Frank Shaw Associates Limited

Former Deighton Centre, Deighton

Arboricultural Method Statement

September 2023

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

Rev	Issue Status	Prepared / Date	Approved/Date
-	Final	EC / 24.08.23	NC / 25.08.23
A	Final	EC / 04.09.23	NC / 04.09.23
B	Final	EC / 12.09.23	NC / 12.09.23
C	Final	EC / 27.09.23	NC / 27.09.23

CONTENTS

TABLES

FIGURES

PLANS

APPENDICES

1.0 INTRODUCTION

1.1 This Arboricultural Method Statement (AMS) has been prepared by FPCR Environment and Design Limited on behalf of Frank Shaw Associates Limited to provide the methods of protection for retained trees located at the Former Deighton Centre, Deighton (hereafter referred to as 'the site').

1.2 This statement should be read in conjunction with the Arboricultural Assessment produced by FPCR Environment and Design, dated September 2023 which included an assessment of any impact to the tree cover to allow for the construction of a proposed SEMH (Social Emotional Mental Health) School.

1.3 A tree survey in accordance with the guidance contained within British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' (hereafter referred to as BS5837) was undertaken by FPCR Environment and Design Limited on 22nd November 2023. All detailed information on the individual trees recorded can be found in Appendix A – Tree Schedule.

1.4 This AMS details the methodology by which the construction operation will be carried out, whilst safeguard trees in a satisfactory condition during the proposed works. This method statement sets out a definitive account for the treatment of retained trees during the construction operation.

Limitations

1.5 The Method Statement is concerned solely with arboricultural issues related to the site referenced only.

1.6 Offsite drainage works have not been discussed within this AMS, and should these works have the potential to impact any trees identified within the submitted Arboricultural Assessment they should be detailed within a separate AMS.

1.7 Any changes in ground level, or excavations near to trees not detailed within this AMS has the potential of adversely affecting the stability and physical condition of the retained trees and as such, in advance of any operations not detailed in this Method Statement and in any instance where full compliance cannot be guaranteed. The project arboricultural consultant should be contacted immediately, and further examinations would be required.

2.0 TREE PROTECTION PROGRAMME

2.1 The following table sets out the proposed timeline for Tree Protection measures along with Key Appointment, Supervision and Monitoring Stages of the Arboricultural Clerk of Works.

Table 1: Timeline of Tree Protection

Timetable	Actions	Arboricultural Clerk of Works (ACoW) requirements
Pre-commencement site meeting	Pre-commencement site meeting prior to the start of works on site.	Site meeting / Toolbox talk by ACoW (refer to Section 3)
Upon approval of the Application	Undertake tree removal as detailed on Tree Retention Plan (Drawing no. 11376-T-02)	Trees to be marked up in, accordance with the approved Tree Retention Plan, using fluorescent marker spray for ease of identification. Tree Surgeon to be present where possible (refer to Section 4)
Prior to construction operations	Erect tree protection fencing as detailed on Tree Protection Plan (Drawing no. 11376-T-03 & 11376-T-04)	Fencing positions to be marked out and pegged (where applicable) by the ACoW to ensure that all fencing is installed in the correct positions (refer to Section 5)
Commence Construction Works		
Prior to the Earthworks within Supervision Zones **Dates TBC during Pre-commencement site meeting and in line with construction program**	Supervision of removal of existing hard surfacing and earthworks within the RPA of retained trees	ACoW to supervise removal of existing hard surfacing and earthworks within the RPA of retained trees (refer to Section 6)
Construction Works Complete		
Prior to Landscape Operation	Removal of Tree Protective Fencing to allow for landscape operation	Site meeting with ACoW to identify any pruning works required to retained trees to allow for landscape operation and check if all Tree Protective Fencing has been removed and in doing so no damage has occurred to retained trees. (refer to Section 7)
Prior to construction of Forest School **Dates TBC during Pre-commencement site meeting and in line with construction program**	Site meeting with contractors to mark out position of Forest School and determine necessary tree removal, pruning and tree protection measures within G10	Site meeting with ACoW to mark out position of Forest School, mark trees for removal, identify any pruning works required to retained trees and discuss tree protection measures within G10 (refer to Section 8)

Timetable	Actions	Arboricultural Clerk of Works (ACoW) requirements
Prior to use or occupations	Assessment of retained trees	ACoW to review the relationship between retained trees and the new development to assess the condition of retained trees and prepare a schedule of tree works (refer to Section 10)

3.0 APPOINTMENT OF ARBORICULTURAL CLERK OF WORKS

3.1 The Site Manager / Project Manager will be responsible for appointing an 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.

3.2 An initial site meeting prior to starting any works 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.

3.3 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.

3.4 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 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;
- Discussion on particular methods of working near the trees as outlined in this Method Statement;

3.5 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.

3.6 The Arboricultural Clerk of Works will also periodically verify compliance with this AMS and sign-off elements of the work as various stages of the development commence as identified below. This shall be recorded using an online form which the Arboricultural Clerk of Works can share with the client and LPA upon request.

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

- Pre-commencement site meeting and Toolbox talk to be carried out.
- Marking trees to be removed 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)**
- Arboricultural Clerk of Works to sign off the Tree Protection measures prior to works starting on site **(to follow pre-commencement meeting)**
- Arboricultural Clerk of Works to be present to supervise removal of existing hard surfacing and earthworks within the RPA of retained trees **(Dates TBC during Pre-commencement site meeting and in line with construction program)**

- Site meeting with landscape contractors to discuss works within RPA of retained trees and identify any pruning works required, Tree Protection Fencing will also be removed in agreement with the Arboricultural Clerk of Works, **(Dates TBC during Pre-commencement site meeting and in line with construction program)**
- Site meeting to mark out position of Forest School mark trees for removal, identify any pruning works required to retained trees and discuss tree protection measures within G10 **(Dates TBC during Pre-commencement site meeting and in line with construction program)**
- Monthly visits 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.

4.0 TREE WORK

4.1 The Tree Retention Plan (11376-T-02) identify the trees to be removed and includes an overlay of the layout to assist in identifying the relationship and any potential conflicts between the proposals and the existing trees.

4.2 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.

4.3 All agreed tree removal once approved, will need to be undertaken prior to construction operations commencing, so that tree protection fencing can be erected in the positions demonstrated on the Tree Protection Plan (11376-T-03 & 11376-T-04).

4.4 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.

4.5 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.

4.6 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.

5.0 TREE PROTECTION

5.1 Tree protection fencing will be installed prior to any construction works on site, in the positions shown on the Tree Protection Plan (11376-T-03 & 11376-T-04) and will remain in situ throughout the construction phase.

5.2 The position of the Tree Protective Fencing shall be measured out using the dimensions indicated and marked with highly visible fluorescent paint and / or marker pegs / stakes, where deemed necessary.

5.3 This Tree Protection Fencing will comprise a Heras HSG151 panel framework on feet blocks with a stabilising strut secured with ground pins. An example of this has been illustrated below in Figure 1 and a specification provided as Appendix B.

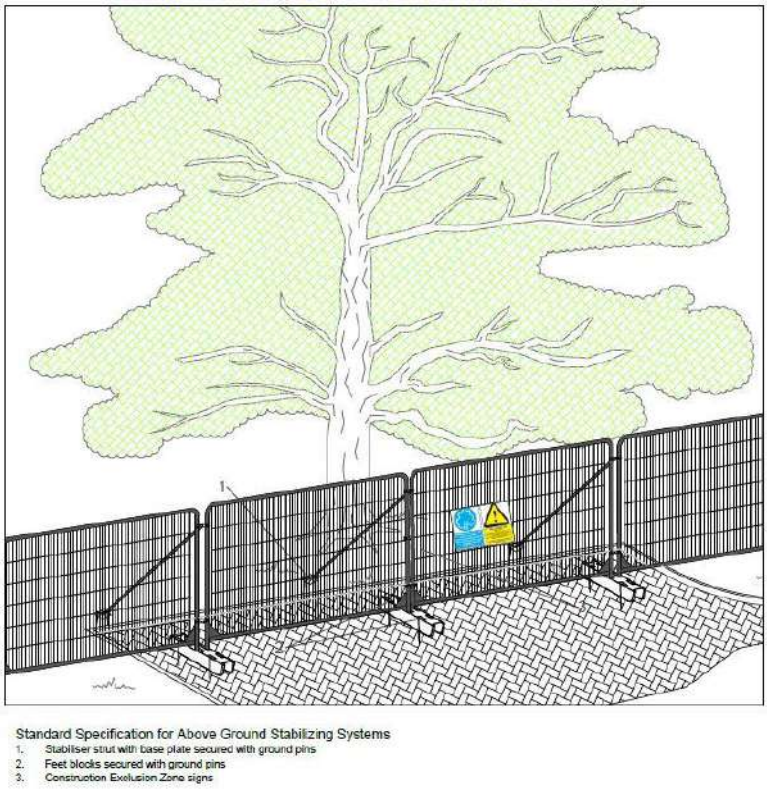


Figure 1: Tree Protection Fencing Specification

5.4 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.

5.5 Tree Protection Fencing and work exclusion zones will be clearly marked using appropriate signage, an example of which has been included as Appendix C. 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.

5.6 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 monthly inspections to be carried out by the Arboricultural Clerk of Works. Records of weekly and monthly checks should be collected which can be shared with the LPA on request.

5.7 Following the completion of all 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.

6.0 WORKS WITHIN ROOT PROTECTION AREAS

Removal of Hard surfacing

6.1 Based on the General Arrangement Plan, hard surfacing within the RPA of T9, T10, G13 and G15, is to be removed to allow for landscaping, with the area becoming either green space or situated within a reinforced earth slope.

6.2 To minimise any potential damage to these trees during this operation the removal of existing hard surfacing should be carried out using the methodology set out below and be supervised by an appointed Arboricultural Clerk of Works.

- Tree protection fencing should be repositioned as shown on the Tree Protection Plan as a solid orange line.
- The removal of existing hard surfacing should be caried out using the smallest practical size excavator which will be positioned on existing hardstanding. No machinery is to be positioned on unsurfaced ground within the RPA of retained tree.
- The surface will be broken up and uplifted using an excavator moving away from the retained trees. There should be no excavation into soil beneath the existing subbase for the hard surfacing.
- Waste material will not be stored on unsurfaced ground within the RPA of retained trees and should be disposed in skips positioned on areas of existing hard standing.
- Any exposed roots shall be wrapped with hessian material, which is to be kept damp, until the area can be back filled with topsoil.
- Tree Protection Fencing around T9, T10 and G13 should then be reinstated back to its original position following completion of the works.

Retaining Structures

6.3 Based on the General Arrangement Plan, a proposed reinforced earth slope is to be constructed along sections of the site's southern and western boundaries, within the calculated RPA of G15 and G18.

6.4 Retaining walls are also proposed along sections of the site's northern and southern boundaries within the RPA of G10 and T13 and close to the RPA of T6

6.5 To ensure that these retained trees are protected from unnecessary damage through contact with machinery and excavation beyond what is required. All works within this area should be carried out under the supervision of the appointed Arboricultural Clerk of Works using the methodology set out below.

- Tree protection fencing will be installed 2m from retaining walls to allow sufficient room for the walls to be constructed.
- Where necessary and under the supervision of the appointed Arboricultural Clerk of Works tree protection fencing should be repositioned as shown on the Tree Protection Plan as a solid orange line.

- Under the supervision of the appointed Arboricultural Clerk of Works the reinforced earth slope will be created using the smallest practical size of excavator.
- No machinery, equipment or materials are to be positioned on unsurfaced ground within the RPA of retained trees.
- Any roots located / identified during these works shall be pruned as they became exposed. Roots shall be wrapped with hessian material, which is to be kept damp, until the area can be covered.
- If any large roots (>25mm diameter) are encountered during excavation which cannot be worked around, the Arboricultural Consultant will carry out an assessment and determine suitable remediation works of the affected tree.
- Upon completion of the new retaining structures protection fencing will be re-erected in the positions as shown on the Tree Protection Plan as a solid magenta line and will remain in situ until all site works are completed and in agreement with the Arboricultural Clerk of Works.

6.6 It may be necessary for retained trees close to retaining structures be subject to some pruning. Low branches could easily be damaged during the construction operation, and it advised that they be removed beforehand to avoid unnecessary damage and pruned appropriately. This would be considered as ‘access facilitation pruning’ as described within BS:5837 and is entirely appropriate.

7.0 LANDSCAPING

7.1 Soft landscaping including the installation of perimeter fencing, in accordance with the approved landscape proposals, should be installed following the completion of all construction works in the area. The removal of the tree protection fencing will be required to complete this operation.

7.2 An initial site meeting with the landscape contractor, shall be a requirement of this AMS. At the meeting the Arboricultural Clerk of Works will review proposed landscaping works within the RPA of retained trees including the position of fencing and fence posts and identify any pruning works required to retained trees.

7.3 Within the RPA of trees to be retained, fencing will be installed using hand tools only including the use of powered hand tools. The position of fencing will work with existing ground levels and will avoid trees where feasible. Fence posts will be positioned as far from retained trees as is feasible and if any unexpected large roots (>25mm diameter) are encountered during excavation the fence post will be moved to avoid unnecessary damage.

7.4 Within the root protection areas of trees to be retained, the preparation of soil for planting and turfing will be carried out by hand. Cultivation will be kept to a minimum and the use of tracked machinery during this operation is to be restricted in the RPA's of retained trees.

8.0 FOREST SCHOOL

8.1 Based on the General Arrangement Plan, a Forest School is proposed within G10 on the site's northern boundary. The Forest School layout as shown on The Tree Retention Plan (11376-T-02) is indicative but will contain paths, seats, and open areas.

8.2 An initial site meeting prior to starting works on the Forest School, shall be a requirement of this AMS. At the meeting the Site Manager and Arboricultural Clerk of Works will set out the position of paths and seats and identify areas where openings could be created. The position of these features will work with existing ground levels and will avoid trees where feasible.

8.3 Due to the density of G10 it will however be necessary for some trees to be removed to create clearings and a safe means of access. The trees to be removed will be marked up by the Arboricultural Clerk of Works during the site meeting, with the tree surgeon present. Highly visible fluorescent paint will be used to assist in identification.

8.4 To minimise any potential damage to retained trees during the construction of the Forest School, works should be carried out using the methodology set out below and be supervised by an appointed Arboricultural Clerk of Works.

- There will be no heavy machinery used for the construction of the Forest School and no access to plant machinery within G10.
- Any excavation required to provide a suitable subbase for footpath will be undertaken using hand tools only.
- Within G10 materials will be transported by wheelbarrow on running boards when working near trees.
- Any roots located / identified during these works shall be pruned back to the face of the trench as they became exposed. Roots shall be wrapped with hessian material, which is to be kept damp, until the area can be back filled.
- If any large roots (>25mm diameter) are encountered during excavation which cannot be worked around, the Arboricultural Consultant will carry out an assessment and determine suitable remediation works or pruning of the affected tree.
- Once completed it will be necessary that, a review of the relationship between retained trees and the Forest School should be undertaken by a qualified arboriculturist to assess the retained tree cover and prepare a schedule of tree works.

9.0 GENERAL TREE PROTECTION MEASURES

9.1 This section details non-specific tree protection measures which are always to be applied.

9.2 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.

9.3 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.

9.4 No materials or soils are to be stored within the Root Protection Area of the retained trees.

9.5 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.

9.6 Wide or tall loads etc. should not come into contact with retained trees. Banks man should supervise transit of vehicles where they are in proximity to retained trees.

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

10.0 TREE MANAGEMENT

10.1 Landowners responsible for trees; especially those within the public domain, have a legal ‘duty of care’ to ensure that visitors and neighbours of their land are reasonably safe and that nobody comes to harm or injury, by his or her negligence, through taking measures to (The Health and Safety at Work Act 1974).

10.2 To ensure that risks are reduced as far as is 'reasonably practicable' it will be necessary that upon completion and prior to use or occupation, a review of the relationship between retained trees and the new development should be undertaken by a qualified arboriculturist to assess the retained tree cover and prepare a schedule of tree works.

10.3 The Occupiers Liability Act (1957 and 1984) also places a ‘duty of care’ to ensure that no reasonably foreseeable harm takes place due to tree defects. That duty of care should be reasonable, proportionate, and reasonably practicable when managing the risk.

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

KEY

- Tree/Group to be Retained
- Tree/Group proposed to be removed subject to relevant permissions
- Woodland to be Retained
- Root Protection Area (Shown for retained trees only)
- T1 (A) G1 (A) — Individual / Group Number and BS Category
- T1 (A) G1 (A) — Individual / Group Number to be Removed and BS 5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

Scale 1:1000 @ A3

0 25 50m

NOTES

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

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

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

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

rev	date	description	by
-	31.07.23	First Issue	EC
A	22.08.23	Revision	EC
B	04.09.23	Revision	EC
C	27.09.23	Revision	EC

fpcr

masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture

FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

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

client
Frank Shaw Associates Limited

project
Former Deighton Centre
Deighton

drawing title
TREE RETENTION PLAN

scale	drawn/checked	date
1:1000 @ A3	EC / NC	September 2023

drawing number
11376-T-02

rev
C

CAD file: L:\11300\11376\ARB\AA\Plans\Tree Retention Plan.dwg

KEY

- Tree/Group to be Retained
- Woodland to be Retained
- Root Protection Area (Shown for retained trees only)
- T1 (A) G1 (A) — Individual / Group Number and BS Category
- 6.0m — Line of Protective Barriers (and distance from tree or structure)
- Line of Secondary Protective Barriers (see AMS for details)
- Arboricultural Supervision Zone (see AMS for details)

Scale 1:500 @ A3

0 10 20 30m

NOTES

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

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

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

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

rev	date	description	by
-	31.07.23	First Issue	EC
A	22.08.23	Revision	EC
B	04.09.23	Revision	EC
C	27.09.23	Revision	EC

masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture

FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

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

client
Frank Shaw Associates Limited

project
Former Deighton Centre
Deighton

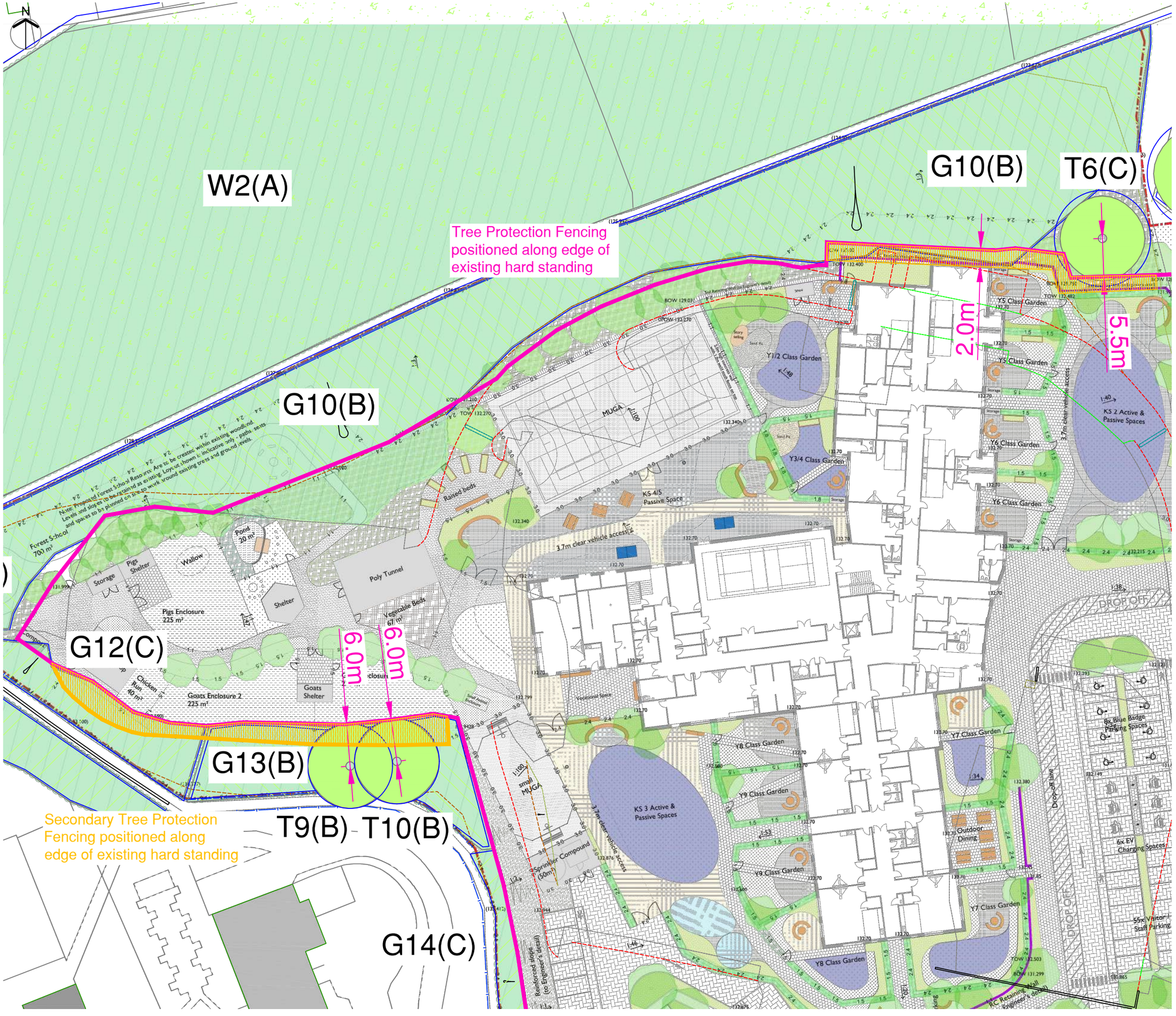
drawing title
TREE PROTECTION PLAN

scale	drawn/checked	date
1:500 @ A3	EC / NC	September 2023

drawing number
11376-T-03

rev
C

CAD file: L:\11300\11376\ARB\AA\Plans\Tree Retention Plan.dwg



KEY

- Tree/Group to be Retained
- Woodland to be Retained
- Root Protection Area (Shown for retained trees only)
- T1 (A) G1 (A) — Individual / Group Number and BS Category
- 6.0m — Line of Protective Barriers (and distance from tree or structure)
- Line of Secondary Protective Barriers (see AMS for details)
- Arboricultural Supervision Zone (see AMS for details)

Scale 1:500 @ A3

0 10 20 30m

NOTES

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

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

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

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

rev	date	description	by
-	31.07.23	First Issue	EC
A	22.08.23	Revision	EC
B	04.09.23	Revision	EC
C	27.09.23	Revision	EC

masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture

FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

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

client
Frank Shaw Associates Limited

project
Former Deighton Centre
Deighton

drawing title
TREE PROTECTION PLAN

scale	drawn/checked	date
1:500 @ A3	EC / NC	September 2023

drawing number
11376-T-04

rev
C

CAD file: L:\11300\11376\ARB\AA\Plans\Tree Retention Plan.dwg

Appendix A - Tree Schedule

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

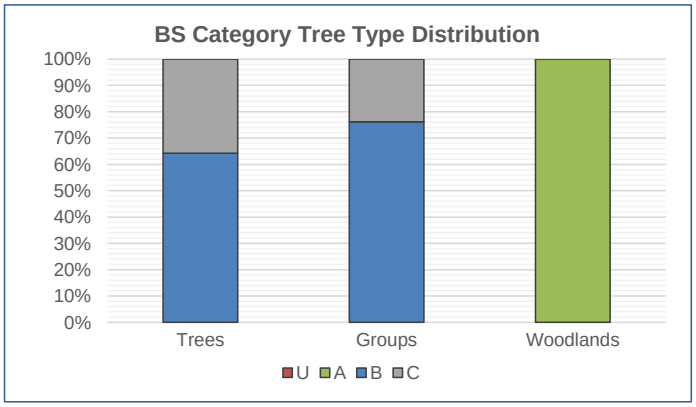
Structural Condition	Physiological Condition	Root Protection Area (RPA)
Good - No significant structural defects	**Good -** No significant health problems	• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described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

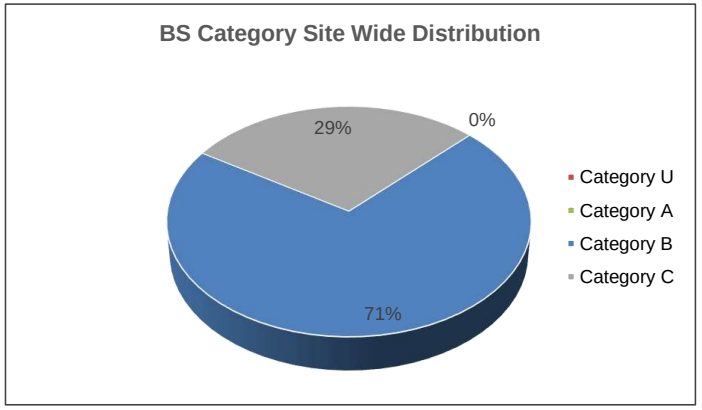
Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U		0		0
Category A		0	W1, W2	2
Category B	T2, T3, T4, T5, T9, T10, T12, T13, T14	9	G1, G2, G3, G4, G5, G7, G8, G9, G10, G11, G13, G15, G16, G17, G18, G21	16
Category C	T1, T6, T7, T8, T11	5	G6, G12, G14, G19, G20	5
	Total	14	**Total**	23

BS Category Tree Type Distribution displays the proportion of trees assessed in each type to enable a better understanding of the category distribution.

BS Category Site Wide Distribution shows the proportion of trees assessed in each category across the whole site which allows an interpretation of the site's overall quality.





Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
INDIVIDUAL TREES										
T1	English Oak Quercus robur	7	180 120	3	SM	F	Situated on site frontage likely self seeded multi stemmed from base dense ivy cover obscures stems	21	2.6	C (i)
T2	Italian Alder Alnus cordata	15	390	5	EM	G	Situated within G1 larger proportions than surrounding tree cover	69	4.7	B (i)
T3	Scots Pine Pinus sylvestris	7	410	4	EM	F	Situated within tree group larger proportions than surrounding tree cover twin stemmed from 2m	76	4.9	B (i)
T4	Goat Willow Salix caprea	7	6x 300	6	M	F	Situated within G8 larger proportions than surrounding tree cover multi stemmed from base crossing and rubbing branches	244	8.8	B (i)
T5	Sessile Oak Quercus petraea	10	7x 250	7	M	F	Situated within G9 larger proportions than surrounding tree cover multi stemmed from 1.5m low crown form	198	7.9	B (i)
T6	Norway Maple Acer platanoides	10	570	6	M	F	Open grown specimen main stem has previously failed at 5m with tearout wound and cavity dead branches noted within crown	147	6.8	C (i)
T7	Sessile Oak Quercus petraea	11	380	N - 1 S - 6 E - 4 W - 4	EM	F	Situated within site on edge of footpath suppressed crown form small diameter dead branches noted	65	4.6	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T8	Sessile Oak Quercus petraea	11	325	N - 1 S - 5 E - 4 W - 4	EM	F	Situated within site on edge of footpath suppressed crown form small diameter bark wounds noted on main stem	48	3.9	C (i)
T9	Sessile Oak Quercus petraea	15	500	6	M	F	Situated within tree group between two fence lines past pruning to raise crown small diameter dead branches noted	113	6.0	B (i)
T10	Sessile Oak Quercus petraea	15	500	6	M	F	Situated within tree group between two fence lines past pruning to raise crown small diameter dead branches noted stem in contact with fence with inclusion	113	6.0	B (i)
T11	Rowan Sorbus aucuparia	8	350	5	M	F	Planted specimen close to car park dense undergrowth restricts access to base uneven crown dead branches noted	55	4.2	C (i)
T12	Norway Maple Acer platanoides	10	300	5	EM	F	Planted specimen close to car park low crown form	41	3.6	B (i)
T13	English Oak Quercus robur	10	est 400	5	EM	F	Separate from group dense undergrowth restricts access to base low crown form	72	4.8	B (i)
T14	Weeping Willow Salix x sepulcralis 'Chrycosoma'	15	est 500	5	M	F	Situated beyond boundary fence unable to access crown in contact with building	113	6.0	B (i)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Blackthorn Prunus spinosa Field Maple Acer campestre Silver Birch Betula pendula Wild Cherry Prunus avium Hazel Corylus avellana Holly Ilex aquifolium Whitebeam Sorbus aria Scots Pine Pinus sylvestris	10	upto 250 200	4	EM	F	Buffer planting along embankment predominantly cherry moderate screening value sections of undergrowth debris piled within group	46	3.8	B (ii)
G2	Italian Alder Alnus cordata	17	upto 400	5	EM	F	Situated within G1 group of alder closely spaced etoliated forms mutual canopy small diameter dead branches noted in lower crowns	72	4.8	B (ii)
G3	Hazel Corylus avellana	7	upto 15x 120	4	M	F	Group of three Hazel coppice along Eastern edge of group no obvious recent management	98	5.6	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G4	Blackthorn Prunus spinosa Field Maple Acer campestre Goat Willow Salix caprea Silver Birch Betula pendula Wild Cherry Prunus avium Hazel Corylus avellana Holly Ilex aquifolium	8	upto 300	3	SM	F	Tree group along embankment predominantly cherry young self seeded cherry throughout group failed trees noted moderate landscape value	41	3.6	B (ii)
G5	Italian Alder Alnus cordata	17	upto 420	5	EM	F	Situated within on embankment group of alder closely spaced etoliated forms mutual canopy small diameter dead branches noted in lower crowns	80	5.0	B (ii)
G6	Blackthorn Prunus spinosa Field Maple Acer campestre	7	upto 200	3	EM	F	Situated on embankment predominantly blackthorn thicket limited arboricultural value	18	2.4	C (ii)
G7	Blackthorn Prunus spinosa English Oak Quercus robur Hazel Corylus avellana	5	upto 10x 100	3	EM	F	Situated on embankment Hazel coppice with blackthorn thicket and self seeded trees moderate arboricultural value	45	3.8	B (ii)

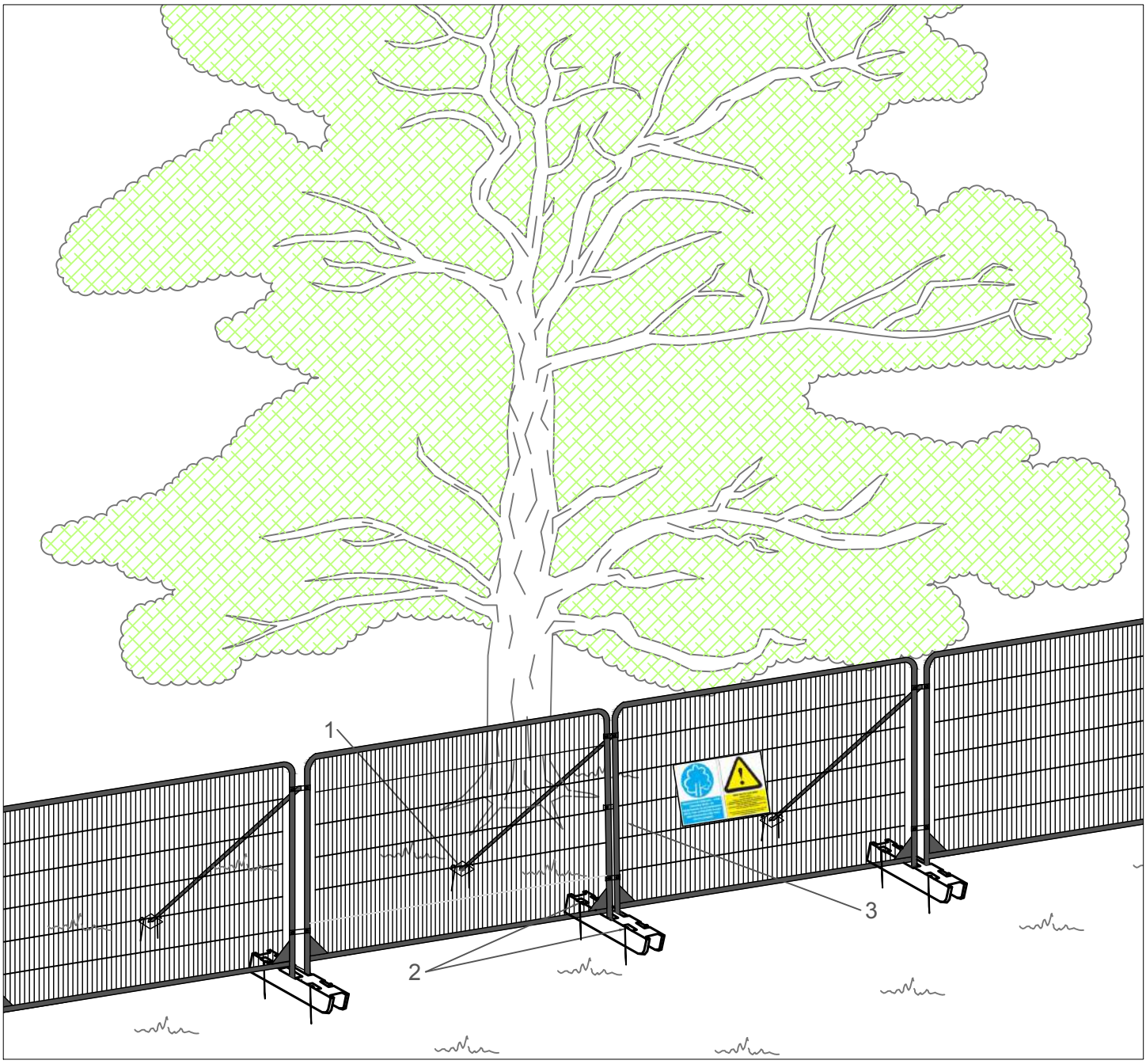
Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G8	Ash Fraxinus excelsior Elder Sambucus nigra Goat Willow Salix caprea Hawthorn Crataegus monogyna Silver Birch Betula pendula Sycamore Acer pseudoplatanus Alder Alnus glutinosa Holly Ilex aquifolium Rowan Sorbus aucuparia	16	upto 400	5	EM	F	Planted group along embankment good spacing between trees undergrowth within group shrub layer developing occasional dead and failed tree noted	72	4.8	B (ii)
G9	Ash Fraxinus excelsior English Oak Quercus robur Hawthorn Crataegus monogyna Silver Birch Betula pendula Sycamore Acer pseudoplatanus Holly Ilex aquifolium Italian Alder Alnus cordata Rowan Sorbus aucuparia	12	upto 300	4	EM	F	Planted group along embankment predominantly sycamore dense undergrowth in sections moderate screening value	41	3.6	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G10	Ash Fraxinus excelsior Blackthorn Prunus spinosa Elder Sambucus nigra English Oak Quercus robur Field Maple Acer campestre Goat Willow Salix caprea Hawthorn Crataegus monogyna Horse Chestnut Aesculus hippocastanum Silver Birch Betula pendula Sycamore Acer pseudoplatanus Wild Cherry Prunus avium Hazel Corylus avellana Rowan Sorbus aucuparia guelder rose	13	upto 350	4	EM	F	Planted group along site boundary Old hawthorn hedge line within group young self seeded trees have established throughout	55	4.2	B (ii)
G11	Beech Fagus sylvatica English Oak Quercus robur Silver Birch Betula pendula Alder Alnus glutinosa	17	upto 400	5	EM	G	Situated beyond site boundary within adjoining school unable to access etoliated forms dead branches noted	72	4.8	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G12	Goat Willow Salix caprea Sessile Oak Quercus petraea Dogwood Cornus sanguinea	7	upto 270 220	4	EM	F	Group of dogwood with self seeded oak and goat willow limited arboricultural value	55	4.2	C (ii)
G13	Field Maple Acer campestre Goat Willow Salix caprea Horse Chestnut Aesculus hippocastanum Alder Alnus glutinosa Hazel Corylus avellana	14	upto 300	4	EM	F	Planted group along edge of car park low crown to near ground level moderate screening value	41	3.6	B (ii)
G14	Elder Sambucus nigra Norway Maple Acer platanoides Sessile Oak Quercus petraea	10	upto 250	3	SM	F	Small group of trees situated between fence lines stems growing through fence past pruning to raise crowns dead branches noted	28	3.0	C (ii)
G15	Norway Maple Acer platanoides	12	upto 480	5	M	F	Group of three trees next to car park mutual canopy past pruning to raise crown central tree has a bark wound on stem likely from planting stake not being removed	104	5.8	B (ii)
G16	Ash Fraxinus excelsior Norway Maple Acer platanoides Sycamore Acer pseudoplatanus Tree cotoneaster	14	upto 300	4	EM	F	Group of trees situated between two fence lines past pruning to raise crown moderate screening value	41	3.6	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G17	Norway Maple Acer platanoides Sycamore Acer pseudoplatanus	17	upto 400	5	EM	F	Planted group along embankment ivy cover obscures stems moderate screening value	72	4.8	B (ii)
G18	Norway Maple Acer platanoides	13	upto 470	5	EM	F	Group of three trees close spacing mutual canopy low crown forms	100	5.6	B (ii)
G19	Norway Maple Acer platanoides Dogwood Cornus sanguinea	3	upto 80	1	SM	F	Planted group along small retaining wall limited arboricultural value	3	1.0	C (ii)
G20	Whitebeam Sorbus aria Paper Birch Betula papyrifera	3	upto 150	1.5	SM	P	Three trees planted along edge of car park vandalism and bark wounds noted limited arboricultural value	10	1.8	C (ii)
G21	Sycamore Acer pseudoplatanus Rowan Sorbus aucuparia Leyland Cypress Cupressocyparis leylandii	15	upto 500	6	EM	F	Planted group along site boundary predominantly sycamore small section of conifer crowns previously maintained along edge of car park	113	6.0	B (ii)

Wood No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
WOODLANDS										
W1	Elder Sambucus nigra English Oak Quercus robur Hawthorn Crataegus monogyna Silver Birch Betula pendula	12	upto 420	4	EM	G	Predominantly oak woodland situated beyond application boundary low crown forms young oak have self seeded along woodland edge	80	5.0	A (ii)
W2	Hawthorn Crataegus monogyna Norway Maple Acer platanoides Silver Birch Betula pendula Sycamore Acer pseudoplatanus Holly Ilex aquifolium Sessile Oak Quercus petraea Sweet Chestnut Castanea sativa Common Larch Larix decidua Corsican Pine Pinus nigra ssp. Laricio	17	upto 500	5	EM	G	Predominantly sycamore woodland situated beyond application boundary etoliated forms occasional coniferous species footpath along woodland edge	113	6.0	A (ii)



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

fpcr

masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture

FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

t: 01509 672772
f: 01509 674565
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

NOTES

drawing title

APPENDIX B
PROTECTIVE FENCING SPECIFICATIONS

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

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