



Arboricultural Method Statement

All Saints' School, Gresford

Client	All Saints' School, Gresford
Agent	Horsley Huber Architects Limited
Site Address	All Saints' School, School Lane, Gresford, Wrexham, LL12 8RW
Arboricultural Consultant	Mike Wood <i>dip Arb</i>
Local Authority	Wrexham County Borough Council
Project Description	Erection of Single Storey Modular Building
Planning Reference	P/2023/0273
Planning Conditions	3
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Contents

1.0 Key Contact Details	1
2.0 Background & Site Context	1
3.0 Tree Welfare & Management	3
4.0 Gresford Conservation Area – Section 211 Notice	4
5.0 General Precautions	4
6.0 Tables of Tasks and Detailed Method	4
Task 1: Site Rules & Procedures	5
Task 2: Tree Pruning	6
Task 3: Installation of the Modular Building	7
Task 4: Mitigation of the Compacted Stone in the RPA of T01	8
Task 5: Final Landscaping and Compensation Tree Planting	9
Task 6: Landscaping Operations	10

Appendix A – Tree Protection Plan

Appendix B – Tree Schedule

Appendix C – Schedule of Arboricultural Supervision and Monitoring



1.0 Key Contact Details

Name	Company	Role	Contact Details
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Jon Brewin	Wrexham County Borough Council	Local Authority Tree Officer	Tel: 01978 298763 Email: jon.brewin@wrexham.gov.uk

2.0 Background & Site Context

- 2.0.1 Tree 21 Limited have been instructed by Horsley Huber Architects Ltd on behalf of All Saints School to produce an Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) to discharge planning condition 3 of planning consent: P/2023/0273.
- 2.0.2 The document follows best practice guidelines in accordance with BS5837:2012 Trees in relation to design, demolition, and construction – Recommendations and practical solutions, based on sound arboricultural knowledge and experience of the author.
- 2.0.3 The document has been produced by Mike Wood *Dip Arb. TechArborA*, Principal Arboricultural Consultant of Tree 21 Limited. Mike Wood has over 25 years' experience in arboriculture, with over 17 years' experience in providing BS5837 surveys, reports, and technical documents, is a certified LANTRA Professional Tree Inspector, a registered Quantified Tree Risk Assessment (QTRA) user and a member of the Arboricultural Association.
- 2.0.4 A site survey was undertaken on 1st August to inform this document. The works include stone base groundworks and concrete strip foundations to site a temporary modular classroom building. The building will be installed in sections with the use of a crane. Underground services will also be installed, which will be outside of the RPA of the surveyed tree, tree group, and hedges. At the time of the survey, the groundworks and concrete strip foundations had already been installed. This included stripping turf and topsoil within a proportion of the RPA of Ash tree, T01 and installing a stone base which had been compacted with a roller. The concrete strip/pad foundations are outside of the RPA.



- 2.0.5 There is a chain-link fence in place which is approximately 1.2m from T01. Beyond this fence, no work has been undertaken. There is no benefit in installing a tree protection barrier around the RPA of T01 as groundworks are already complete on the site side of the chain-link fence. Two lateral branches have also been broken off T01 during the groundworks, by an excavator during the turf and topsoil removal and/or installation of the stone base.
- 2.0.6 With consideration to the work already undertaken, this document provides mitigation measures to help compensate for the groundworks which have taken place and, provides detailed methodology for the remaining tasks associated with this project.
- 2.0.7 The framework and sequencing of tasks related to this document will follow the points below:
- Remedial & Facilitation Tree Pruning Works (T01 only)
 - Ground Protection within Root Protection Areas (RPA)
 - Installation of the modular building
 - Mitigation and Compensation
 - Final Landscaping
 - Arboricultural Supervision
- 2.0.8 By following this document and using it as an instruction manual for works around trees, the remaining works will be undertaken with care and consideration for the adjacent tree, /tree group and hedge. The works within the RPA of T01 will also be mitigated and compensation measures will be implemented.
- 2.0.9 The information within this document will be read and fully understood by the Site Manager and relayed to the operatives on site. Information on how trees on and around the site will be managed from herein until completion of the project is sequenced and detailed in the tables below. The document is intended to be used as a reference on site, providing detailed information on site management around trees. Before the document can be implemented it will need to be approved by Wrexham County Borough Council (WCBC).

WARNING: Failure to comply with the provisions set out in this document could result in breach of planning consent and subsequently may result in an official notice to stop works by the Local Planning Authority.



The Document should be read along with the following appendices:

- Appendix A: Tree Protection Plan
- Appendix B: Tree Schedule (with works)
- Appendix C: Schedule of Arboricultural Supervision and Monitoring

3.0 Tree Welfare & Management

- 3.0.1 When working near trees, it is important to be aware that most tree roots are normally located in the top 600 mm of soil and can spread out horizontally to a distance at least equal to the height of the tree.
- 3.0.2 The distance from the tree in which damage is likely to occur is calculated by the Root Protection Area (RPA), which represents the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain a trees viability. RPAs should be treated as a precautionary area within which activities such as ground compaction, excavation, the storing of materials, ground stripping, raising of levels and building are likely to cause damage to trees and therefore should not take place. Usually, barriers are erected around the RPA to physically exclude such activities.
- 3.0.3 As the turf and topsoil has already been stripped within a part of the RPA of T01, at this site and compacted stone installed, protective barriers around the area of the RPA exposed to the site will not benefit the tree and therefore, no provision for protective barriers are included in this document. There is a tarmac hard surface in the main car park, so tree protection barriers to protect the RPA of G02, H03 & H04 are also not required. The compacted stone within the exposed RPA of T01 (minimum area illustrated on the Tree Protection Plan at Appendix A) will be removed immediately following the installation of the modular building (late August/early September 2023). If the modular building is not installed by this time, the mitigation works in this area will still be undertaken, to prevent the stone being in place for any prolonged length of time.
- 3.0.4 The damage in the RPA will be mitigated with suitable technical measures as provided in Table 4 below. Compensation will also be provided by planting up to 10 new trees at the rear of the new building. The new trees will comprise of native species of local provenance. This tree planting will also seek to meet the objectives of the WCBC Tree and Woodland Strategy and the Welsh Governments Planning Policy 11 to provide a net benefit for Biodiversity.



4.0 Gresford Conservation Area – Section 211 Notice

- 4.0.1 As the site falls within Gresford Conservation Area, this document should also be taken as a 6 week notice under Section 211, for tree pruning works to the Ash tree T01. The proposed work is detailed in the Tree Schedule at Appendix B and detailed in Task 2 below.

5.0 General Precautions

- 5.0.1 In general, the following procedures will also be followed. No materials that are likely to have an adverse effect on tree health will be stored or discharged within the RPA of the tree/ group and hedges.
- 5.0.2 The site is relatively flat. However, if any materials are to be stored which has the possibility of leaching down slope and contaminating RPAs, ground barriers will be put in place at ground level to minimise the risk of spillages. Such materials include:
- Fuel and oil
 - Bitumen
 - Cement & Concrete
 - Building Sand
- 5.0.3 Fires on sites are not permitted, as can damage foliage or branches.
- 5.0.4 Concrete will not be mixed or transported over unprotected ground within the RPAs.
- 5.0.5 Any incidents involving potential damage to retained trees will be recorded on site and a copy of the incident made available to the Local Authority Tree Officer within 48 hours.

6.0 Tables of Tasks and Detailed Method

- 6.0.1 The tables below provide detailed methods on each task and how they are to be undertaken, along with general tasks which may be required to complete the works. Any deviation from the methods set out in the tables below will be discussed and agreed with the Arboricultural Consultant and/or the Local Authority before being implemented.



Task 1: Site Rules & Procedures

Method and Action Required
1) No storage of materials, welfare units, equipment or other construction related paraphernalia will be stored, even temporary in Root Protection Areas. 2) Any further incidents of damage to the tree, tree group or hedges are to be reported to the Arboricultural Consultant and the Local Authority as soon as possible and no longer than 24 hours. 3) Access/egress for the crane and the modular building will use the point between H02 and H03 and will only park and work from the existing tarmac area. 4) The removal of the stone, aeration of the ground and installation of the topsoil/bio-char mix in the area of the RPA of T01 will be overseen by an Arboricultural Consultant (AC). The AC will at this time, also inspect the tree pruning work to confirm that the work is of sufficient quality. The AC will then complete a supervision report form and provide this to the Local Authority Tree Officer. 5) Any further improvements required will be confirmed in writing to the school management and another visit will take place to check the improvements have been made (if applicable).



Task 2: Tree Pruning

Method and Action Required
1. The tree pruning work will be undertaken before the crane and modular building sections arrive on site. 2. Tree pruning of T01 (detailed in the tree schedule at Appendix B) will be undertaken by qualified arborists working to British Standard 3998:2010 Tree Work – Recommendations. 3. The 4 x damaged branch stubs where branches have been ripped off by an excavator will also be cut clean to branch collars, during this work. 4. All arsing, including the broken branches will be chipped and either reused on site or removed from site. 5. An Arboricultural Consultant (AC) will check the quality of the pruning work during the supervision work on Task 4 below. Any improvements needed will be specified to the school and the improvement works will be undertaken within 2 weeks and re-inspected by the AC.



Task 3: Installation of the Modular Building

Method and Action Required
1) The access/egress of the crane and HGV with sectional modular building will use the existing access between H02 & H03. 2) The crane and HGV will operate from the tarmac surfaced car park and lift the building sections into place from this position. 3) The crane will be assisted with a banksman and the sections will be lifted in a counterclockwise direction to avoid lifting over G02 and T01. 4) Any damage to any tree, tree group or hedge during the installation procedure, will be reported to the Arboricultural Consultant (AC) within 24hrs. A site visit would then be undertaken by the AC to determine the extent of any damage. A site report form with remedial work specifications would then be submitted to the Local Authority Tree Officer and provided to the school management to enable the works.



Task 4: Mitigation of the Compacted Stone in the RPA of T01

Method and Action Required
1) Following installation of the modular building, the stone which is in place within the exposed area of the RPA of T01 will be removed. The stone will remain in place during installation of the building, to avoid any potential further damage of the ground below, during installation of the modular building. 2) The removal of the stone can be undertaken with the use of a mini-excavator (<2T), using a non-toothed bucket (to avoid potential root damage in the soil below). The machine will operate from outside of the RPA. If the machine cannot access the stone area, then the stone will need to be removed with hand tools. 3) Once the stone is completely removed from the area shown on the Tree Protection Plan, the ground will be aerated with either a plug aerator or a spike aerator, and/or lightly loosened with a garden fork. This operation will be undertaken on foot with hand tools/pedestrian operated equipment. 4) On completion of the aeration, the ground will be watered before applying a topsoil and bio-char mix. The topsoil will either be the removed topsoil or good quality screened BS3882 certified topsoil, from a reputable supplier. 5) The topsoil and bio-char will be mixed at a ratio of 3 parts topsoil to 1 part bio-char and mixed thoroughly before being applied. The depth of application will be a minimum of 50mm and a maximum of 100mm. 6) The final turf surface can then be installed (turf has been specified by the school as opposed to bark/woodchip or stone chippings due to maintenance and health and safety requirements). 7) Ski netting held in place with road pins and a sign such as 'Keep Off' will be installed at the edge of then turf, whilst the final landscaping is completed, or the turf is established. 8) An Arboricultural Consultant will oversee points 2-5 to ensure the methodology is applied properly.



Task 5: Final Landscaping and Compensation Tree Planting

Method and Action Required
1) Once tasks 1-4 are complete, final landscaping in the wider area will be completed. This may include additional hard and soft surfaces. The orange ski netting will be maintained in place during these tasks. 2) New tree planting will be sited in soft ground, to the rear of the modular building, or in the wider green space. 10 new trees will be planted. 3) Trees will be native broadleaved species of local provenance from a reputable supplier and the planting work will follow the guidelines set out within British Standard BS8545: Trees-from nursery to independence in the landscape – Recommendations.



Task 6: Landscaping Operations

Method and Action Required
1) The Arboricultural Consultant will review any landscape operation that involves works within the RPAs of retained trees and input additional site-specific methodology where necessary. Additional methodology will be agreed with the Local Authority Tree Officer before proceeding with the work. General rules for post and fence installation are listed below. 2) No plant or vehicles will enter soft areas of ground within the RPA. 3) No excavation will occur within the RPA, with the exception of small, localised post holes for fencing. 4) Post holes will be dug by hand and if significant roots are encountered (>25mm), the hole will be backfilled, and an adjacent location found. 5) Small roots can be pruned flush with the soil profile with clean disinfected secateurs or a pruning saw. 6) If concrete is to be used to secure posts in holes, then an impermeable barrier is to be used between the concrete and the soil profile to prevent potential toxicity to tree roots. 7) If undulations need to be levelled, then sharp sand (not marine-derived sand, e.g., builders' sand, which is too alkaline) will be used and no excavation will be undertaken. 8) Fence panels will be fixed to posts and span between the posts without digging trenches.



Appendix A

Tree Protection Plan

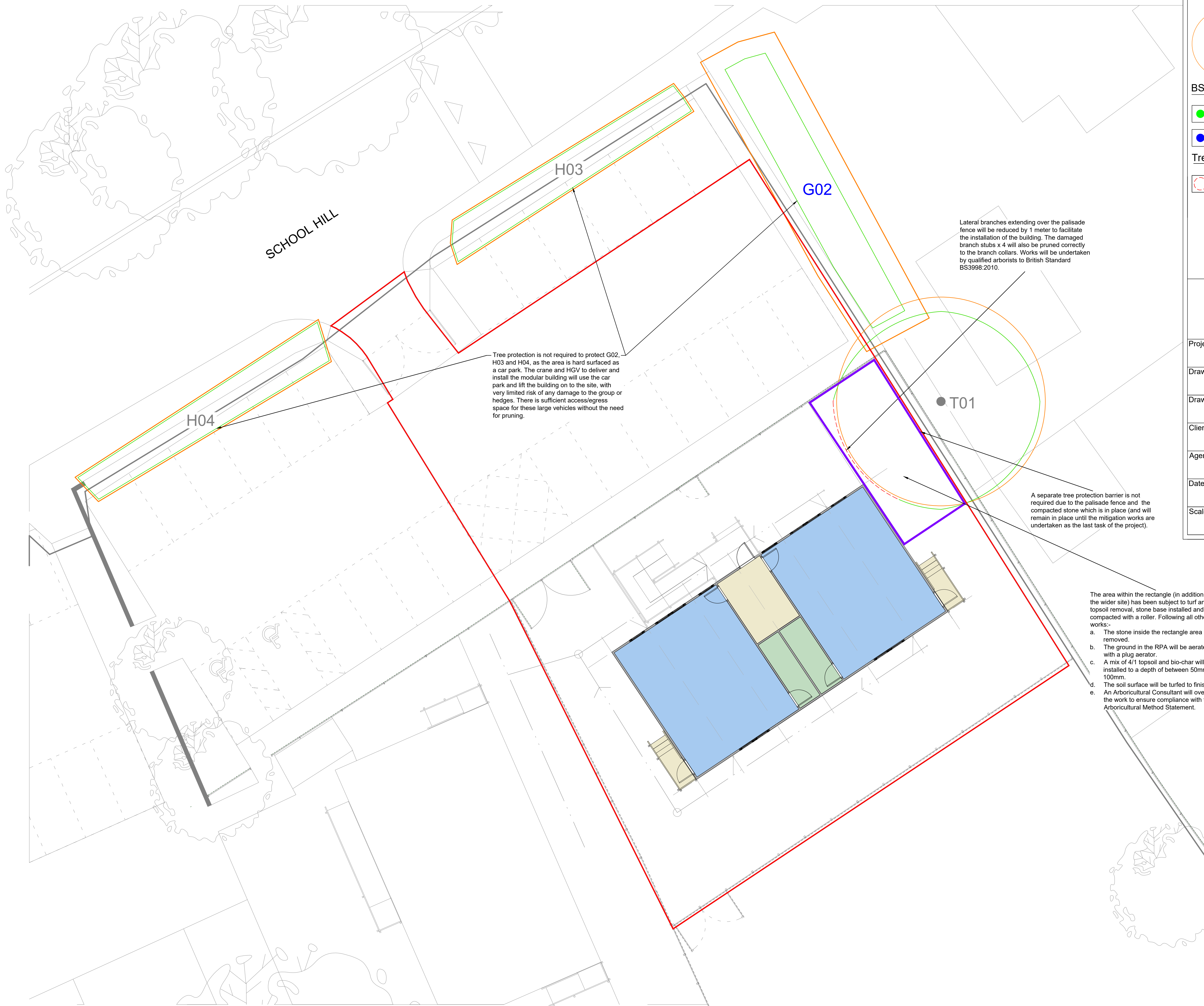


Diagram illustrating the components of a tree's spatial data:

- Root Protection Area (orange circle)
- Canopy Spread (green circle)
- Tree Position, (colour represents retention category) (blue dot)
- Tag Number (T03)

Category A Trees
High Quality

Category B Trees
Moderate Quality

Category C Trees
Low Quality

Category U Trees
Poor Quality/
Remove

 Proposed Tree Removal

 Tree Protection Fencing



Scale: 1:100 @A1



Appendix B

Tree Schedule

BS5837 Survey Data



Ref.	Species	Measurements	General Observations	Category	Recommendations
G02	Damson (<i>Prunus domestica</i> ssp. <i>insititia</i>) Common Ash (<i>Fraxinus excelsior</i>) Common Holly (<i>Ilex aquifolium</i>)	Height (m): 5 Stem Diam(mm): 250 Spread (m): 1.5N, 1.5E, 1.5S, 1.5W Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Unmanaged bounday hedge behind chain link fence.	B2 RPA Area: 79 sq m.	Pre construction: No action required. During construction: No action required. Tarmac surface in place, limited to vehicle parking and mobile crane access area. Post construction: No action required.
H03	Common Hawthorn x15 (<i>Crataegus monogyna</i>)	Height (m): 2 15 stems, avg.(mm): 10 Spread (m): 0.5N, 0.5E, 0.5S, 0.5W Crown Clearance (m): 0 Life Stage: Mature Rem. Contrib.: 20+ Years	Maintained boundary hedge.	NotRecorded RPA Radius: 0.1m. Area: 32 sq m.	Pre construction: No action required. During construction: No action required. Tarmac surface in place, limited to vehicle parking and mobile crane access area. Post construction: No action required.

Ref.	Species	Measurements	General Observations	Category	Recommendations
H04	Common Hawthorn x15 (Crataegus monogyna)	Height (m): 1.5 15 stems, avg.(mm): 10 Spread (m): 0.5N, 0.5E, 0.5S, 0.5W Crown Clearance (m): 0 Life Stage: Mature Rem. Contrib.: 20+ Years	Maintained boundary hedge.	NotRecorded RPA Radius: 0.1m. Area: 32 sq m.	Pre construction: No action required. During construction: No action required. Tarmac surface in place, limited to vehicle parking and mobile crane access area. Post construction: No action required.
T01	Common Ash (Fraxinus excelsior)	Height (m): 8 2 stems (mm): 450,180 Spread (m): 5N, 5.5E, 6S, 6W Crown Clearance (m): 2.5 Lowest Branch (m): 4(W) Life Stage: Early Mature Rem. Contrib.: 10+ Years	2 x broken branches (stubs) on south aspect around 50mm dia. 2x broken branches (stubs) on south west aspect, c. 40mm dia. Included bark at fork around 1m. No signs of Ash dieback observed. Fair overall Physiological and Structural condition at the time of the survey. Tree is set back 1m from chainlink fence near boundary. Previously crown lifted to approximately 4m over site. Low crown is limited to North West. Recent turf and upper topsoil removal 1.3m from tree to prepare area for pad foundations. Approx. 200mm of stone installed, rolled and compacted in place, over ground following turf and upper topsoil removal . Tree is 5m from concrete pad to site temporary classroom on. Concrete pad comprises 150mm compacted stone foundations & 150mm concrete pad. DBH estimated due to access restrictions.	C1 RPA Radius: 5.8m. Area: 106 sq m.	Pre construction: Already commenced. During construction: Tree will require pruning by 1m to shorten the lateral branches extending over the palisade fence in order to facilitate the installation of the modular building by the crane. This will also improve the space between the tree branches and the building, once installed. Works to be undertaken by qualified Arborists working to BS3998:2010. Post construction: Remove compacted stone within the area of the Root Protection Area that extends beyond the palisade fence as shown on the Tree Protection Plan. Aerate the area with a plug aerator to alleviate potentially compacted soil. Add 100mm of clean graded topsoil over the area, with permeable membrane above and finish with loose gravel.

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
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	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
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	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2



Appendix C

Schedule of Arboricultural Supervision and Monitoring



Schedule of Arboricultural Supervision and Monitoring

Site	All Saints School, Gresford
Contractor	Unknown
Site Contact	Richard Hatwood (Head Teacher) Telephone: 01978 852342 Email: headteacher@allsaints-pri.wrexham.sch.uk
Local Authority	Wrexham County Borough Council
Arboricultural Consultant	Mike wood Telephone: 07971 287767 Email: info@tree21.co.uk



Task Number & Description	Arboricultural Role
Task 2: Tree Pruning	Works will be quality checked during the supervision works of Task 4 below.
Task 4: Points 2-5	Supervision of the stone removal, soil aeration and installation of the topsoil/bio-char mix.