# St Mary's Primary School Batley – BS 5837:2012 Arboricultural Report, Impact Assessment and Method Statement

## AHR Building Consultancy Ltd

January 2024

# Ecus Ltd

**Report to:** **AHR Building Consultancy Ltd**

**Report Title:** **St Mary's Primary School Batley – BS 5837:2012 Arboricultural Report, Impact Assessment and Method Statement**

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**Originated By:**

**Dave Farmer FdSc MArborA**
**Senior Arboricultural Consultant** Date: January 2024

**Reviewed By:**

**Drew Leeper Dip Arb L3**
**TechArborA**
**Arboricultural Consultant** Date: January 2024

**Approved By:**

**Drew Leeper Dip Arb L3**
**TechArborA**
**Arboricultural Consultant** Date: January 2024

*Prepared by:*
Brook Holt, 3 Blackburn Road, Sheffield, S61 2DW
01142 669 292

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| 0.1 | Dave Farmer | Draft | 23/01/2024 |
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| | | | |

# Contents

# Executive Summary

On behalf of AHR Building Consultancy Ltd (the Client), Ecus Limited (Ecus) has carried out a tree survey to BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations* in December 2023 at St Mary's Primary School, Upton Street, Batley, WF17 8PH. This survey has formed the basis for an assessment of the impacts that development proposals may have on the existing tree cover, and recommends methodologies that will need to be adopted to protect retained trees during development.

The survey recorded all significant trees within the site and those which may be affected by any development proposed within the site boundary, recording a number of parameters including species, crown spread and Root Protection Area (RPA).

The RPA of any given tree is calculated in accordance with BS 5837:2012 and is generally a circular plot centred on its stem. This area around each tree should not be disturbed by excavation, compaction, contamination or other related demolition and construction activities. Minor encroachment into the RPA may be possible if specific methodologies are put in place that reduce the likelihood of the tree being negatively impacted.

The survey recorded 5 individual trees, 3 tree groups and 2 hedgerows.

The site is located within the Cross Bank Batley Conservation Area. The approval of the Local Planning Authority should be sought before any works are carried out to protected trees. No trees within the site boundary are protected by a Tree Preservation Order (TPO).

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

The Client proposes the demolition of existing structures and the construction of a residential development, consisting of 10 dwellings with vehicle access, landscaping and facilities. This will require the removal of 3 individual trees and 3 tree groups, and may also have an impact on the roots, stems and canopies of retained trees unless suitable protection measures are put in place.

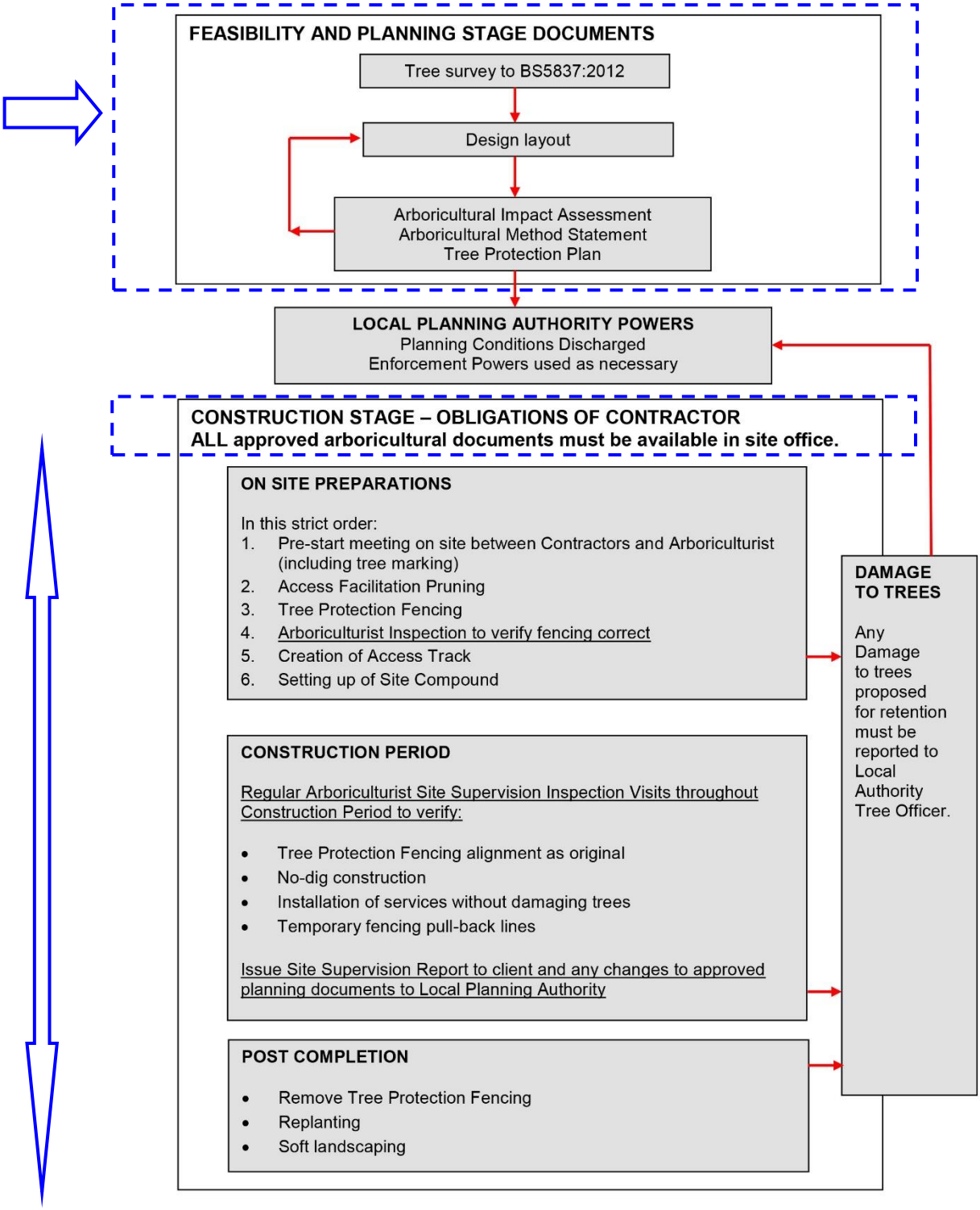
This report details the potential arboricultural impacts of development at the site and offers a range of protection measures and construction methodologies which should be adopted. These measures aim to prevent accidental damage and other adverse effects on the health of retained trees.

The report also makes recommendations for any measures to mitigate or compensate for the loss of trees within the site and the likely impact on the site and the wider local landscape.

# 1. Introduction

## 1.1 Context of this Report in the Planning System

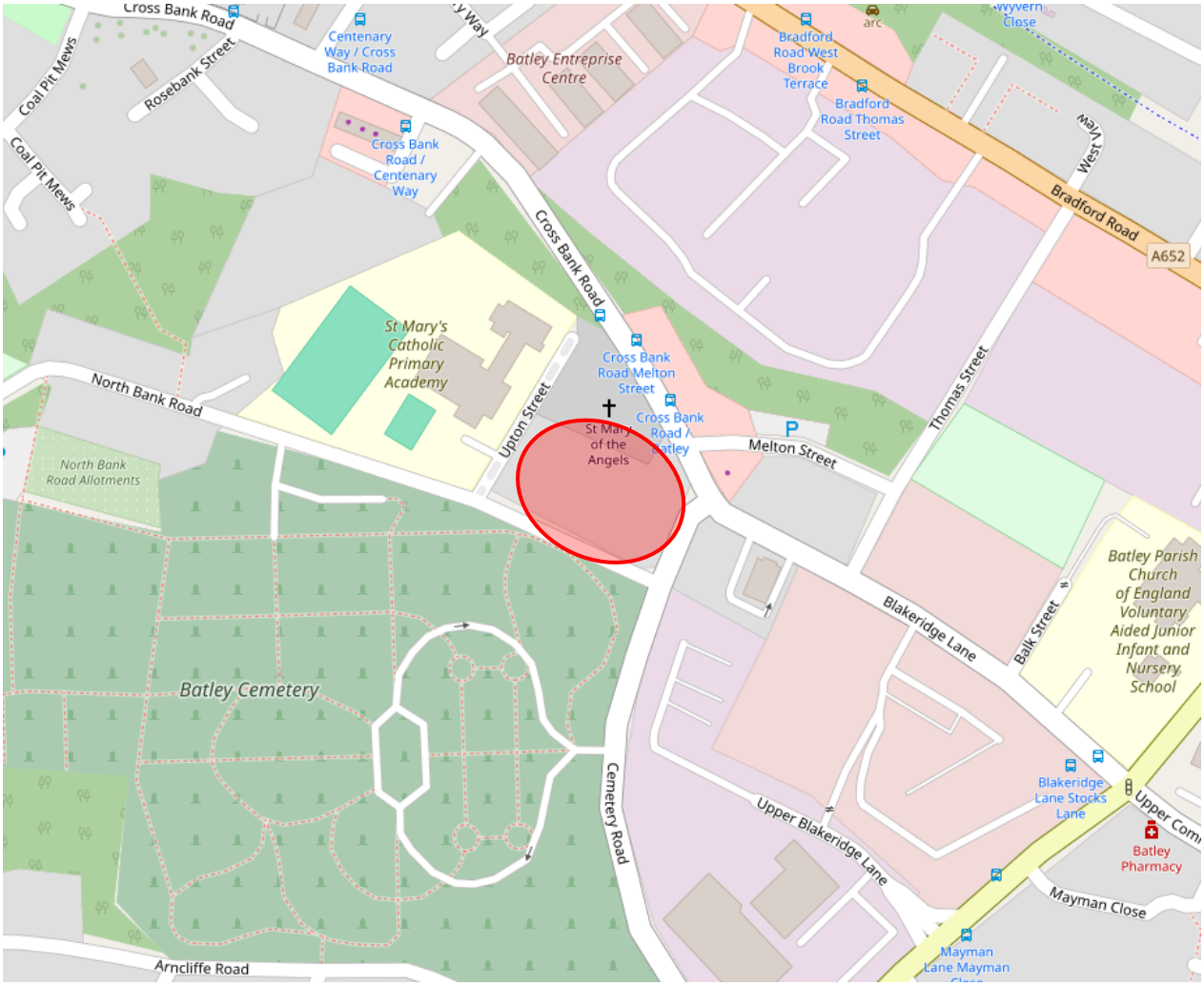
**Figure 1: The Design and Construction Process and Tree Care**



## 1.2 Location

1.2.1 Ecus Limited has been commissioned by the Client to undertake a tree survey of the site at St Mary's Primary School, Upton Street, Batley, WF17 8PH, Ordnance Survey UK Grid Reference SE237245, and prepare the findings in a report. The site location is shown in Figure 2.

**Figure 2: Location Map**

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## 1.3 Tree Designations

1.3.1 The information available on the Kirklees Council website (www.kirklees.gov.uk/beta/trees-listing-and-conservation) has confirmed that the site is located within the Cross Bank Batley Conservation area. No trees included in the survey are protected by a TPO.

1.3.2 The permission of the local planning authority must be sought before any works are carried out to protected trees. Potentially unlimited fines can be imposed for illegally carrying out any works to protected trees.

1.3.3 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 site.

## 1.4 Protected Species

***Bats***

1.4.1 Mature trees can often contain cavities or hollows which provide potential roosting locations for bats. Bats and the places they use for shelter or protection (i.e. roosts) are protected under *The Conservation of Habitats and Species Regulations* 2017 (Habitats Regulations 2017). They also receive legal protection under the *Wildlife and Countryside Act* (WCA) 1981. Consequently, causing damage to a bat roost constitutes an offence.

1.4.2 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***

1.4.3 Trees and hedgerows can provide habitat for nesting birds which are protected under the *Wildlife and Countryside Act* (WCA) 1981. Some species are further protected by special penalties. This legislation makes it an offence to intentionally or recklessly damage or destroy an active bird nest or part thereof.

1.4.4 As the trees at the site provide potential habitat for nesting birds all tree work should ideally be completed outside the peak nesting bird season (Generally March to August inclusive).

1.4.5 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 active nests are identified then the vegetation, and a defined buffer zone, will need to remain in place until the young have fully fledged.

# 2. Tree Survey Methodology

## 2.1 Site survey

2.1.1 Ecus have undertaken the tree survey in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*, to provide detailed and independent arboricultural advice in the context of potential development. The survey was a ground based visual inspection carried out by a suitably qualified arboriculturist. No trees were tagged as part of the survey.

2.1.2 The tree inspection was carried out in December 2023 by Dave Farmer FdSc MArborA, Senior Arboricultural Consultant, when the deciduous trees were generally not in leaf.

2.1.3 The weather on the day of the survey was clear and bright. This allowed for a thorough inspection of all trees included in the survey.

2.1.4 The survey recorded all trees with a stem diameter of 75 mm or more at a height of 1.5 m above ground level within the site boundary. Any significant trees outside the boundary which could be significantly affected by the future development of the site were also recorded.

2.1.2 The following characteristics were recorded:

- Species
- Stem diameter at 1.5 m above ground level (mm)
- Estimated height (m)
- Approximate crown spread (m) in North, East, South and West directions
- Estimate of the number of years that the tree is likely to remain suitable for retention
- Age class
- Condition category in accordance with BS 5837:2012. The categories are defined as:
    - Category U = Those 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
- Value subcategories where appropriate in accordance with BS 5837:2012. These are defined as:
    - 1 = Mainly arboricultural qualities
    - 2 = Mainly landscape qualities
    - 3 = Mainly cultural values, including conservation
- General notes about physiological and structural condition and any management recommendations

2.1.5 All survey data has been 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 and hedgerows 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.

2.1.6 Some measurements for trees with limited accessibility may have been estimated. This is highlighted with a hash (#) symbol in the Tree Survey Schedule at Appendix 1.

2.1.7 Where trees formed a contiguous canopy they may have been grouped, in line with the guidance of BS 5837:2012. If densely wooded areas are not expected to be directly affected by development proposals only the significant trees at the woodland perimeter will have been surveyed.

2.1.8 Trees are living organisms that change over time. A re-survey of all trees should be carried out if there have been any significant storm events or more than 12 months have passed since the survey was carried out.

## 2.2 Calculation of Root Protection Area (RPA)

2.2.1 The Root Protection Area (RPA) is calculated according to the formulae set out in BS 5837:2012. This is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure should be treated as a priority.

2.2.2 Due to the specific topography of the site and the presence of surrounding structures the RPA is likely to be a simplified representation of the actual morphology and disposition of tree roots. Any deviation in the shape of the RPA from the calculated circular shape will largely be based on conjecture and so should generally be avoided. However, where significant site features are present that could clearly influence the disposition of tree root growth (e.g. water courses, building foundations and retaining walls), the RPA may be amended to take these features into account.

# 3. Tree Survey Results

## 3.1 General Site Description

3.1.1 The site was a derelict former school building surrounded by overgrown areas of open ground and hard surfacing, located in the town of Batley, approximately 0.5 km to the west of Batley town centre.

3.1.2 The trees at the site were located close to the boundaries, generally in ground that is likely to have been the garden areas of the now derelict school.

## 3.2 Results of Tree Survey

3.2.1 The Tree Survey Schedule at Appendix 1 details the results of the tree survey and includes any management recommendations. The schedule should be read in conjunction with the tree plans at Appendix 3 which show the location of each tree and group surveyed and the extent of their canopies and RPA.

3.2.2 5 individual trees, 3 tree groups and 2 hedgerows have been recorded during the survey. A summary of the tree survey findings is shown in Table 1.

**Table 1: Summary of Tree Survey Findings**

| Category A | Category B | Category C | Category U |
|---|---|---|---|
| Trees: 0<br>Groups: 0<br>Hedgerows: 0 | Trees: 2<br>Groups: 1<br>Hedgerows: 0 | Trees: 3<br>Groups: 2<br>Hedgerows: 2 | Trees: 0<br>Groups: 0<br>Hedgerows: 0 |

3.2.3 The most significant trees were located to the west of the site and include G008 and T009. These moderate value poplar, sycamore and laburnum trees appeared to have good future prospects and were located in a prominent roadside position.

3.2.4 The moderate value sycamore, T006, provided some moderate short term value, however its prospects were significantly limited due to its poor rooting area, against a stone wall and close to a concrete foundation.

3.2.5 The remaining trees and hedgerows were of particularly low individual value and retention category C. They should not pose a significant constraint to the development potential of the site.

# 4. Arboricultural Impact Assessment (AIA)

## 4.1 Introduction

4.1.1 A BS 5837:2012 Arboricultural Impact Assessment (AIA) has been carried out for all trees included in the survey. The AIA methodology evaluates the potential direct and indirect impacts the proposed development could have on the trees at the site. Where necessary mitigation measures are recommended.

4.1.2 BS 5837:2012 paragraph 5.4.2 states:

> *"The assessment should take account of the effects of any tree loss required to implement the design, and any potentially damaging activities proposed in the vicinity of retained trees. Such activities might include the removal of existing structures and hard surfacing, the installation of new hard surfacing, the installation of services, and the location and dimensions of all proposed excavations or changes in ground level, including any that might arise from the implementation of the recommended mitigation measures. In addition to the impact of the permanent works, account should be taken of the buildability of the scheme in terms of access, adequate working space and provision for the storage of materials, including topsoil."*

## 4.2 Development Proposals

4.2.1 The client proposes the demolition of existing structures and the construction of a residential development, consisting of 10 dwellings with vehicle access, landscaping and facilities.

4.2.2 This AIA is based on the development layout provided by the Client.

## 4.3 Tree Retention and Removal

4.3.1 The development proposals indicate that 3 individual trees and 3 tree groups (G003, T004, T005, T006, G007 and G008) within the site boundary will need to be removed to facilitate the new development, as they are situated in the footprint of new structures or their retention and protection throughout the development is not suitable.

4.3.2 The trees that need to be removed are detailed in the Tree Survey Schedule at Appendix 1 and located on the Tree Impacts Plan at Appendix 3. A summary of the required tree removals is shown in Table 2.

**Table 2: Summary of Required Tree Removals**

| Trees to be Removed | | | Trees to be Retained | | |
|---|---|---|---|---|---|
| **Category A** | **Category B** | **Category C** | **Category A** | **Category B** | **Category C** |
| Trees: 0 | Trees: 1 | Trees: 2 | Trees: 0 | Trees: 1 | Trees: 1 |
| Groups: 0 | Groups: 1 | Groups: 2 | Groups: 0 | Groups: 0 | Groups: 0 |
| Hedgerows: 0 | Hedgerows: 0 | Hedgerows: 0 | Hedgerows: 0 | Hedgerows: 0 | Hedgerows: 2 |
| **Total: 0** | **Total: 2** | **Total: 4** | **Total: 0** | **Total: 1** | **Total: 3** |

4.3.3 The loss of a high proportion of tree cover across the site will undoubtedly result in a significant loss of amenity value. However, the trees to be removed are generally of low individual value, many with significant defects that are likely to limit their longer term prospects.

4.3.4 The development proposals have allowed space for the planting of replacement trees throughout the site once construction is complete. The planting of diverse tree species that are in keeping with the surrounding landscape character and tolerant of climate change can mitigate for the required removals and, in the longer term, increase the amenity value and ecosystem service benefits that the site's trees provide.

## 4.4 Tree Pruning

4.4.1 The pruning of trees should only be undertaken where essential, to prevent open wounds that can lead to bacterial or fungal infection. Pruning works should generally be undertaken during the winter months when the tree is dormant or during the summer months when the tree is fully active.

4.4.2 Any pruning works that are required to facilitate the development are detailed in the Tree Survey Schedule at Appendix 1.

4.4.3 Tree pruning should be carried out by a suitably qualified and insured arboricultural contractor and in accordance with the recommendations of BS 3998:2010 *Tree work – Recommendations.*

## 4.5 Impacts from Demolition/Construction Operations

4.5.1 Where proposed operations encroach beneath the canopy or into the RPA of retained trees there is the potential for damage to occur.

4.5.2 Groundworks are proposed at the edge of the RPA of the retained tree T009 as detailed on the Tree Impacts Plan at Appendix 3.

4.5.3 In this instance the encroachment is particularly minor and the tree is unlikely to be significantly affected by the works due to the presence of trees within the group G008, which will have reduced the potential for root growth from T009 in the direction of the works.

4.5.4 Any works within the RPA or beneath the canopy of retained trees have been detailed as part of the Arboricultural Method Statement at Appendix 3, to ensure that these works are carried out in a manner that eliminates the likelihood of any damage occurring.

## 4.6 Shading

4.6.1 The shade from trees can be considered both a constraint and an opportunity. Some shade from trees can be beneficial. In particular, deciduous trees provide shade in summer but allow access to sunlight in winter. However, the design proposals should avoid excessive shading, and give adequate provision for future tree growth. The development should be fully considered to ensure a harmonious and sustainable relationship can be achieved.

4.6.2 When considering the position and orientation of new residential buildings in relation to existing trees, primary living areas should receive the largest proportion of natural sunlight. BRE guidelines recommend "at least half of the garden or open space should receive at least two hours sunlight on March 21 (Spring Equinox)".

## 4.7 Mitigation and Protection

4.7.1 The retained trees will need protecting from development operations to ensure that they are not negatively impacted during the development. This has been detailed as part of the Arboricultural Method Statement (AMS) at Appendix 3.

4.7.2 Where existing hard surfaces are present within the RPA of retained trees they should be kept in place where possible, even if they are not part of the design proposals. These hard surfaces will provide ground protection for any roots present beneath the hard surface during development works.

4.7.3 Any works that are proposed beneath the canopy or within the RPA of retained trees must be carried out as specified in the AMS. It is likely that these works will need to be supervised by the project arboriculturist so that any tree related issues that occur can be suitably dealt with.

4.7.4 To compensate for potential root damage and stress caused by construction activities, retained trees onsite should be mulched. The materials that may be used include wood chip, pulverized bark, or leaf mould. The mulched area should extend throughout the open ground within the RPA. The depth of an organic mulch should not be so much as to inhibit aeration of the root system or to cause overheating (Approximately 50 mm to 100 mm).

4.7.5 Where the removal of trees is required to facilitate the development, the planting of suitable replacement trees will be required as part of a wider landscaping scheme. It is recommended that tree planting follows a 5 – 10 – 20 - 30 formula (i.e. No more than 5% of any one cultivar, no more than 10% of any one species, no more than 20% of any one genus, and no more than 30% of any one family.) This gives any new tree population maximum resilience against pests and diseases.

4.7.6 Tree planting and establishment should be carried out in accordance with BS 8545:2014 *Trees: from nursery to independence in the landscape – Recommendations*.

# 5. References

BS 3998:2010 *Tree work – Recommendations*. ISBN 978 0 580 53777 6

BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. ISBN 978 0 580 69917 7

BS 8545:2014 *Trees: from nursery to independence in the landscape – Recommendations.* ISBN 978 0 580 713170

Littlefair P. (2011). *Site layout planning for daylight and sunlight: a guide to good practice (BR 209).* ISBN 978 1 84806 178 1.

Volume 4 National Joint Utilities Group (NJUG) *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees*, Volume 4: Issue 2: 16/11/2007, www.njug.org.uk

# Appendix 1: Tree Survey Schedule

## Table 3: Tree Survey Schedule

| Key: | Symbols Used | Age Class | SLE | Comments | Management | Category |
|---|---|---|---|---|---|---|
| | < = less than<br>~ = approximately<br>> = greater than<br># = estimated | Young, Semi mature, Early mature, Mature or Over mature | Estimate of Safe Life Expectancy (<10 Years, 10+ Years, 20+ Years or 40+ Years) | AGL - Above Ground Level<br>MS - Multi-Stemmed<br>TD - Trunk Division (height in m)<br>DED - Dutch Elm Disease<br>ADB - Ash Die Back<br>AHC (1, 2, 3 or 4) - Ash Health Class | *Tree works that are recommended regardless of future development are in Italics*<br><br>**Tree works that are required to facilitate the proposed development are in Bold** | **BS 5837:2012 Retention Categories:**<br>U - Unsuitable for retention<br>A - High<br>B - Moderate<br>C - Low<br><br>**Sub-categories:**<br>1 - Mainly arboricultural qualities<br>2 - Mainly landscape qualities<br>3 - mainly cultural value |

| Tree No. | Species | Height (m) | No. of Stems | Stem Dia. @ 1.5m (mm) | Crown Spreads (m) | | | | Height of Crown Clearance (m) | Age Class | SLE | Overall Condition | Comments | Management | Category | RPA Radius (m) | RPA Area ($m^2$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | N | E | S | W | | | | | | | | | |
| H001 | Whitebeam *(Sorbus aria)*<br>Privet *(Ligustrum vulgare)*<br>Buddleia *(Buddleia sp.)* | 5 | >10 | 50 avg | See Plan | | | | 0 | Semi Mature | 20+ Years | Fair | Overgrown boundary hedgerow, western end inaccessible due to security fencing & dense undergrowth, predominantly privet with several buddleia & 2 taller whitebeams towards centre, several sections full of ivy | | C2 | - | - |
| H002 | Ivy *(Hedera sp.)* | 4 | >10 | 50 avg | See Plan | | | | 0.5 | Early Mature | 10+ Years | Fair | Well established hedgerow growing on top of low stone wall & through chain link boundary fence | | C2 | - | - |
| G003 | Willow *(Salix caprea)*<br>Cotoneaster *(Cotoneaster sp.)*<br>Birch *(Betula pendula)*<br>Buddleia *(Buddleia sp.)* | 11 | >10 | 150 avg | See Plan | | | | 0.5 | Semi Mature | 20+ Years | Fair | Largely inaccessible young to semi mature group of predominantly willow with occasional birch & understory of buddleia & cotoneaster, many sites covered in dense ivy, occasional dead & fallen stem throughout | **Removal required to facilitate construction of dwellings, vehicle parking and access** | C2 | - | - |
| T004 # | Willow *(Salix caprea)* | 8 | >10 | 120 avg | 3 | 3.5 | 3 | 3 | 0.5 | Semi Mature | 10+ Years | Good | Dense ivy at base but potentially growing through surrounding tarmac, multi-stemmed at base, no obvious defects | **Removal required to facilitate construction of dwellings** | C2 | 6.4 | 129 |

| Tree No. | Species | Height (m) | No. of Stems | Stem Dia. @ 1.5m (mm) | Crown Spreads (m) | | | | Height of Crown Clearance (m) | Age Class | SLE | Overall Condition | Comments | Management | Cate-gory | RPA Radius (m) | RPA Area ($m^2$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | N | E | S | W | | | | | | | | | |
| T005 # | Cherry *(Prunus avium)* | 10 | 1 | 200 | 3 | 3 | 2 | 2.5 | 2 | Semi Mature | 10+ Years | Fair | Growing on corner between stone wall & concrete foundations, various historical wounds low on stem, stem has 90 degree kink at approx 1.7m then curves back to near vertical, western branches touching building | **Removal required to facilitate construction of dwellings** | C1 | 2.4 | 18 |
| T006 # | Sycamore *(Acer pseudoplatanus)* | 10 | 2 | 190, 210 | 3.5 | 3.5 | 2.5 | 3 | 1.5 | Semi Mature | 20+ Years | Fair | Growing against stone wall, exposed roots at base, twin stemmed at base, epicormic growth low on stems, western branches touching building | **Removal required to facilitate construction of dwellings** | B1 | 3.4 | 36 |
| G007 | Cherry *(Prunus avium)* Cherry Laurel *(Prunus laurocerasus)* | 8 | >10 | 100 avg | See Plan | | | | 0.5 | Semi Mature | 20+ Years | Fair | Linear group growing close to concrete foundations, surrounded by various woody shrubs, generally multi-stemmed at base, evidence of extensive historical pruning potentially managing the group as a hedgerow | **Removal required to facilitate construction of dwellings, vehicle parking and access** | C2 | - | - |
| G008 | Poplar *(Populus x canescens)* Sycamore *(Acer pseudoplatanus)* Laburnum *(Laburnum anagyroides)* | 14 | >10 | 180 avg | See Plan | | | | 1.5 | Semi Mature | 40+ Years | Fair | Linear group growing between top of 0.5m high retaining wall & southern boundary wall, dense ivy on all stems & into several crowns, minor deadwood throughout | **Removal required to facilitate construction of dwellings, vehicle parking and access** | B1,2 | - | - |
| T009 # | Sycamore *(Acer pseudoplatanus)* | 13 | 1 | 310 | 4 | 3 | 4 | 3.5 | 2 | Semi Mature | 40+ Years | Fair | Growing between top of 0.5m high retaining wall & southern boundary wall, many old pruning wounds low on stems, several branch stubs to south & west where branches overhanging the wall have been removed, minor deadwood throughout | | B1 | 3.7 | 43 |
| T010 # | Cherry Laurel *(Prunus laurocerasus)* | 7.5 | >10 | 60 avg | 2.5 | 2 | 1.5 | 1 | 1.5 | Semi Mature | 40+ Years | Good | Growing close to western boundary wall, multi-stemmed at base, dense ivy low on stems | | C1 | 3.2 | 32 |

# Appendix 2: Site Photographs

**Plate 1:** H002 from the west

**Plate 2:** G003 and T004 from the north east

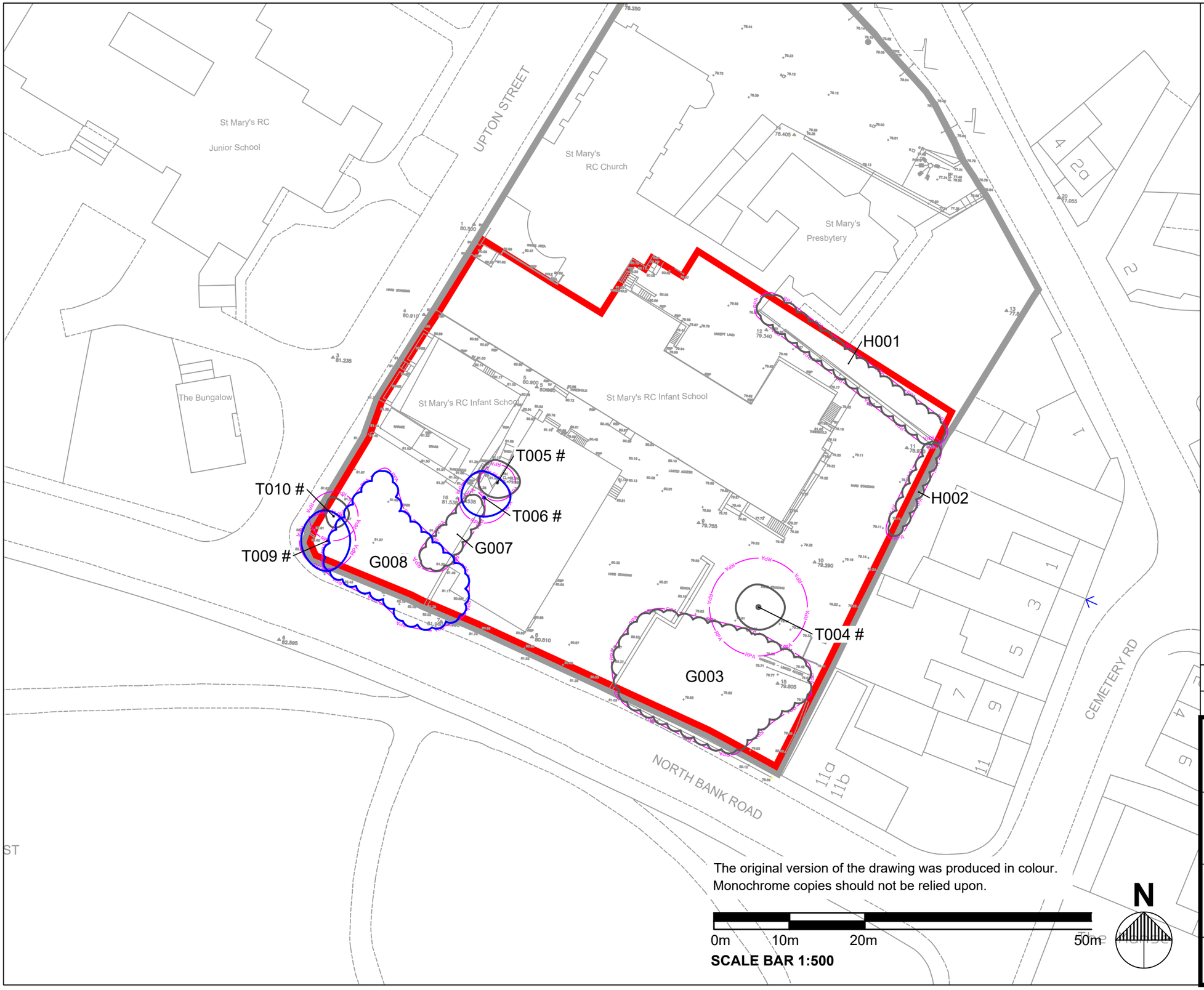
**Plate 3:** G003 from the west

**Plate 4:** T005, T006 and G007 from the east

**Plate 5:** G008 and T009 from the south

**Plate 6:** T009 and T010 from the west

# Appendix 3: Figures




The original version of the drawing was produced in colour.
Monochrome copies should not be relied upon.

0m 10m 20m 50m

**SCALE BAR 1:500**

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## GENERAL NOTES

- Drawing for Planning purposes only
- Refer to arboricultural report produced by Ecus Ltd titled 'St Mary's Primary School Batley – BS 5837:2012 Arboricultural Report, Impact Assessment and Method Statement'.
- Based on topographic survey provided by the client.
- Check all dimensions on site.
- Do not scale from this drawing.
- Report any discrepancies and omissions to Ecus Ltd.
- This drawing is Copyright.

3RD-PARTY INFORMATION

NB This drawing includes information provided by independent surveyors and / or consultants, to whom all queries shall be made. Ecus Ltd can accept no liability for its context or accuracy.

## KEY

○ Stem Location

# Location Estimated

Tree Categories (BS 5837:2012)

Category A Trees

Category B Trees

Category C Trees

Category U Trees

RPA Root Protection Area (RPA)

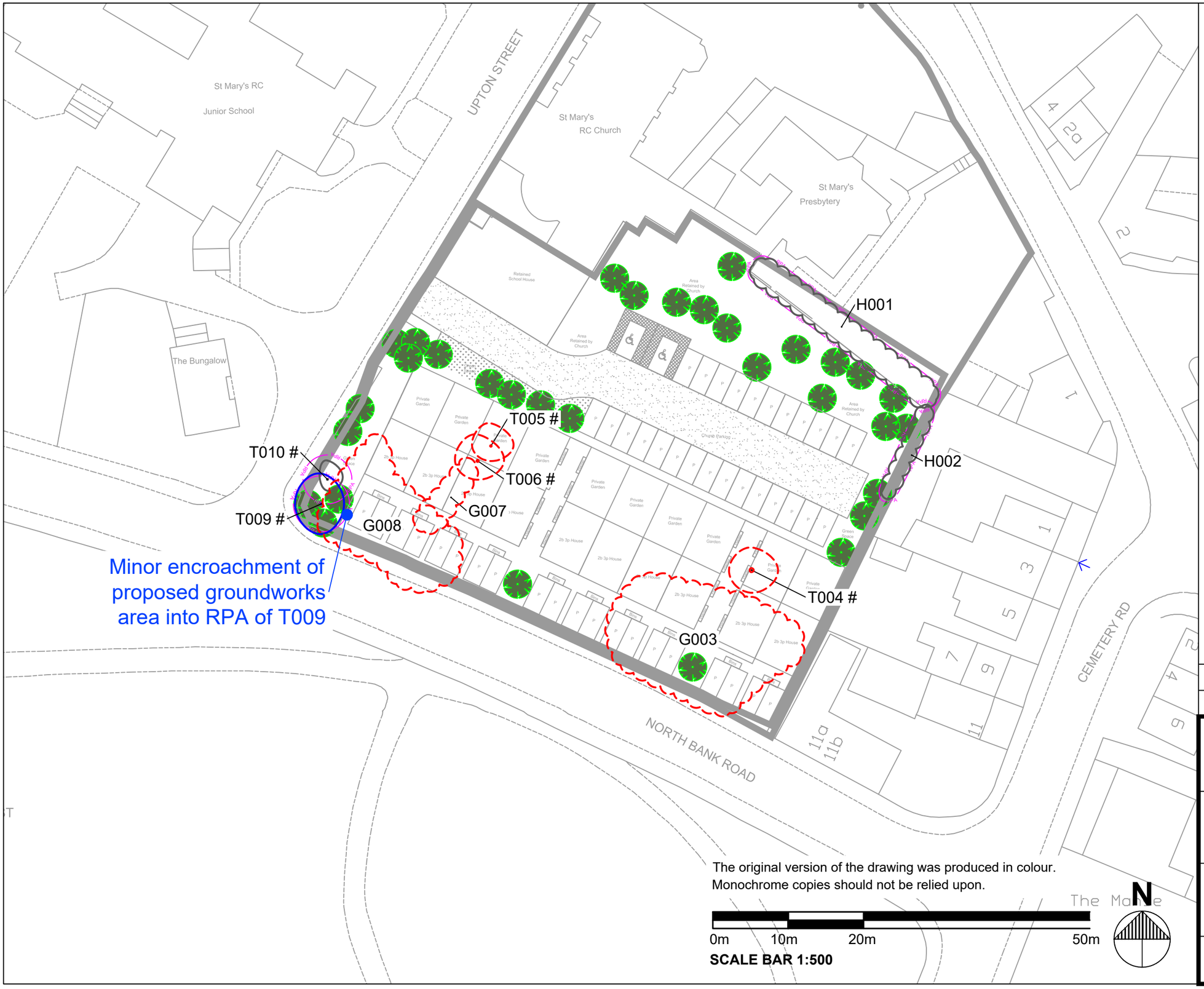
| REV | DATE | DRAWN BY | CHECKED BY | REVISION COMMENT |
|---|---|---|---|---|
| | | | | |

ecus part of CuraTerrae
Brook Holt
Blackburn Road
Sheffield S61 2DW
Tel. (0114) 2669292
www.ecusltd.co.uk

Job
**22796 - St Mary's Primary School Batley**

Title
**Figure 3 - Tree Constraints Plan**

| By | Date | Scale @ A3 | Drg. no. |
|---|---|---|---|
| **DF** | **Jan 2024** | **1:500** | **22796-ARB-01** |

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## GENERAL NOTES

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- Based on topographic survey provided by the client.
- Building layout and masterplan provided by the client.
- Refer to Engineer's details for level and drainage information.
- Check all dimensions on site.
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## KEY

○ Stem Location

# Location Estimated

Tree Categories (BS 5837:2012)

Category A Trees | Category B Trees | Category C Trees | Tree to be Removed

RPA Root Protection Area (RPA)

| REV | DATE | DRAWN BY | CHECKED BY | REVISION COMMENT |
|---|---|---|---|---|
| | | | | |


ecus part of CuraTerrae
Brook Holt
Blackburn Road
Sheffield S61 2DW
Tel. (0114) 2669292
www.ecusltd.co.uk


Job
**22796 - St Mary's Primary School Batley**

Title
**Figure 4 - Tree Impacts Plan**

| By | Date | Scale @ A3 | Drg. no. |
|---|---|---|---|
| DF | Jan 2024 | 1:500 | 22796-ARB-02 |

**General**

This Arboricultural Method Statement (AMS) details the specific measures to be adopted to ensure that the retained trees are suitably protected for the duration of the proposed development.

No equipment, machinery or materials shall be brought onto the site in connection with the development until this AMS has been submitted to and approved in writing by the Local Planning Authority.

**Sequence of Events**

For the purpose of protecting the retained trees, the development works on site should be completed in line with the following sequence of events:

- Pre-commencement site meeting
- Tree works
- Installation of tree protection measures
- Demolition Operations
- Construction operations
- Removal of tree protection measures

**Pre-Commencement Site Meeting**

A pre-commencement site meeting should take place prior to any works being started, to finalise plans for the layout of the tree protection measures and to ensure that all potential issues are adequately considered.

The site developer and the project arboriculturist should be in attendance for the meeting. It may also be a requirement for the LPA tree officer to attend and so prior notification of the meeting should be provided to the LPA.

**Tree Works**

Prior to the commencement of any development operations and the storage of plant, machinery and materials on site, any required tree works should be carried out. The trees to be removed and any pruning works that are required to facilitate the development are detailed in the Tree Survey Schedule at Appendix 1 of the associated arboricultural report.

All tree works should be carried out by a suitably qualified and insured arboricultural contractor and in accordance with the recommendations of BS 3998:2010 Tree work – Recommendations.

It is recommended that trees should be checked in advance of any works by a suitably qualified ecologist to ensure there is no disturbance to nesting birds or roosting bats.

**Tree Protection Fencing**

Prior to the commencement of any development operations and the storage of plant, machinery and materials on site the tree protective fencing should be located as shown. Where possible this fencing should exclude all site activities from the RPA of retained trees, creating a sacrosanct Construction Exclusion Zone (CEZ).

It should be confirmed by the project arboriculturist that the fencing has been correctly set out on site, prior to the commencement of any other operations.

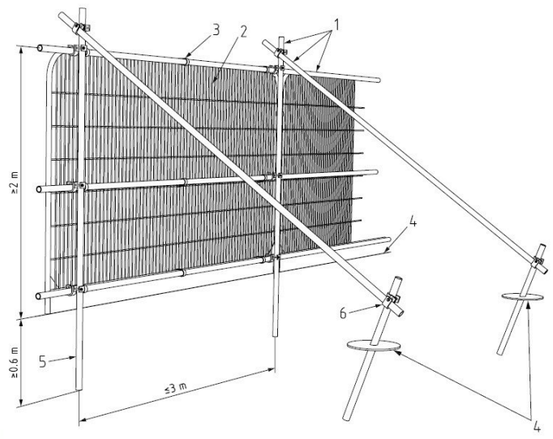
The default specification for tree protection fencing is shown here. However, where the site circumstances and associated risk of damaging incursion into the RPA do not necessitate the default level of protection, an alternative specification should be prepared by the project arboriculturist and, where relevant, agreed with the local planning authority.

An example of an alternative specification is 2 m tall welded mesh panels on rubber or concrete feet. In such cases, the fence panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers should be at least 1 m and should be uniform throughout the fence. The panels should be supported on the inner side by stabilizer struts, which should be attached to a base plate secured with ground pins or mounted on a block tray.

All-weather notices should be attached to the fencing to indicate that operations are not permitted within the CEZ, with words such as “CONSTRUCTION EXCLUSION ZONE – NO ACCESS”.

Once the tree protection fencing has been installed it should not be altered or removed without prior consultation with the project arboriculturist. If the tree protection fencing needs to be re-positioned to allow for development operations to continue, this must be carried out under the supervision of the project arboriculturist and with prior consent from the LPA.

The tree protective fencing must remain in place until all construction operations on site have been completed and all plant and machinery has been removed.




Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

**Installation of Utilities and Services**

Where possible all above and below ground utilities and services are to be directed away from the retained trees. Above ground services should be routed away from tree canopies, allowing sufficient space to allow for likely future crown growth. Below ground services should be grouped together and routed away from the RPA of retained trees.

Any below ground utilities or services that must be routed through the RPA should be installed in accordance with BS 5837:2012 clause 7.7.2 and NJUG 10: Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees.

**Management of Exposed / Damaged Roots**

Provided that works in close proximity to retained trees are carried out in line with the specifications detailed within this report the potential for damage to significant roots is low. However, on occasion approved works that are close to or within the RPA of retained trees can result in accidental root damage or roots becoming exposed.

If any exposed roots are smaller than 25 mm diameter they can be pruned back if required, however roots occurring in clumps or of 25 mm diameter and over should be retained where possible and worked around.

Where the severance of larger roots is unavoidable, the advice of the project arboriculturist must be sought, as such roots might be essential to the tree’s health and stability. It may be determined that the design layout must be slightly altered to allow for the retention and adequate protection of significant roots.

Roots that are heavily damaged or severed during approved works may need to be pruned back using a suitable sharp tool, such as secateurs or a handsaw. The cut must be made cleanly, leaving the smallest surface area possible, and beyond any obvious damage, towards the tree that the root is likely to have come from. If it is not clear which direction the root has grown from, the root should be pruned back to both sides of the damage/severance.

A health and safety assessment should be carried out or a regular monitoring regime put in place for trees that have incurred damage to roots in close proximity to their stems or where the damaged roots are 100 mm in diameter or greater. Such damage could lead to instability or a decline in health and condition.

Exposed roots or roots that have been pruned should be immediately recovered with earth to prevent desiccation. If this is not possible they should be wrapped in hessian sheets which are dry in winter, wet in summer. These should be removed prior to backfilling.

**Landscaping Works**

Where soft landscaping is proposed within the RPA of retained trees, excavations should be kept to the minimum required to provide adequate conditions for the establishment of new shrubs and trees. Excavations should be carried out carefully and by hand, avoiding the severance of any roots larger than 25mm diameter.

Ground levels within the RPA should generally not be altered to avoid the potential for damage to tree roots. Roots are considered to be primarily within the top 0.6 m of the soil. Any excavations have the potential to damage or remove part of the root system and could affect the vigour or stability of the tree. Conversely, increasing the ground level can compact the soil, potentially suffocating the roots and causing them to die off. If minor level changes are unavoidable as part of an approved landscaping scheme, the advice of the project arboriculturist should be sought.

Where fencing is to be installed within the RPA of retained trees this must consist of posts and panels or rails only, trenched footings are not acceptable within the RPA. The holes for posts should be kept to the minimum depth required and excavated using hand tools only.

Fence posts should be erected a minimum of 1.0 m from tree stems. The post locations may need adjusting if significant roots are uncovered, so that the roots remain intact. If wet concrete is to be used, post holes should be lined with an impermeable membrane to prevent soil contamination close to tree roots.

The fencing alignment should allow for a minimum distance of 0.5 m between any tree stem and the fence, providing sufficient room for future growth and minimising the risk of potential conflicts between the fence structure and tree stems.

Any landscaping works that are within the RPA of retained trees or will require the tree protection fencing to be temporarily breached should be carried out in consultation with the project arboriculturist.

**Additional Precautions**

Consideration should be given to site operations outside of the CEZ that could indirectly impact the retained trees, including the provision of adequate space for site cabins, welfare facilities and other temporary structures.

Site operations should take sufficient account of wide or tall loads in order that they can operate without coming into contact with retained trees. The movement of plant in proximity to trees should be supervised by a banksman, to ensure adequate clearance from trees is maintained at all times.

Fires on sites should generally be avoided. Where fires are unavoidable, they should not be lit in a position where heat could affect the foliage or branches of retained trees. The potential size of a fire and the wind direction should be taken into account when determining its location, and it should be attended at all times.

Any materials that could contaminate the ground around tree roots, such as fuels, oils or cement, should be stored and handled well away from the outer edge of the RPA.

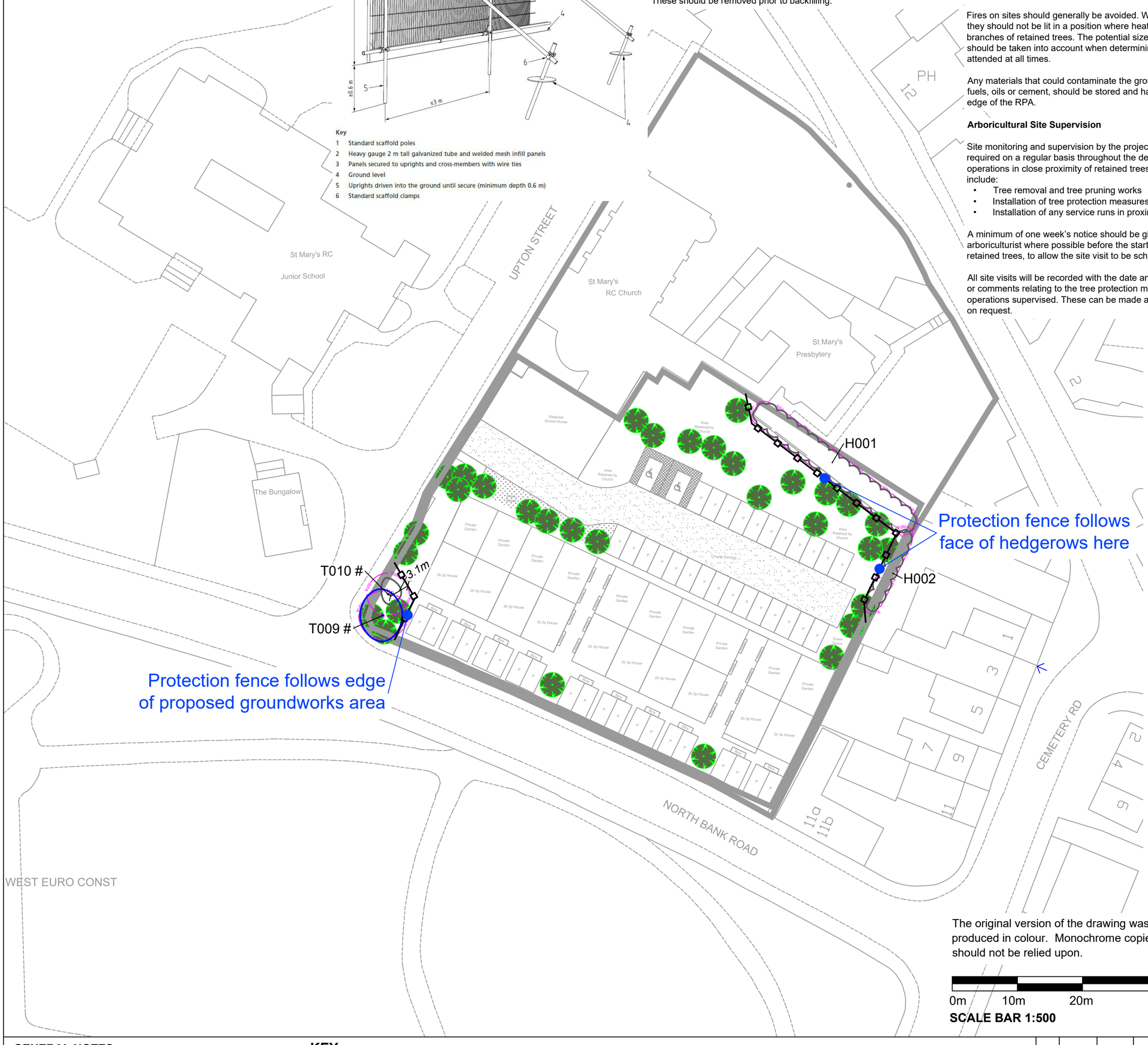
**Arboricultural Site Supervision**

Site monitoring and supervision by the project arboriculturist is likely to be required on a regular basis throughout the development. The specific site operations in close proximity of retained trees that will require supervision include:

- Tree removal and tree pruning works
- Installation of tree protection measures
- Installation of any service runs in proximity to retained trees

A minimum of one week’s notice should be given to the supervising arboriculturist where possible before the start of any works within the RPA of retained trees, to allow the site visit to be scheduled.

All site visits will be recorded with the date and time along with any findings or comments relating to the tree protection measures and the specific operations supervised. These can be made available to the LPA tree officer on request.




The original version of the drawing was produced in colour. Monochrome copies should not be relied upon.

N

0m 10m 20m 50m

**SCALE BAR 1:500**

**GENERAL NOTES**

- Refer to arboricultural report produced by Ecus Ltd titled 'St Mary's Primary School Batley – BS 5837:2012 Arboricultural Report, Impact Assessment and Method Statement'.
- Based on topographic survey provided by the client.
- Building layout and masterplan provided by the client.
- Refer to Engineer's details for level and drainage information.
- Check all dimensions on site.
- Do not scale from this drawing.
- Report any discrepancies and omissions to Ecus Ltd
- This drawing is Copyright.

3RD-PARTY INFORMATION
NB This drawing includes information provided by independent surveyors and / or consultants, to whom all queries shall be made. Ecus Ltd can accept no liability for its context or accuracy.

**KEY**

o Stem Location

# Location Estimated

Tree Categories (BS 5837:2012)

Category A Trees
Category B Trees
Category C Trees

RPA Root Protection Area (RPA)

Tree Protection Fencing

| REV | DATE | DRAWN BY | CHECKED BY | REVISION COMMENT |
|---|---|---|---|---|
| | | | | |


ecus part of CuraTerrae
Brook Holt
Blackburn Road
Sheffield S61 2DW
Tel. (0114) 2669292
www.ecusltd.co.uk


Job
**22796 - St Mary's Primary School Batley**

Title
**Figure 5 - Arboricultural Method Statement**

| By | Date | Scale @ A2 | Drg. no. |
|---|---|---|---|
| DF | Jan 2024 | 1:500 | 22796-ARB-03 |

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