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HIGH STREET, ROCESTER, UTTOXETER

**ARBORICULTURAL METHOD
STATEMENT**

A Report to: SEP

Report No: RT-MME-157323-02

Date: March 2022



REPORT VERIFICATION

This study has been undertaken in accordance with British Standard 5837:2012 "Trees in relation to design, demolition and construction - Recommendations".

Report Version	Date	Completed by:	Checked and Approved by:
Final	10/03/2022	Stefan Harrison BSc (Hons) M.Arbor.A (Arboricultural Consultant)	Duncan Smith BSc (Hons) M.Arbor.A (Arboricultural Manager)

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are based upon the survey data produced as part of the Preliminary Arboricultural Assessment which is valid for a period of 12 months from the date of survey. If a planning application has not been submitted by this date, an updated site visit should be carried out by a suitably qualified and experienced arboriculturist to assess any changes to the trees on site to inform a review of the conclusions and recommendations made.

It should be noted that trees are dynamic living organisms that are subject to natural changes as they age or are influenced by changes in their environment. As such, following any significant meteorological event or changes in the growing environment of the trees they should be re-assessed by a suitably qualified and experienced arboriculturist.

This Arboricultural Method Statement has been produced following a review of a proposed development layout for the site based on data provided by the client. Should the development proposals change, this report will need to be updated to ensure all practices described herein are relevant and suitable for the provision of tree protection.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

Middlemarch Environmental Ltd were commissioned by SEP to undertake an Arboricultural Method Statement as part of a planning application for commercial development at a parcel of land situated off of High Street in Rocester, Uttoxeter. A survey of the trees on site and within influencing distance of the boundaries was undertaken on the 4th of August 2021 as part of a Preliminary Arboricultural Assessment (Report Reference: RT-MME-155887-01), which was completed to aid design and avoid unnecessary tree removal.

An Arboricultural Impact Assessment (AIA) (RT-MME-157323-01) was undertaken in accordance with British Standard 5837:2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (hereafter referred to as BS5837). BS5837 sets out a structured assessment methodology to assist in determining which trees would be considered suitable or unsuitable for retention in the context of the proposed development. The Impact Assessment detailed the potential impact that the proposed development will have upon the site's existing tree stock and set out recommendations for the subsequent mitigation or avoidance of impact.

This Arboricultural Method Statement (AMS) confirms the mitigation measures and sets out the method of impact avoidance outlined in the AIA in accordance with BS5837:2012.

This statement details the specific measures to be adopted to ensure the protection of retained trees during the proposed development. Once approved, by the Local Authority Arboricultural Officer, the methods of work described herein will be a requirement of all relevant contractors associated with the development proposals.

1.2 SITE DESCRIPTION

The site under consideration is located at High Street in Rocester, Uttoxeter and centred at Ordnance Survey Grid Reference SK 10805 39318. Tree cover across the site was generally found to be of fair quality and was located adjacent to the boundaries of the site.

The location of the trees surveyed can be found on Middlemarch Environmental Ltd Tree Survey Plan (C155887-01-01). The Tree Retention Plan (C157323-01-01), provided in Section 7 of this report, shows those trees proposed to be removed as part of the planning application. Confirmation of the proposed tree removal should be sought from the Project Arboriculturist or Local Authority prior to undertaking any tree felling or tree work.

1.3 DEVELOPMENT PROPOSALS

The proposed development of the site includes the construction of a new Co-op Food Store with associated hard and soft landscaping.

1.4 DOCUMENTATION PROVIDED

This assessment is based upon the information provided by the client in addition to information collected by Middlemarch Environmental Ltd during the Preliminary Arboricultural Assessment and Arboricultural Impact Assessment. The documents and drawings considered are detailed within Table 1.1.

Author	Document	Drawing Number	Date
Gould Singleton Architects	Proposed Site Plan	21-1875/10b	Mar 2022

Table 1.1: Documentation Provided

2. METHODOLOGY

2.1 DESK STUDY

A desk-based study was undertaken to identify if any of the trees present within or near the site are protected by Tree Preservation Orders (TPOs) or if the site is situated within a Conservation Area.

An online search using the Multi Agency Geographical Information for the Countryside (*MAGIC*) website for statutory conservation sites was also undertaken (where appropriate) to determine the presence of Ancient Woodland within 15.0 metres of the site boundary.

2.2 SURVEY SCOPE

To determine the status of the trees within the site, a full arboricultural survey has been undertaken, assessing the species and status of all trees present. This survey has been carried out in accordance with British Standard 5837:2012 '*Trees in Relation to Design, Demolition and Construction – Recommendations*'.

All trees have been assigned a unique reference number. Individual trees above 75 mm in diameter (at 1.5 m above ground level) have had their position plotted to the Tree Survey Plan. Trees, and hedgerows were visually assessed and a schedule prepared listing:

- Tree number,
- Species,
- Tree height,
- Stem diameter at 1.5 m above ground level (or in accordance with Annex C of BS5837:2012),
- Crown spread (cardinal points where necessary),
- Minimum crown clearance,
- Age class,
- Condition and;
- Preliminary management recommendations (where required).

Measurements for tree height, minimum crown clearance and crown spread were taken to an accuracy of 0.5 m. Stem diameter measurements were recorded to the nearest 10 mm. Any specific observations or management recommendations were also noted. All observations and measurements are included in Appendix A Tree Schedule.

Trees were assessed and assigned one of the following categories:

- **Category U:** Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
- **Category A:** Trees of high quality with an estimated remaining life expectancy of at least 40 years.
- **Category B:** Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
- **Category C:** Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.

Categories A, B and C have further sub-categories with regards to the reasons for tree retention:

- 1: Mainly arboricultural qualities.
- 2: Mainly landscape qualities.
- 3: Mainly cultural values, including conservation.

N.B. Certain category U trees may possess existing or potential conservation value which make them desirable to preserve in the context of wildlife habitat (e.g. areas with limited public access).

2.3 ROOT PROTECTION AREA (RPA)

In order to avoid damage to the roots or rooting environment of retained trees, the RPA has been calculated for each of the Category A, B and C trees in accordance with section 4.6 of BS5837. This is a minimum area

around a tree which is deemed to contain sufficient roots and rooting volume to maintain the tree's viability. Where groups of trees have been assessed, the Root Protection Area has been shown based on the maximum sized tree stem in each 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 individual trees forming the combined group.

Protection of the roots and soil structure within the RPA should be treated as a priority. These figures have been calculated utilising the formulas within Section 4.6 and Annex D of British Standard 5837:2012.

2.4 TREE SCHEDULE

Appendix A details the individual trees and groups found during the assessment and includes the relevant information for each at the time of inspection. General observations of any structural and physiological condition and the presence of any decay or physical defects have also been included. Preliminary management recommendations have also been recorded where appropriate.

2.5 ASSESSMENT LIMITATIONS

This survey has been undertaken in accordance with BS5837 recommendations only. Trees under 75mm in diameter have not been identified in accordance with the guidance. It may therefore be necessary during detailed design to undertake further assessment and accurate positioning of juvenile trees or woody species within tree groups to assist structural calculations for foundation design of structures in accordance with current building regulations and NHBC Chapter 4.2 *Building near Trees*.

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.

2.6 CONDITIONS OF TREE SURVEY

The survey was completed by a suitably qualified and experienced Arboriculturist from ground level only and from within the boundary of the site. Aerial tree inspections or the internal condition of the stem/s or branches was not undertaken at this stage. Evaluation of tree condition given within this assessment applies to the date of survey and cannot be assumed to remain unchanged. It may be necessary to review these within 12 months, in accordance with sound arboricultural practice.

2.7 TREE SURVEY PLAN

The Tree Survey Plan seeks to act as a design tool that shows potential opportunities for inclusion of the existing trees across the site as well as the above and below ground constraints which should be considered during the design process.

2.8 TREE RETENTION PLAN

The Tree Retention Plan identifies which trees are to be retained and incorporated as part of the site development and which are to be removed. The positions of trees and their current crown spread that are to be removed have been shown on the Tree Retention Plan with a dashed outline.

2.9 TREE PROTECTION PLAN

The Tree Protection Plan attached to this report identifies only those trees that are to be retained and incorporated as part of the site development. The Tree Protection Plan identifies the various protection measures required to prevent damage to trees that are to provide long term benefits to the completed site. The Tree Protection Plan also identifies the various working elements of a construction site to confirm any potential impacts are minimised.

All survey data is based on a topographical survey where possible, supplied by the client. Where topographical information has not identified tree positions or Ordnance Survey mapping has been utilised, trees have been positioned using GPS and aerial photography to provide approximate locations in relation to existing surrounding features. Further confirmation of tree locations through a topographical survey of the site is recommended to ensure future design accuracy.

3. STATUTORY PROTECTION

3.1 TREE PRESERVATION ORDER AND CONSERVATION AREA DESIGNATIONS

No direct consultation with the Local Planning Authority, East Staffordshire Borough Council, has taken place, however, it is understood having used the online search facility on the website for the Local Planning Authority, that there are no Tree Preservation Orders that would apply to trees present on, or in close proximity to the assessment site. However, the site is entirely situated within the Rocester Conservation Area and therefore, statutory constraints would apply to the development in respect of trees. Prior to any tree works being undertaken, confirmation of the online information should be sought from the Local Authority.

No works to any trees within the Rocester Conservation Area (i.e. any trees within the study area) are to be carried out without prior submission of a Section 211 notice to the Local Planning Authority (LPA) giving six weeks' notice of the proposed works unless authorised as part of an approved planning application.

Reference to the Multi Agency Geographical Information for the Countryside (MAGIC) website indicates that no ancient woodland is present within a 15.0 m buffer of the survey area.

3.2 PROTECTED SPECIES

Bats

Mature trees often contain cavities, hollows, peeling bark or woodpecker holes which provide potential roosting locations for bats. Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. Consequently, causing damage to a bat roost constitutes an offence.

Generally, should the presence of a bat roost be suspected whilst completing works on any trees on site then an appropriately licensed bat worker should be consulted for advice.

Birds

Trees offer potential habitat for nesting birds which are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties. This legislation makes it an offence to intentionally or recklessly damage or destroy an active bird nest or part thereof.

As the trees on, and adjacent, to the site provide potential habitat for nesting birds all tree work should ideally be completed outside the nesting bird season (Generally March to September).

If this is not possible then the vegetation should be subject to a nesting bird inspection by a suitably experienced ecologist prior to commencement of works. If any active nests are identified then the vegetation, and a defined buffer zone, will need to remain in place until the young have naturally fledged.

4. RESULTS SUMMARY

4.1 PRELIMINARY ARBORICULTURAL ASSESSMENT

Fourteen individual trees and two groups of trees were surveyed as part of the Preliminary Arboricultural Assessment. Trees assessed during the survey are listed as individual trees and groups of trees in the Tree Schedule (Appendix A) in accordance with BS5837:2012 recommendations. Table 4.1 provides a summary of the survey results in terms of categorisation.

BS5837:2012 Category	Tree/ Group Reference
U	T9.
A	T6, T8.
B	T1, T2, T4, T5, T10, T11.
C	T3, T7, T12, T13, T14, G1, G2.

Table 4.1: Summary of Trees and Groups in BS5837:2012 Categories

The site comprised an area of land off of High Street in Rocester which had formally been the garden of a privately-owned residential property. The land had since been left unmanaged and had started to become overgrown with self-seeded trees and bramble in areas. The trees recorded during the survey were typically in fair condition and were situated adjacent to the boundaries of the site.

Two of the yew trees recorded during the survey (T6 & T8) were considered to be of high retention value. Both trees were in good condition and were the larger specimens on site with T6 having the largest stem diameter of the specimens recorded. Both trees had minor deadwood in their crowns as is common with yew trees but were considered to be in good structural condition overall.

Several moderate retention value trees were identified during the survey including four yew trees (T1, T2, T4 & T5), a cherry (T10) and an ash (T11). These specimens were typically in good condition with the cherry and one yew tree (T2) being in fair condition. All of the specimens were visible from outside the site and as such, provided visual amenity value to the immediately adjacent public areas. It should be noted that four of the yew trees (T2, T3, T4 & T5) supported ivy on their stems and in their crowns and would benefit from removal of the ivy.

A single ash tree (T9) was identified during the survey as unsuitable to retain in its current context (Retention Category U) as the tree exhibited defects which reduced its remaining useful life expectancy to less than ten years. T9 had apical and lateral dieback, which was potentially due to ash dieback disease, and was in a state of advanced decline.

The remaining trees and groups recorded during the survey (see Table 4.1) were all considered to be of low retention value as the trees were either too juvenile to be considered higher value or because they had defects which limited their likely future potential.

4.2 ARBORICULTURAL IMPACT ASSESSMENT

Several trees require removal as part of the approved planning application. Trees to be removed are identified on the Tree Retention Plan (C157323-02-01) and listed in Table 4.2. All tree removal should be undertaken prior to the installation of tree protection measures and site occupation.

Tree/ Group Reference	Species	BS5837 Category
T1	Yew	B
T2	Yew	B
T3	Yew	C
T4	Yew	B
T5	Yew	B
T7	Irish yew	C
T8	Yew	A
T9	Ash	U
T10	Cherry	B
T12	Cherry	C
T13	Cherry	C
T14	Yew	C
G2*	Cherry laurel	C
<u>Key</u> *: Partial removal of trees within group.		

Table 4.2: Trees to be Removed

Before any tree works are undertaken confirmation of the agreed tree removal and confirmation of the presence of the statutory constraints should be sought from the Local Authority. All tree works are to be completed by suitably qualified and insured arboricultural in accordance with BS3998:2010 'Tree Work – Recommendations'.

5. ARBORICULTURAL METHOD STATEMENT

5.1 INTRODUCTION

The following sections of this report detail the specific measures to be adopted to ensure the protection of retained trees during the proposed development and should be read in conjunction with the Tree Survey Plan, Tree Retention Plan and Tree Protection Plan. This document also details the specific pruning requirements for the site and identifies the correct method of working near trees in accordance with BS5837:2012 '*Trees in relation to design, demolition, and construction – Recommendations*'.

The site contractor must ensure that they read and understand all the following sections prior to commencement of any onsite works.

5.2 TREE PRUNING

Pruning works will be required to retained trees to provide clearance for construction works and to minimise the likelihood of accidental branch damage occurring. The trees requiring pruning are identified on the Tree Protection Plan and the required pruning works are described in Table 5.1

Tree/ Group Reference	Species	BS5837 Category	Pruning Works
T6	Yew	A	Raising of the canopy extents which overhang the proposed parking to provide 3m clearance from ground level.
T11	Ash	B	Raising of the canopy extents which overhang the proposed hard surfacing to provide 4m clearance from ground level.

Table 5.1: Trees to be Pruned

The extent of pruning required will be confirmed in a pre-commencement site meeting involving the Project Arboriculturist, Site Manager and Contractors. All tree pruning works should be completed in accordance with the current best practice guidance set out within BS3998:2010 '*Tree Work – Recommendations*' by suitably qualified and insured arboricultural contractors.

All tree work should be completed prior to the installation of the tree protection measures detailed in this report and before site occupation unless delayed, to coincide with the seasons or to allow nesting birds to fledge in accordance with the Wildlife and Countryside Act WCA 1981 (as amended).

5.3 CONSTRUCTION EXCLUSION ZONE

The Construction Exclusion Zone (CEZ) is the area considered necessary to ensure that the tree roots and canopy are protected from damage during the construction processes. The extent of the CEZ is based upon guidance within BS5837:2012 '*Trees in relation to design, demolition, and construction – Recommendations*', and encompasses the Root Protection Area (RPA) and or tree canopy (whichever is the greatest).

The Construction Exclusion Zones are always to be afforded protection and no works that cause compaction of the soil or severance of tree roots, except when undertaken in accordance with the guidance provided within this document, will be undertaken within any exclusion zone.

The exclusion zones are to be defined on site throughout the course of the development using protective barriers based upon guidance within BS5837:2012 '*Trees in relation to design, demolition, and construction – Recommendations*'.

5.4 PROTECTIVE BARRIERS

Protective barriers will be erected prior to the commencement of any site works (e.g., before any materials or machinery are brought on site or the stripping of topsoil commences) and signs will be installed on the protective barriers to inform site contractors of the importance of the tree protection measures in accordance with the Conditions agreed as part of the planning consent for the site (Town and Country Planning Act 1990).

The protective barriers are to be constructed in accordance with the specification detailed in BS5837:2012 '*Trees in relation to design, demolition, and construction – Recommendations*'. Fencing should be erected prior to site occupation and inspected by the Project Arboriculturist to ensure they are complete, robust, and sufficiently protect the CEZ for the retained trees present on site. Any variation to the specification of the protective barrier will be agreed with the Local Planning Authority Arboricultural Officer.

The proposed location of the protective barriers is identified on the Tree Protection Plan attached to this Arboricultural Method Statement. The Local Planning Authority will be notified in writing once this inspection has been undertaken (if required).

The barriers will remain in place until completion of the construction phase of the development. Barriers will only be removed in agreement with the Project Arboriculturist or Local Planning Authority once the main construction works have been completed and prior to soft landscaping works. Other than works detailed within this method statement or approved in writing by the Local Planning Authority no works, including storage or dumping of materials, shall take place within the Construction Exclusion Zone as defined by the protective barrier.

5.5 PERMANENT AND TEMPORARY GROUND PROTECTION MEASURES

The proposed hard surfaces installed within the Root Protection Areas (RPAs) of retained trees will be constructed following a no-dig methodology and this will act as permanent ground protection which can be used to provide working space for the construction of the hard surfaces within the RPAs. All ground protection installed must be capable of supporting the expected loads in accordance with Structural Engineers recommendations and avoid compaction and damage to the soil.

5.6 ACCESS DETAILS

Pedestrian and construction traffic will access the site via the existing road and footpath network. Tree protection barriers will be installed adjacent to the proposed access point to protect nearby trees from potential impact damage and to prevent vehicles from accidentally encroaching onto areas of unprotected ground.

5.7 SITE COMPOUND, MATERIALS STORAGE AND CONTRACTORS CAR PARKING

At the time of writing, the locations of the site compound, material storage area and contractors' parking had not been formally identified, however, sufficient space is present within the site to accommodate these outside of Construction Exclusion Zones and their establishment is unlikely to result in harm to retained trees. Should the demand for car parking exceed the available area alternative offsite parking arrangements will be made.

5.8 INFRASTRUCTURE REQUIREMENTS

New underground services will primarily be located through the proposed access point and car park, outside of Root Protection Areas of retained trees. Connections will be made into existing services outside of the Construction Exclusion Zones surrounding retained trees.

If any underground services are to be installed within the RPA of a retained tree, then the Project Arboriculturist will be consulted. The methodology for the installation, maintenance or removal of any services within a RPA will be in accordance with NJUG Volume 4 '*Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees*'. This will include hand-dug "broken" trenches to ensure that maximum protection is given to tree roots.

5.9 DEMOLITION, HARD SURFACE REMOVAL & REMOVAL OF STRUCTURES

There are no existing buildings, structures or hard surfaces present on site that require demolition or removal within the Construction Exclusion Zone defined by protective fencing, or within the Root Protection Areas (RPAs) of retained trees.

5.10 NEW HARD SURFACES

New areas of hard surfaces are to be installed within the Root Protection Areas (RPAs) of T6 and T11. All new hardstanding within the RPAs of T6 and T11 will be installed according to a no-dig construction methodology, as detailed below:

1. Prior to works commencing, the areas of 'no-dig' hardstanding will be marked out.
2. The existing ground cover and vegetation present within the area will be carefully stripped / trimmed using handheld tools.
3. The exposed soil will be covered with a permeable geotextile membrane. The geotextile layer shall be laid in accordance with manufacturer's recommendations and temporarily retained with pins, stakes, or weights.
4. A cellular confinement system will then be installed and fixed in position in accordance with the manufacturer's recommendations. The cellular confinement system used should be specified by the manufacturer or engineer, appropriate for tree root protection in car parking or pedestrian areas.
5. The cellular confinement system will then be filled with the manufacturer's specified aggregate.
6. All plant movements involved in filling the cellular confinement system with aggregate shall be undertaken from outside the RPAs and crowns of retained trees.
7. The infill aggregate will then be lightly rolled or whacked to ensure cohesion with the cellular confinement system.
8. The desired permeable and gas porous finished surface shall then be installed.

All works to install new hardstanding according to no-dig methodology shall be carried out under supervision of the Project Arboriculturist.

5.11 SITE GRADIENTS

No alterations of soil level will take place within the Construction Exclusion Zones as defined by the protective barriers to prevent damage to retained trees.

If site gradient alterations within the RPA of any retained tree are required, then the Project Arboriculturist will be consulted for advice.

5.12 CONSTRUCTION OF STRUCTURES WITHIN THE RPA/CONSTRUCTION EXCLUSION ZONE

The following details will be adhered to for the construction of retaining walls within the Root Protection Areas of retained trees.

Dwarf Retaining Walls

The retaining walls lie within the footprint of existing walls on site and as such the works are unlikely to significantly impact the trees, nevertheless the construction of the retaining walls will be undertaken under arboricultural supervision.

5.13 SOFT LANDSCAPING

All soft landscaping within the exclusion zone will be undertaken by hand and in accordance with BS8545:2012 *Trees: from nursery to independence in the landscape- Recommendations*.

A 500 mm radius from any tree stem will remain uncovered by turf or other planting to allow penetration of water and air into the soil. A propriety mulch will be applied to a depth of 50mm to 100mm to inhibit weed and growth, reduce groundwater evaporation during the drier months, resist and mitigate soil compaction, reduce maintenance requirements and act as a slow-release fertilizer.

5.14 USE OF HERBICIDES

Any herbicide used during the development works shall be systemic, spot applied, and mixed according to manufacturers' recommendations.

5.15 ON SITE MONITORING REGIME & CONTACT DETAILS

All operations will be monitored by the main contractor. The main contractor will ensure that all works within this document are followed (this will be built into the contract specification).

If any issues arise in relation to the retained trees the Project Arboriculturist will be contacted for advice. The Project Arboriculturist for the development is:

Name: Stefan Harrison
Position: Arboricultural Consultant
Company: Middlemarch Environmental Ltd
Address: Triumph House, Birmingham Road, Coventry, CV5 9AZ
Telephone: 01676 525 880
Mobile: 07538 111 990

Induction and Personnel Awareness

Details of tree protection and methods of working around trees will be included within site inductions to new members of site staff. A copy of this document and the related Tree Protection Plan will be kept on site and referred to by operatives working near retained trees.

Monitoring/Audits

A pre-commencement site meeting will be arranged between the contractor, Project Arboriculturist, and any other interested party. During this meeting, all outstanding items will be finalised, and these will be communicated to the Local Planning Authority upon request.

An inspection audit will be undertaken by the Project Arboriculturist once the protective measures have been installed to ensure they provide the level of protection required for retained trees. Feedback will be provided to the Local Planning Authority Arboricultural Officer on completion of this visit and monthly audits of the tree protection measures will be undertaken by the Project Arboriculturist to ensure they remain in position and fit for purpose.

Works Requiring Arboricultural Supervision

The following aspects of the development will be completed under supervision of the Project Arboriculturist:

- No-dig construction of new hard surfaces within the RPAs of T6 and T11.
- Construction of the retaining walls where they are within the RPAs of T6 and T11.
- Construction of the retaining walls within RPAs of T6 and T11.

5.16 USE OF SUBCONTRACTORS

The Principal Contractor will be responsible for ensuring sub-contractors do not carry out any process or operation that is likely to adversely impact upon any tree on site. If any issues arise in relation to the retained trees the Project Arboriculturist will be contacted for advice.

5.17 RESPONSIBILITIES

It will be the responsibility of the Principal Contractor to ensure that the planning conditions attached to the planning consent are always adhered to and that a monitoring regime regarding tree protection is adopted on site.

The Principal Contractor will be responsible for contacting the Local Planning Authority should any issues be raised related to the trees on site.

If pruning works to trees beyond the agreed scope within this Method Statement are required at any time, then permission must be sought from the Local Planning Authority prior to commencement. All works must be carried out in accordance with BS3998:2010 *Tree Work - Recommendations*.

The Principal Contractor will ensure the build sequence is appropriate to ensure that no damage occurs to retained trees during the construction processes. Protective measures will remain in position until completion of the construction phase of development and will only be removed to allow the commencement of soft landscaping works.

The protection measures and signs will always be maintained in position and checked daily by a designated person on site under the responsibility of the Principal Contractor.

5.18 GENERAL PRECAUTIONS

No materials that are likely to have an adverse effect on tree health such as fuel oil, bitumen or cement will be stored or discharged within 10.0 m of any retained tree.

6. REFERENCES AND BIBLIOGRAPHY

British Standards Institution. (2012). *British Standard 5837:2012, Trees in relation to design, demolition and construction – Recommendations*. British Standards Institution, London.

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Littlefair P. (2011). *Site layout planning for daylight and sunlight: a guide to good practice* (BR 209). British Research Establishment, Watford.

National House Building Council. (2020). *NHBC Standards 2020: Chapter 4.2 - Building Near Trees*. NHBC, Milton Keynes.

NJUG Volume 4 '*Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees*'

7. DRAWINGS & APPENDICES

Drawing Number C155887-01-01 – Tree Survey Plan

Drawing Number C157323-01-01 – Tree Retention Plan

Drawing Number C157323-02-01 – Tree Protection Plan

Appendix A: Tree Schedule

Appendix B: Tree Protection Fencing Sign

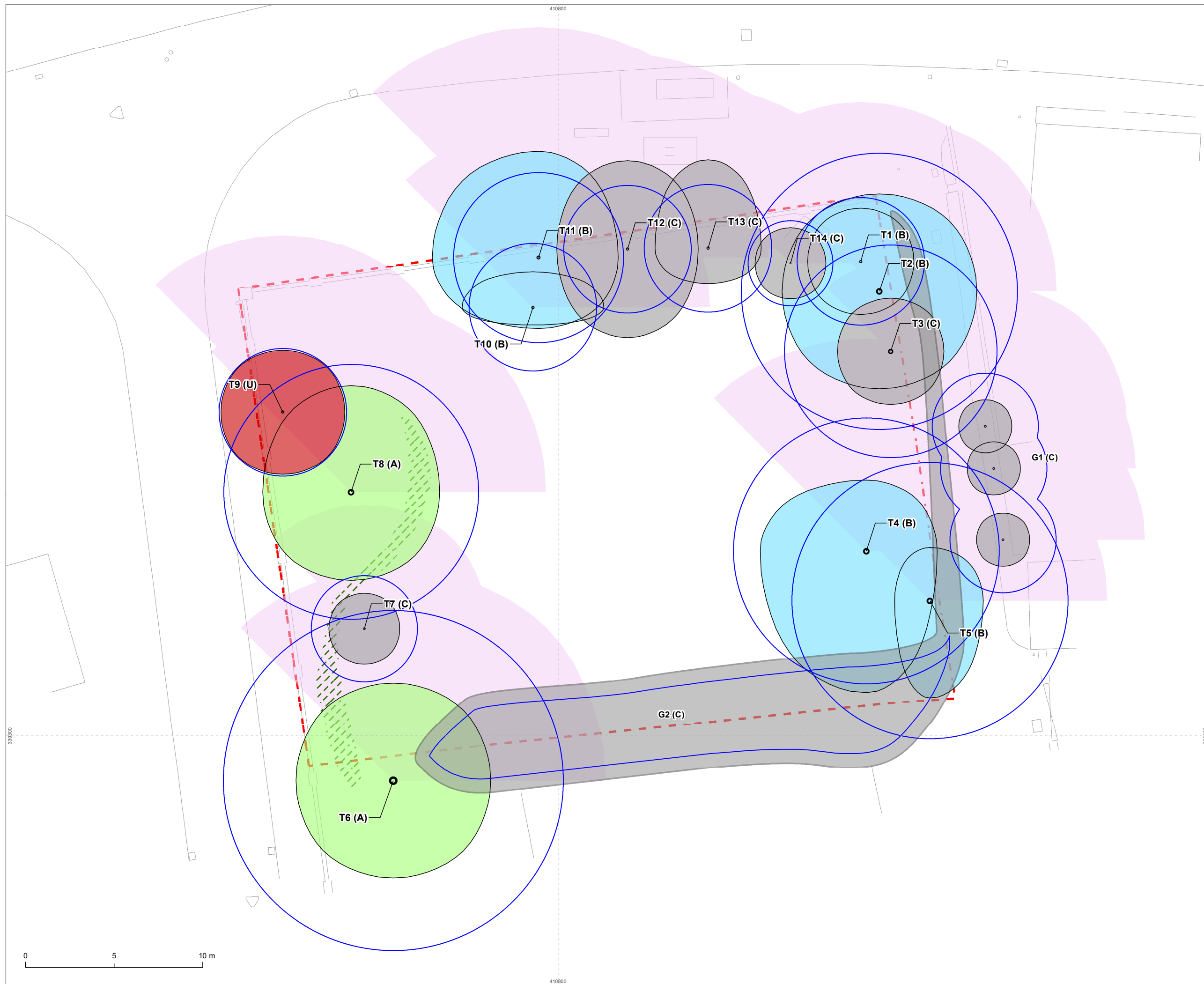
Legend

- Tree location and stem diameter
- Category A
- Category B
- Category C
- Category U
- Current canopy extent
- Root Protection Area
- Indicative tree shadow
- Area of self-set trees
- Site boundary

T - Tree
G - Tree group

The original of this drawing was produced in colour - a monochrome copy should not be relied upon

NOTES
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Project High Street, Rocester, Uttoxeter	
Drawing Tree Survey Plan	
Client Pegasus Planning	
Drawing Number C155887-01-01	Revision 00
Scale @ A3 1:200	Date August 2021
Approved By DM	Drawn By VO



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Legend

- Tree location and stem diameter
- Category A
- Category A to be removed
- Category B
- Category B to be removed
- Category C
- Category C to be removed
- Category U
- Category U to be removed
- Current canopy - tree to be removed
- Current canopy - tree to be retained
- Root Protection Area
- Indicative tree shadow
- Area of self-set trees
- Site boundary

T - Tree
G - Tree group

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NOTES

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Project High Street, Rocester, Uttoxeter

Drawing Tree Retention Plan

Client Pegasus Planning

Drawing Number C157323-01-01	Revision 00
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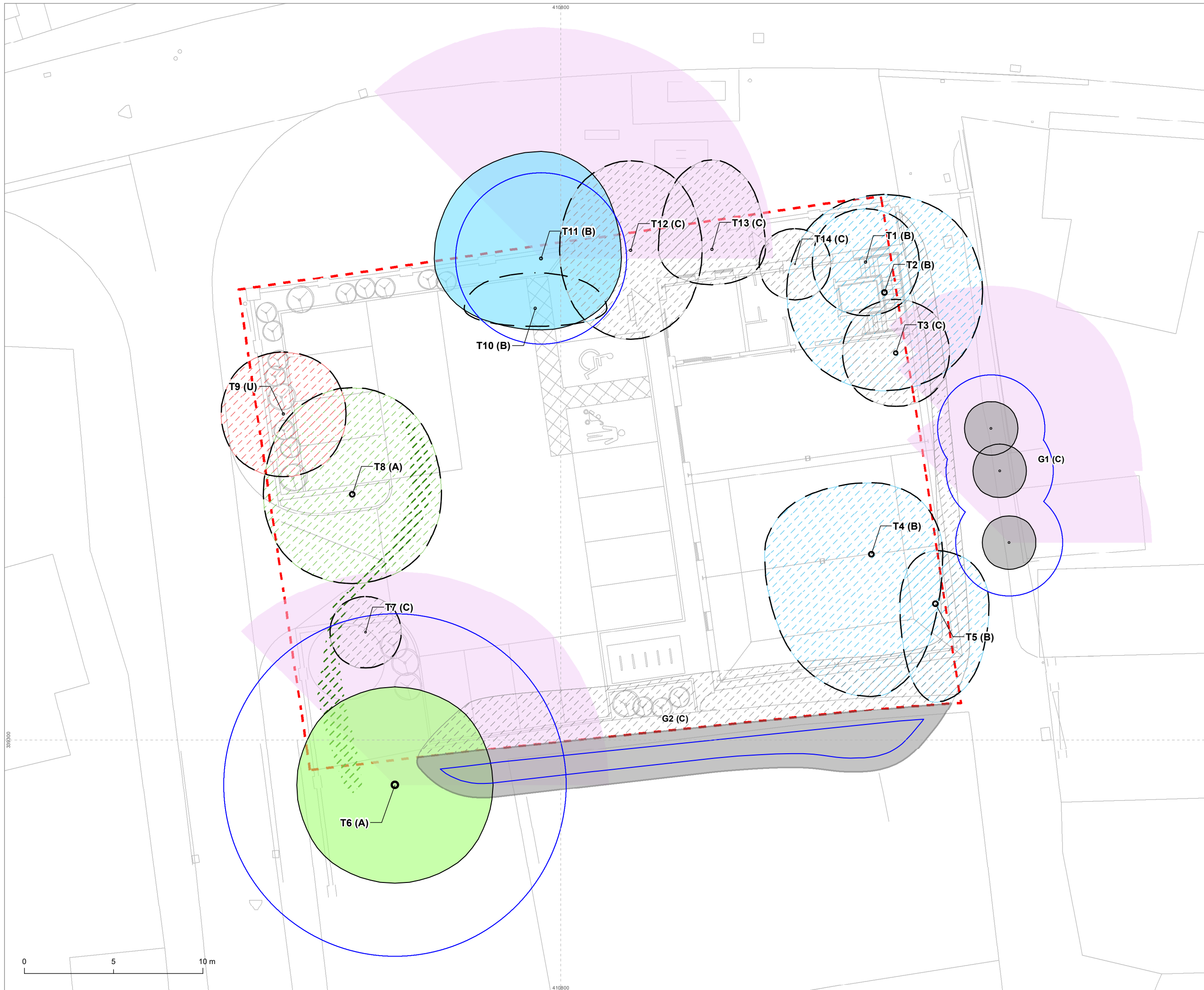
Scale @ A3 1:200	Date February 2022
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Approved By SKH	Drawn By VO
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Legend

- Tree location and stem diameter
- Category A
- Category B
- Category C
- Current canopy - tree to be retained
- Root Protection Area
- Tree protection barrier subject to BS:5837
- Tree protection barrier (prior to no-dig construction of new hard surfaces)
- Tree protection barrier (post no-dig construction of new hard surfaces)
- ▨ No-dig construction
- Indicative tree shadow
- - - Site boundary
- # Tree pruning works required

T - Tree
G - Tree group

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Project
High Street, Rocester, Uttoxeter

Drawing
Tree Protection Plan

Client
Pegasus Planning

Drawing Number C157323-02-01	Revision 00
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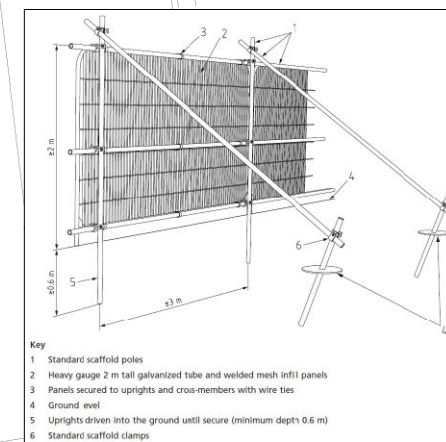
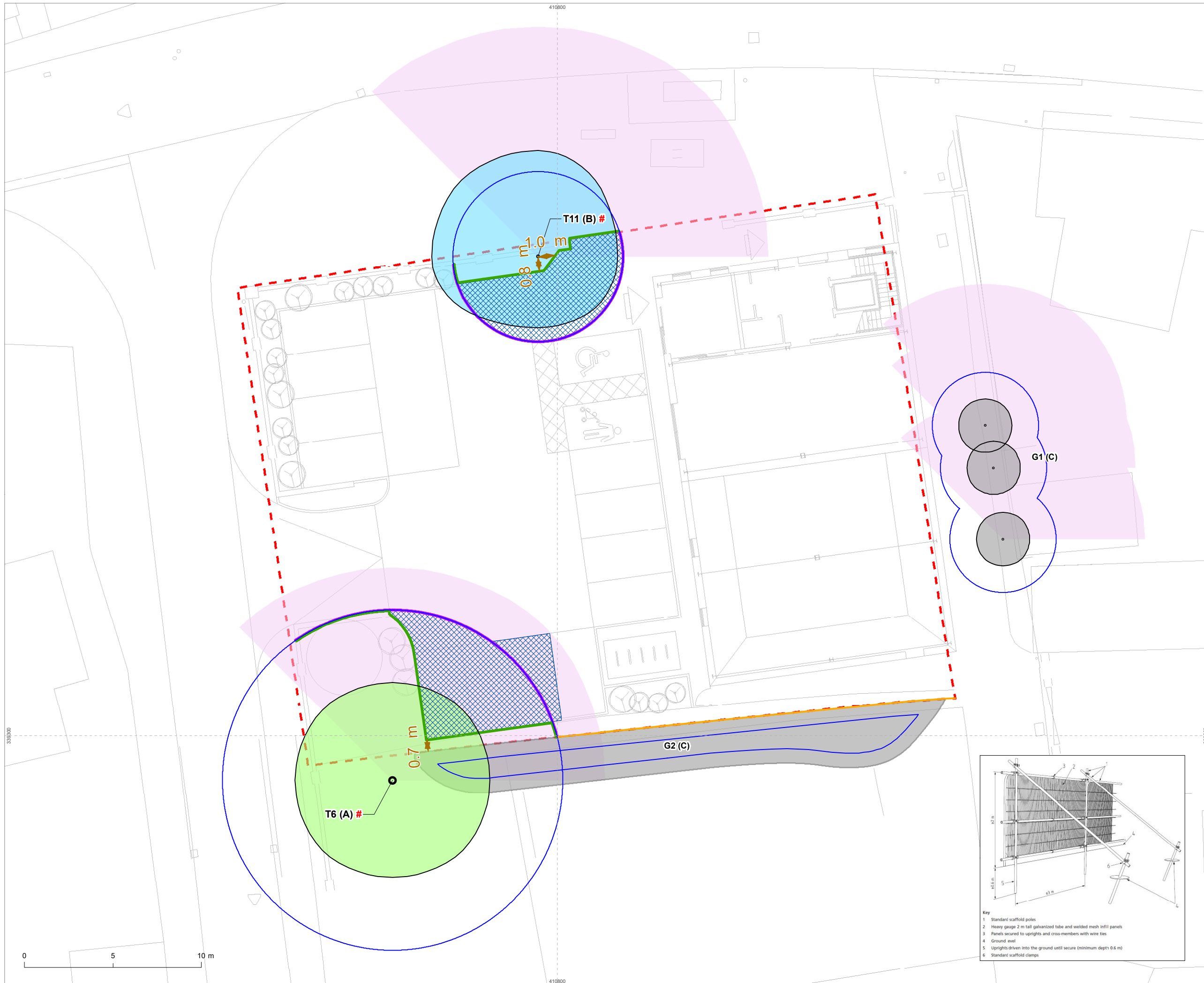
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Approved By SKH	Drawn By GT
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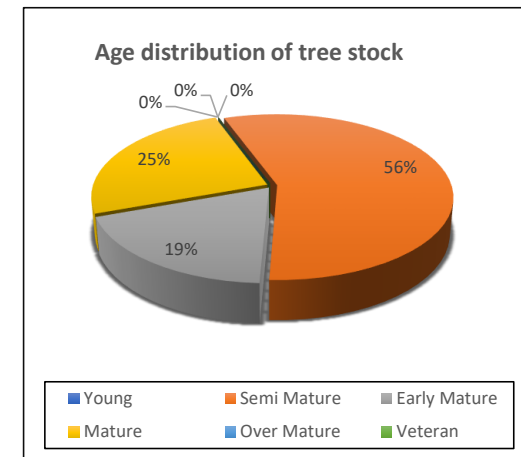
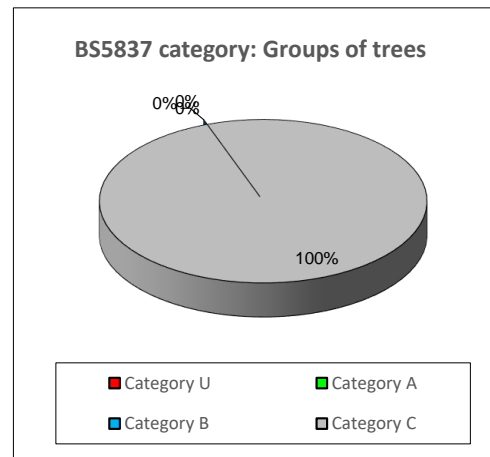
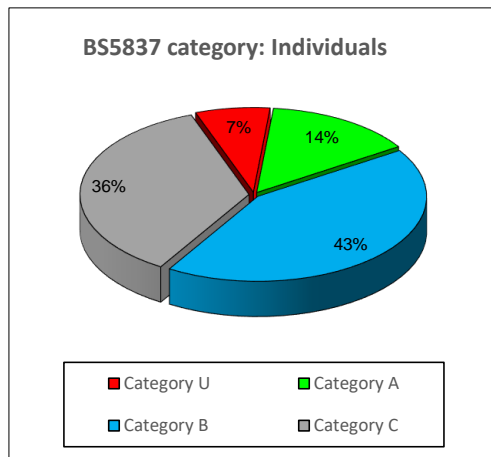


Appendix A - Tree Schedule

Measurements	Age Class	Overall Condition	Root Protection Area (RPA)
Height - estimated from ground level (m).	YNG: Young trees up to ten years of age.	G - Good: Trees with only a few minor defects and in good overall health needing little, if any attention.	<ul style="list-style-type: none"> • The RPA column gives the required area (m²). • The RPA Radius column gives the radius (m) of an equivalent circle. • The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the required rooting area in order for a tree to be retained.
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837.	SM: Semi-mature, trees less than 1/3 life expectancy.	F - Fair: Trees with minor, but rectifiable, defects or in the early stages of stress from which it may recover.	
Crown - crown spread estimated radially from the main stem (m).	EM: Early mature, trees 1/3 – 2/3 life expectancy.	P - Poor: Trees with major structural and/or physiological defects such that it is unlikely the tree will recover in the long term.	
Abbreviations Est - Estimated stem diameter Avg - Average stem diameter Max - Maximum stem diameter	M: Mature trees, over 2/3 life expectancy.	D - Dead: Trees no longer alive. This could also apply to trees that are dying and unlikely to recover.	
	OM: Over mature, declining or moribund trees of low vigour.	In the assessment, of the BS category, particular consideration has been given to the following <ul style="list-style-type: none"> • The health, vigour and condition of each tree • The presence of any structural defects in each tree and its future life expectancy • The size and form of each tree and its suitability within the context of a proposed development • The location of each tree relative to existing site features e.g. its screening value or landscape features 	
	V: Veteran, tree possessing certain attributes relating to veteran trees.	<ul style="list-style-type: none"> • Age class • Life expectancy 	

Structural Condition
<p>The following has been considered when inspecting structural condition:</p> <ul style="list-style-type: none"> • The presence of fungal fruiting bodies around the base of the tree or on the stem, as they could possibly indicate the presence of possible internal decay. • Soil cracks and any heaving of the soil around the base. • Any abrupt bends in branches and limbs resulting from past pruning. • Tight or weak 'V' shaped forks and co-dominant stems. • Hazard beam formations and other such biomechanical related defects (as described by Claus Mattheck, Body Language of Trees HMSO Research for Amenity Trees No. 4 1994). • Cavities as a result of limb losses or past pruning. • Broken branches or storm damage. • Canker formations. • Loose or flaking bark. • Damage to roots. • Basal, stem or branch / limb cavities. • Crown die-back or abnormal foliage size and colour. • Any changes to the timing of normal leaf flush and leaf fall patterns.

Quality Assessment of Retention Category
<p>Category U - Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.</p>
<p>Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years.</p>
<p>Category B - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.</p>
<p>Category C - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.</p>
<p>Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value</p>



Appendix A - Summary

	Individual Trees	Totals	Tree Groups	Totals
Category U	T9	1		0
Category A	T6, T8	2		0
Category B	T1, T2, T4, T5, T10, T11	6		0
Category C	T3, T7, T12, T13, T14	5	G1, G2	2
	Total	14	Total	2

	Hedgerows	Totals	Woodlands	Totals
Category U		0		0
Category A		0		0
Category B		0		0
Category C		0		0
	Total	0	Total	0

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
T1	Yew	9.0	2.0	1	300	3.0	3.0	3.0	3.0	SM	F	G	41	3.6	B 1	Hard surfaces within the rooting area Minor deadwood in the crown Pruning wounds observed
T2	Yew	10.0	2.0	1	650	5.5	5.5	5.5	5.5	EM	F	F	191	7.8	B 1	Branch stubs observed Hard surfaces within the rooting area Included unions observed Minor deadwood in the crown Dense ivy in the crown Dense ivy on the stem Ivy restricts inspection Pruning wounds observed
T3	Yew	5.0	3.0	1	500	3.0	3.0	3.0	3.0	SM	F	P	113	6.0	C 1	Apical dieback Conservation value Dense ivy in the crown Dense ivy on the stem Hard surfaces within the rooting area Included unions observed Ivy restricts inspection Minor deadwood in the crown Tree is showing signs of decline Lateral dieback
T4	Yew	12.0	1.0	1	620	4.0	4.0	8.0	6.0	M	G	G	177	7.5	B 1	Apical dieback Branch stubs observed Hard surfaces within the rooting area Dense ivy in the crown Light ivy on stem Minor deadwood in the crown
T5	Yew	10.0	1.0	3	270 270 500	3.0	3.0	55.0	2.0	M	F	G	191	7.8	B 1	Apical dieback Branch stubs observed Epicormic growth observed in the crown Hard surfaces within the rooting area Included unions observed Minor deadwood in the crown Dense ivy in the crown Dense ivy on the stem Ivy restricts inspection Pruning wounds observed
T6	Yew	12.0	2.0	1	790	5.5	5.5	5.5	5.5	M	G	G	290	9.6	A 1	Branch stubs observed Minor deadwood in the crown Typical crown form
T7	Irish yew	7.0	2.0	12	250	2.0	2.0	2.0	2.0	SM	F	F	28	3.0	C 1	Epicormic growth on the main stem Included unions observed

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
T8	Yew	11.0	0.0	1	600	6.0	5.0	5.0	5.0	M	G	G	163	7.2	A 1	Epicormic growth observed in the crown Branch stubs observed Building within the rooting area Included unions observed Hard surfaces within the rooting area Minor deadwood in the crown Storm damage observed
T9	Ash	10.0	2.0	1	300	3.5	3.5	3.5	3.5	SM	F	P	41	3.6	U	Apical dieback Branch stubs observed Hard surfaces within the rooting area Lateral dieback Minor deadwood in the crown Tree is in heavy decline
T10	Cherry	10.0	0.5	1	300	2.0	4.0	1.0	4.0	EM	F	F	41	3.6	B 1	Branch stubs observed Minor deadwood in the crown No obvious defects observed
T11	Ash	13.0	3.0	1	400	6.0	4.5	4.0	6.0	SM	F	G	72	4.8	B 1	Apical dieback Branch stubs observed Hard surfaces within the rooting area Minor deadwood in the crown No obvious defects observed
T12	Cherry	11.0	2.0	1	300	5.0	4.0	5.0	4.0	EM	F	G	41	3.6	C 1	Apical dieback Building within the rooting area Dense ivy in the crown Dense ivy on the stem Hard surfaces within the rooting area Included unions observed Lateral dieback Limited inspection due to ivy Minor deadwood in the crown
T13	Cherry	9.0	2.0	1	280	5.0	3.0	2.0	3.0	SM	F	P	41	3.6	C 1	Apical dieback Dense ivy in the crown Dense ivy on the stem Building within the rooting area Hard surfaces within the rooting area Lateral dieback Minor deadwood in the crown Limited inspection due to ivy Tree is showing signs of decline
T14	Yew	7.0	1.0	1	180	2.0	2.0	2.0	2.0	SM	F	P	18	2.4	C 1	Apical dieback Branch stubs observed Hard surfaces within the rooting area Dense ivy in the crown Dense ivy on the stem Tree is showing signs of decline Monitor Tree for improvement as it is showing signs of terminal decline

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
G1	Holly	8.0	3.0	-	250	1.5	1.5	1.5	1.5	SM	F	F	28	3.0	C 1,2	Branch stubs observed Building within the rooting area Conservation value Group is located off site but overhangs the study area Group is sparse in areas Hard surfaces within the rooting area Included unions observed Minor deadwood in the crowns Provides screening Pruning wounds observed
G2	Cherry laurel	7.0	0.0	-	60	1.5	1.5	1.5	1.5	SM	G	G	3	0.9	C 1,3	Conservation value Hard surfaces within the rooting area Minor deadwood in the crowns Provides screening



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