<br>Tilia x europaea<br>Crack Willow<br>Salix fragilis<br>Elder<br>Sambucus nigra<br>English Oak<br>Quercus robur<br>Goat Willow<br>Salix caprea<br>Rowan<br>Sorbus aucuparia<br>Whitebeam<br>Sorbus aria | 14     | est<br>300  | 5            | EM        | F                 | Base obscured<br>Crossing and rubbing branches<br>Dense undergrowth at the base<br>Interlocking crowns<br>Low crown form<br>Situated offsite | 41  | 3.6        | B (ii)     |
| G13      | Ash<br>Fraxinus excelsior<br>Common Lime<br>Tilia x europaea<br>Goat Willow<br>Salix caprea<br>Hawthorn<br>Crataegus monogyna<br>Alder<br>Alnus glutinosa<br>Scots Pine<br>Pinus sylvestris                                                       | 8      | upto<br>200 | 3            | EM        | F                 | Crossing and rubbing branches<br>Flail damage evident                                                                                        | 18  | 2.4        | C (ii)     |

| Group No | Species                                                                                                                                                                                                                                                              | Height | Stem Dia.    | Crown Radius | Age Class | Overall Condition | Structural Condition                                                                                                                                               | RPA | RPA Radius | BS5837 Cat |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------|--------------|-----------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| G14      | Blackthorn<br>Prunus spinosa<br>Ash<br>Fraxinus excelsior<br>English Oak<br>Quercus robur<br>Field Maple<br>Acer campestre<br>Grey Poplar<br>Populus canescens<br>Hawthorn<br>Crataegus monogyna<br>Hornbeam<br>Carpinus betulus<br>Mountain Ash<br>Sorbus aucuparia | 10     | upto 250     | 4            | SM-EM     | F                 | Buffer planting situated off site                                                                                                                                  | 28  | 3.0        | B (ii)     |
| G15      | Blackthorn<br>Prunus spinosa<br>English Oak<br>Quercus robur<br>Hawthorn<br>Crataegus monogyna<br>Crab Apple<br>Malus sylvestris<br>Dogwood<br>Cornus sanguinea                                                                                                      | 4      | est<br>8x 80 | 2            | SM / EM   | F                 | Base obscured<br>Characteristic for species<br>Crossing and rubbing branches<br>Flail damage evident<br>Interlocking crowns<br>Low crown form<br>Outgrown hedgerow | 23  | 2.7        | C (ii)     |
| G16      | Ash<br>Fraxinus excelsior<br>Blackthorn<br>Prunus spinosa<br>English Oak<br>Quercus robur<br>Hawthorn<br>Crataegus monogyna                                                                                                                                          | 6      | est<br>8x 80 | 2            | SM / EM   | F                 | Base obscured<br>Characteristic for species<br>Crossing and rubbing branches<br>Flail damage evident<br>Interlocking crowns<br>Low crown form<br>Outgrown hedgerow | 23  | 2.7        | C (ii)     |

| Hedge No         | Species                                                                                                                            | Height | Stem Dia.     | Crown Radius | Age Class | Overall Condition | Structural Condition                            | RPA | RPA Radius | BS5837 Cat |
|------------------|------------------------------------------------------------------------------------------------------------------------------------|--------|---------------|--------------|-----------|-------------------|-------------------------------------------------|-----|------------|------------|
| <b>HEDGEROWS</b> |                                                                                                                                    |        |               |              |           |                   |                                                 |     |            |            |
| H1               | Hawthorn<br>Crataegus monogyna                                                                                                     | 2      | est<br>100    | 1            | EM        | P                 | Outgrown hedgerow                               | 5   | 1.2        | C (ii)     |
| H2               | Blackthorn<br>Prunus spinosa<br>English Oak<br>Quercus robur<br>Field Maple<br>Acer campestre<br>Hawthorn<br>Crataegus monogyna    | 3      | est<br>100    | 1            | EM        | F                 | Maintained hedgerow                             | 5   | 1.2        | B (ii)     |
| H3               | Blackthorn<br>Prunus spinosa<br>Field Maple<br>Acer campestre<br>Hawthorn<br>Crataegus monogyna<br>Privet<br>Ligustrum ovalifolium | 2      | est<br>6x 60  | 1            | EM        | F                 | Maintained hedgerow<br>Outgrown hedgerow        | 10  | 1.8        | C (ii)     |
| H4               | Now recorded as Group 15                                                                                                           |        |               |              |           |                   |                                                 |     |            |            |
| H5               | Now recorded as Group 1                                                                                                            |        |               |              |           |                   |                                                 |     |            |            |
| H6               | Blackthorn<br>Prunus spinosa<br>Field Maple<br>Acer campestre<br>Hawthorn<br>Crataegus monogyna                                    | 3      | upto<br>6x 60 | 2            | M         | F                 | Gaps present in hedgerow<br>Maintained hedgerow | 10  | 1.8        | C (ii)     |

| Hedge No | Species                                                                                                                                                        | Height | Stem Dia.    | Crown Radius | Age Class | Overall Condition | Structural Condition                                                                                             | RPA | RPA Radius | BS5837 Cat |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------|--------------|-----------|-------------------|------------------------------------------------------------------------------------------------------------------|-----|------------|------------|
| H7       | Blackthorn<br>Prunus spinosa<br>Field Maple<br>Acer campestre<br>Hawthorn<br>Crataegus monogyna<br>Wild Cherry<br>Prunus avium<br>English Elm<br>Ulmus procera | 3      | est<br>6x 60 | 2            | EM        | F                 | Dead trees noted<br>Flail damage evident<br>Gaps present in hedgerow<br>Maintained hedgerow<br>Outgrown hedgerow | 10  | 1.8        | C (ii)     |
| H8       | Blackthorn<br>Prunus spinosa<br>Hawthorn<br>Crataegus monogyna                                                                                                 | 1.5    | est<br>6x 60 | 2            | SM        | F                 | Maintained hedgerow                                                                                              | 10  | 1.8        | C (ii)     |
| H9       | Blackthorn<br>Prunus spinosa<br>Elder<br>Sambucus nigra<br>Field Maple<br>Acer campestre<br>Hawthorn<br>Crataegus monogyna<br>Crab Apple<br>Malus sylvestris   | 1.5    | est<br>6x 60 | 2            | EM        | F                 | Maintained hedgerow<br>Outgrown hedgerow                                                                         | 10  | 1.8        | B (ii)     |
| H10      | Elder<br>Sambucus nigra<br>Hawthorn<br>Crataegus monogyna                                                                                                      | 2      | est<br>6x 60 | 2            | EM        | F                 | Maintained hedgerow                                                                                              | 10  | 1.8        | B (ii)     |
| H11      | Blackthorn<br>Prunus spinosa<br>Hawthorn<br>Crataegus monogyna                                                                                                 | 1      | est<br>100   | 2            | EM        | F                 | Maintained hedgerow                                                                                              | 5   | 1.2        | C (ii)     |
| H12      | Blackthorn<br>Prunus spinosa<br>Hawthorn<br>Crataegus monogyna                                                                                                 | 3      | est<br>100   | 2            | EM        | F                 | Maintained hedgerow<br>Outgrown hedgerow                                                                         | 5   | 1.2        | B (ii)     |

| Hedge No | Species                                                                                                                | Height | Stem Dia.    | Crown Radius | Age Class | Overall Condition | Structural Condition                                                             | RPA | RPA Radius | BS5837 Cat |
|----------|------------------------------------------------------------------------------------------------------------------------|--------|--------------|--------------|-----------|-------------------|----------------------------------------------------------------------------------|-----|------------|------------|
| H13      | Hawthorn<br>Crataegus monogyna                                                                                         | 3      | est<br>100   | 2            | EM        | F                 | Maintained hedgerow                                                              | 5   | 1.2        | B (ii)     |
| H14      | Blackthorn<br>Prunus spinosa<br>Hawthorn<br>Crataegus monogyna<br>Hazel<br>Corylus avellana                            | 3      | est<br>6x 60 | 2            | SM        | F                 | Maintained hedgerow                                                              | 10  | 1.8        | B (ii)     |
| H15      | Cypress sp.                                                                                                            | 2      | est<br>100   | 1            | SM        | F                 | Maintained hedgerow<br>Situated offsite                                          | 5   | 1.2        | C (ii)     |
| H16      | Cypress sp.                                                                                                            | 2      | est<br>100   | 1            | SM        | F                 | Maintained hedgerow<br>Situated offsite                                          | 5   | 1.2        | C (ii)     |
| H17      | Blackthorn<br>Prunus spinosa<br>Field Maple<br>Acer campestre<br>Hawthorn<br>Crataegus monogyna                        | 2      | est<br>100   | 2            | SM        | F                 | Maintained hedgerow                                                              | 5   | 1.2        | C (ii)     |
| H18      | Field Maple<br>Acer campestre<br>Hawthorn<br>Crataegus monogyna                                                        | 2      | est<br>6x 60 | 2            | SM        | F                 | Maintained hedgerow                                                              | 10  | 1.8        | B (ii)     |
| H19      | Blackthorn<br>Prunus spinosa<br>Elder<br>Sambucus nigra<br>Hawthorn<br>Crataegus monogyna<br>Hazel<br>Corylus avellana | 1.5    | est<br>6x 60 | 2            | EM        | F                 | Dense undergrowth at the base<br>Gaps present in hedgerow<br>Maintained hedgerow | 10  | 1.8        | B (ii)     |



**PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.**



**TREE PROTECTION AREA  
KEEP OUT !**  
**(TOWN & COUNTRY PLANNING ACT 1990)**  
**TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.**  
**CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION**  
**ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY**

The following points are to be considered at all times:

1. Protective fencing has been installed at the extent of the calculated root protection area (RPA) - **DO NOT USE OR ACCESS** the ground within the fenced area. This is particularly the case for placement of site offices, stockpiles of soil or fuel and material storage, storing machinery or parking vehicles, debris or building materials or fires.
2. **AVOID** excavations, changes in ground levels or tracking machinery within the fenced area at ALL TIMES. These activities can seriously compromise the long term survival of trees due to the impact on a trees roots.
3. **REPORT** any instances where the fencing has been removed, repositioned, damaged or is not fit for purpose to the Site Manager. This shall help the Site Manager to ensure that the fencing is maintained throughout the construction process. It will also reduce the risk of any staff and contractors accidentally and inadvertently causing damage to trees as a result.

**Retained trees are protected by planning law and reckless damage or non consented tree removal could result in the serving of a stop notice or prosecution by the LPA**



For more information on Tree Protection please visit the website link <https://goo.gl/hpBkTv> or scan the QR code on a Smartphone or Tablet.

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## Appendix C1: Tree Surgery Contractors – Tree Work Methodology

Table 1: Related Reference Material

| Plan Name            | Drawing Number                  |
|----------------------|---------------------------------|
| Tree Survey Plans    | 7535-T-01, 7535-T-02, 7535-T-03 |
| Tree Retention Plan  | 7535-T-04                       |
| Tree Protection Plan | 7535-T-05                       |
| Appendices           | Appendix Title                  |
| Appendix A           | Tree Schedule                   |

The Site Manager and tree surgery contractor must ensure that any necessary consent has been received from the local authority and that no protected species are harmed whilst carrying out site clearance or tree surgery works.

The trees to be removed to facilitate the development will be marked up by the Arboricultural Clerk of Works during the pre-commencement site meeting and, where required, with the tree surgeon present. Highly visible fluorescent paint will be used to assist in identification. A pre-commencement tool box talk will be given and the works will only be carried out once the project ecologist is satisfied that there are no ecological constraints.

The trees to be removed are shown on the Tree Retention Plans (referenced above) as red circles hatched with red criss-crossing lines. A key has been provided on each of the plans to assist with identification.

Works on all trees cannot commence until all pre-commencement conditions have been discharged.

### GENERAL TREE PRUNING RECOMMENDATIONS

All works shall be in accordance with BS 3998:2010 '*Tree work. Recommendations*'. Any competent arboriculturist will be aware of this publication and will be able to carry out work to the required standard. Therefore, the use of a competent tree surgery contractor is necessary to comply with this.

Prior to any pruning operations occurring, the tree and its surroundings should be assessed for the presence of any protected species and the timing of works should best avoid the potential for any adverse impact on wildlife. Consideration should be made for the seasonal cycles of species of fauna and flora e.g. nesting birds.

Minor pruning can be carried out at any time of the year however, it is recommended that pruning is avoided when deciduous trees, particularly maples, lime and birch are coming into leaf (Spring). Equally, pruning should be avoided in the autumn months when the trees ability to seal wounds is reduced and thus vulnerability to pathogenic decay fungi is much higher. Pruning in the Autumn depletes valuable energy reserves. This is particularly important if it is necessary to carry out heavy pruning or work on older trees. Pruning should also be avoided during or soon after drought.

Before any tree work operations commence, the method of disposal, utilization or retention of arisings should be prior agreed. Disposal of arising should not involve burning unless other options of disposal are impracticable or, as in the case of Ash Dieback, the material is affected by a diseases or pest for which industry guidance on sanitation dictates.

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and The National Agri-Food Innovation Campus, Sand Hutton, York YO41 1LZ Tel: 01904 406112



## Appendix C2 Tree Protection – Working Methodology

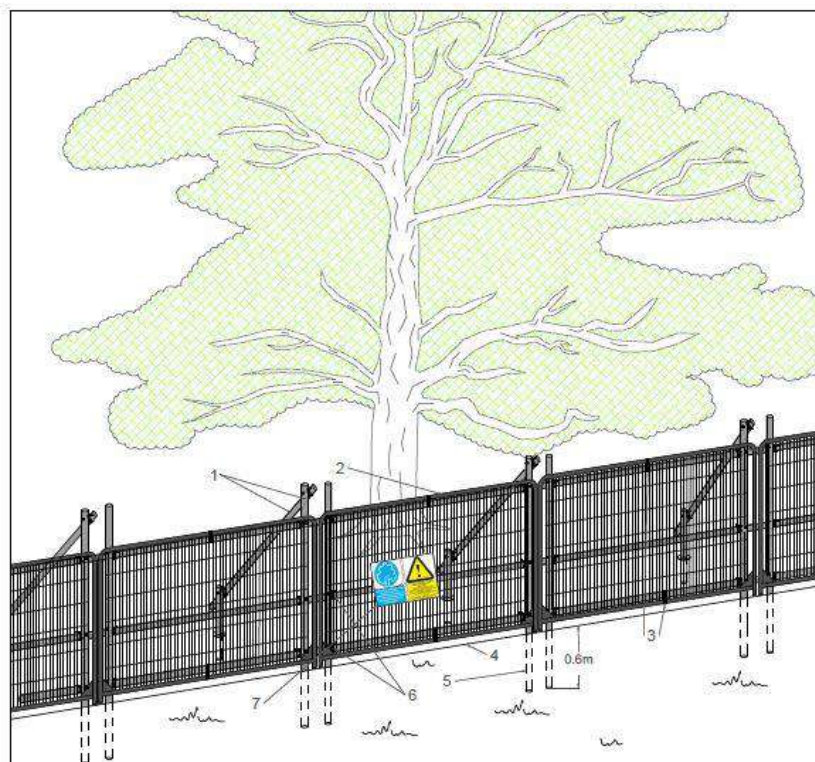
Table 1: Related Reference Material

| Plan Name            | Drawing Number             |
|----------------------|----------------------------|
| Tree Protection Plan | 7535-T-05                  |
| Appendices           | Appendix Title             |
| Appendix A           | Tree Schedule              |
| Appendix B           | Protective Fencing Signage |

Tree Protection Fencing will be installed as detailed in Tree Protection Plans (referenced above) at, where possible, the extent of the root protection areas of retained trees using the dimensions indicated on the relevant plans. The positioning of the Tree Protective Fencing shall be measured out with assistance from the Arboricultural Clerk of Works and, where deemed necessary, with the Site Manager present. Highly visible fluorescent paint and / or marker pegs / stakes will be used to assist in identification.

### STANDARD FENCING SPECIFICATION

Unless stated below, Protective Fencing will comprise a Heras HSG151 panel framework supported by scaffold poles driven into the ground. An example of this has been illustrated below.



Standard specification for High Intensity 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

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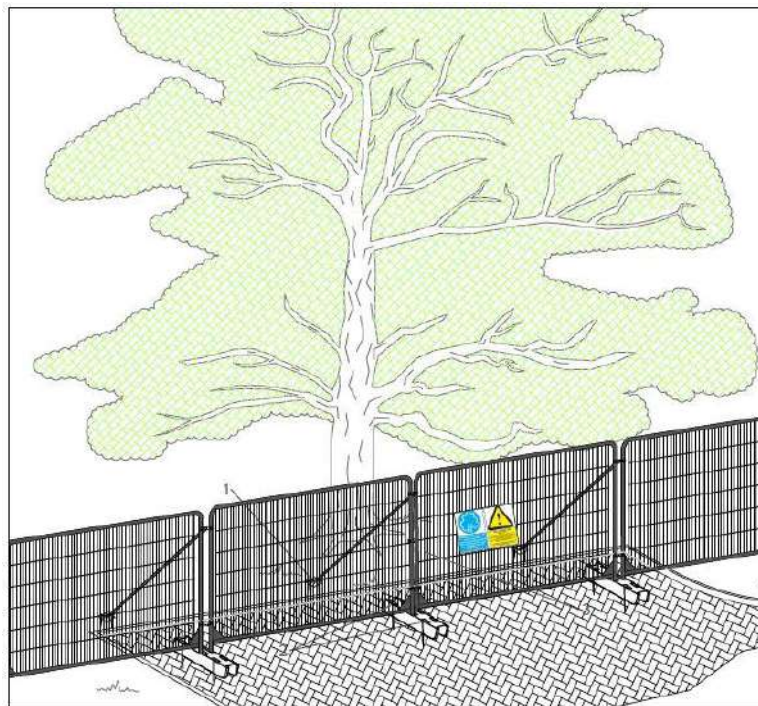
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### Installation Guide

- The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights.
- The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with clamps to each joint.
- The diagonal scaffold pole struts shall be clamped to the top rail of the scaffold framework at a 45° angle and extend back into the root protection area and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
- No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.

### TEMPORARY FENCING SPECIFICATION

This fencing specification shall only be used where specified on the relevant Tree Protection Plans as is not to be used as an alternative to the standard specification unless determined by the Arboricultural Clerk of Works.



Standard Specification for Above Ground Stabilizing Systems

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

Heras Fence Panel to be supported by rubberised stabiliser blocks with a base plate which is secured to the ground using ground pins (as shown above).

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## **GENERAL TREE PROTECTIVE FENCING METHODOLOGY**

The fencing will be strong and suitable for the location, type and proximity of construction activity and prevent access of machinery, plant or operative beyond the area required to construct the development.

Tree Protection Fencing and work exclusion zones will be clearly marked using appropriate signage, an example of which has been included as Appendix B. These signs shall be laminated to ensure they last the duration of the construction works and shall be fixed to the fencing panels every 10 metres along its length.

All Tree Protective Fencing will remain rigid and in place for the duration of the development and should be inspected at weekly intervals by the Site Manager alongside regular inspections to be carried out by the Arboricultural Clerk of Works.

Following the completion of construction works and in agreement with the Arboricultural Clerk of Works, the Tree Protection Fencing will be removed carefully as to avoid causing root disturbance or leaving in situ any lengths of scaffold framework. This operation can be carried out prior to soft landscaping works such as new planting, mulching grass sowing etc.

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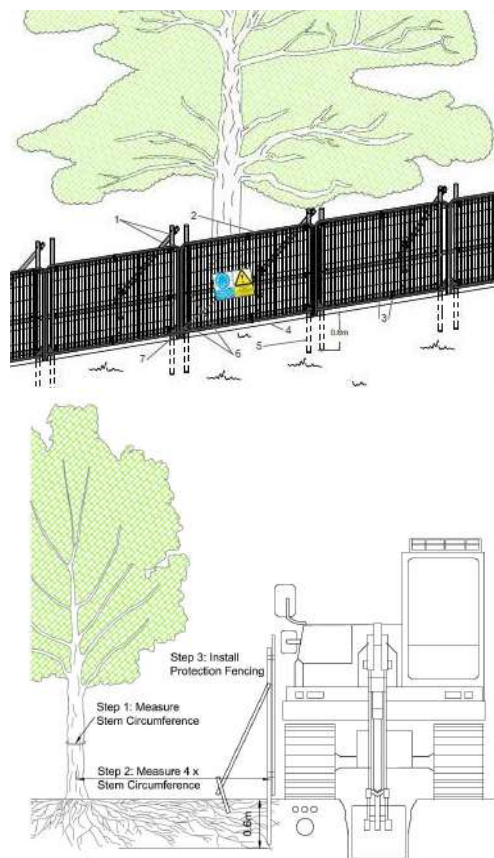
# WHAT YOU NEED TO KNOW ABOUT WORKING NEAR TREES

This advice note provides a brief overview of the methods of protection for trees located across the site. Compliance with these guidelines will be a requirement of all contractors working near retained trees.

Any construction works which are to be carried out near to or within the fenced off areas should be carried out in accordance with the Arboricultural Method Statement and as explained by the Site Manager during the site induction. Failure to adhere to the correct sequence, manner and timing of operations detailed in the Arboricultural Method Statement may result in irremediable damage to trees or disturbance to retained tree cover.

**Retained trees are protected by planning law and reckless damage or non consented tree removal could result in the serving of a stop notice or prosecution by the LPA.**

Trees make a significant contribution to the landscape character of the development and they are to be treated as important assets. To protect these assets, tree protective fencing has been installed where required across the site.



## The following points are to be considered at all times.

1. Protective fencing has been installed at the extent of the calculated root protection area (RPA) - **Do not use or access** the ground within the fenced area. This is particularly the case for placement of site offices, stockpiles of soil or fuel and material storage, storing machinery or parking of vehicles, debris or building materials or fires.
2. **Avoid** excavations, changes in ground levels or tracking of machinery within the fenced area at **all times**. These activities can seriously compromise the long term survival of trees due to the impact on a trees roots.
3. **Report** any instances where the fencing has been removed, repositioned, damaged or is not fit for purpose (see images below) to the Site Manager. This shall help the Site Manager to ensure that the fencing is maintained throughout the construction process. It will also reduce the risk of any staff and contractors accidentally and inadvertently causing damage to trees as a result.



**Unacceptable** example of tree protection due to a lack of adequate fencing and poor site management. Note mounds of soil have been placed within the Root Protection Area.



Tree Protection Fencing which has been erected prior to the commencement of any site works and the correct signage has been provided to clearly highlight that this is a protected zone.

Please acknowledge you have read and understand this document by visiting the website <http://bit.ly/2EprKu8> or scanning the QR Code on a Smartphone or Tablet.



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