



HOMEFIELD PRIMARY SCHOOL

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1. Introduction

1.1 Terms of reference

AtkinsRéalis has been commissioned by West Sussex County Council (WSCC) to undertake a tree survey in accordance with the British Standard BS5837:2012 '*Trees in Relation to Design, Demolition and Construction – Recommendations*' to support the Homefield Primary School Scheme (hereafter referred to as the Proposed Scheme).

The school is in the town of Worthing in West Sussex (hereafter referred to as the Site).

The survey data captured follows BS5837:2012 guidance as set out in Appendix A of this report. The survey data is presented in a schedule in Appendix B. A glossary of relevant terms is included in Appendix C.

This report is an Arboricultural Impact Assessment (AIA), focusing on the trees within the extents of the Proposed Scheme and on its boundaries. It reports on the impacts on the recorded trees from the proposals and is supplemented by the production of a Tree Protection Plan (TPP), which is included within Appendix D of this report.

It also confirms whether any of the recorded trees could be classified as veteran specimens. The veteran classification includes trees which might also be classified as ancient.

1.2 Site location

The Site is located within the town of Worthing on Chesswood Road at Ordnance Survey National Grid reference (OSNGR) TQ 15445 03547. The Site is set within a residential area with railway land to the north and residential housing to the remaining boundaries. The redline Site extents are shown on the TPP. Figure 1-1 shows the location of the school and the surrounding area for context.

Figure 1-1–Site location and context



1.3 The Proposed Scheme

The Proposed Scheme involves the development of a new classroom building to facilitate the amalgamation of the Lyndhurst Infant School and Chesswood Junior School onto the Site and the relocation of a Special Support Centre for children with Social Communication Needs.

The wider Site comprises existing infrastructure to support the school, including hard surface play areas, car parking, grassed sports pitches and the school buildings. There is a nature space at the northwest corner of the Site, with a pond area and informal green space.

The Proposed Scheme is shown on the TPP (Appendix D), which have been used to confirm the impact of the current proposals on the tree stock within and adjacent to the Site extents.

1.4 Scope of works

This report presents arboricultural information captured by an AtkinsRéalis' Arboriculturist and the report has been prepared by the AtkinsRéalis Associate Arboriculturist and Landscape Manager Thomas Dale BSc (Hons), Cert Arb L6 (ABC), M.Arbor.A.

The scope of works includes:

- The preparation of a tree schedule of all trees surveyed.
- The preparation of a TPP showing all trees surveyed within the Site and on its boundary extents including root protection areas, identifying trees to be removed and retained, including the provision of preliminary protection measures for retained trees.
- The preparation of an AIA which incorporates the survey schedule and associated TPP.

This report has been prepared by an Arboriculturist with over 21 years' experience, and who is a Professional Member of the Arboricultural Association with a Level 6 qualification in Arboriculture.



2. Methodology

2.1 General

This tree survey has been undertaken in accordance with BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations. The standard gives recommendations and guidance on the relationship between trees and the design, demolition and construction process, setting out the principles and procedures to be applied to achieve a harmonious and sustainable relationship between trees and structures.

BS5837:2012 does not set explicit parameters for measuring the sensitivity of an arboricultural resource; nor does it assess the magnitude of impact of a Proposed Development on trees (other than by providing a record of the number or area of trees that would need to be removed to facilitate the development as presented at time of submission). Rather, the British Standard provides parameters which enable the Arboriculturist to assess the quality of all the trees and other arboricultural features that may be affected by the development that is proposed.

Whilst the BS categories are open to varied interpretation, the guidelines in the cascade chart of BS 5837:2012 (see insert A.1 in Appendix A of this report) provide details on how to determine tree qualities and can be used to inform the design process to retain those trees of higher quality where possible.

2.2 Planning policy and definition of veteran trees

The definition of veteran trees for the purposes of this assessment follows the core standing advice and planning policy.

The ‘Standing Advice’¹ on ancient woodland, ancient trees and veteran trees provides guiding principles for the classification of ancient and veteran trees. These principles are also covered within the Forestry Commission and Natural England (NE) guidance.

The standing advice clearly defines veteran trees as:

“All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value”.

There is a degree of ambiguity in its definition but it does provide clear guiding principles, namely that veteran trees have:

- Decay features, such as branch death and hollowing; and
- These features contribute to its biodiversity, cultural and heritage value.

The definition of ancient trees supplements this by focusing the definition of veteran trees arguably (but not definitively) on:

- Great age;
- Size;

¹ <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>

- Condition;
- Biodiversity value as a result of significant wood decay and the habitat created from the ageing process; and
- Cultural and heritage value.

Very few trees of any species become ancient.

As such this assessment has proceeded on the basis that the classification of veteran trees should take account of the specific features of trees (size and condition) alongside their biodiversity, cultural and heritage value.

The relevant planning policy is detailed within the National Planning Policy Framework (NPPF) 2018 (and subsequently updated so the latest published version is December 2024). The NPPF provides a joint definition of an ancient or veteran tree:

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

This definition extends that within the standing advice to include additional criteria:

- Exceptional biodiversity, cultural or heritage value;
- Old relative to other trees of the same species.

Therefore, in line with this policy veteran trees have been classified in accordance with:

- Size.
- Condition (decay features, such as branch death and hollowing, plus associated species).
- Exceptional biodiversity value as a result of significant wood decay and the habit created from the ageing process.
- Exceptional cultural and heritage value.
- Old relative to other trees of the same species.

Further guidance to assist in classifying trees as old for their species based on stem size criteria was obtained from Figure 1.3 ‘Chart of girth in relation to age and developmental classification of trees’ from the *Ancient and other veteran trees: further guidance on management* (Lonsdale, 2013). This lists tree species against ascending girth measurements to help define whether a tree is locally notable; veteran/notable; ancient or late ancient.

This chart is not definitive and further criteria as detailed previously is also used in the classification of the trees as veteran or locally notable.

Locally notable trees for the purposes of this assessment include those that can be defined as mature and standing out locally because of large size in comparison to other trees in locality or given the presence of veteran habitat features, but do not meet the criteria to be deemed a veteran tree in line with the approach adopted.

The Woodland Trust’s Ancient Tree Inventory was also accessed (August 2025) to identify if any trees with the Site extents have been registered on the Trust’s inventory as veterans or ancient specimens. This is a material consideration as part of this assessment. However, it does not imply the Arboriculturist agrees with their classification, as the approach may have differed to that applied by the Arboriculturist and author of this report.



The NPPF was updated in July 2018 to provide greater protection for veteran trees (and subsequently updated so the latest published version is December 2024). The pertinent section is paragraph 193 c), which states: *‘Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists’*.

Further planning policy is covered within the WSCC Planning Compliance and Enforcement Plan (June 2015) and the Worthing Local Plan (2013) – policy DM18(d) and DM19. .

2.3 Statutory protection

Trees may be protected through a Tree Preservation Order (TPO) or through being located within a Conservation Area. The law on TPOs is in Part VIII of the Town and Country Planning Act 1990 as amended and in the Town and Country Planning (Tree Preservation) (England) Regulations 2012.

A TPO is made by a local authority in respect of a tree(s) as the tree is considered to bring amenity value to the surrounding area. A TPO makes it an offence to cut down, uproot, lop, top, wilfully damage or wilfully destroy a protected tree without authorisation.

The TPO and Conservation Area information has been provided by Adur & Worthing Councils and detailed in section 3.7 of this report.

2.4 Spatial scope

The survey works focused on trees within the Site extents and those adjacent where these could be impacted upon by the Proposed Scheme.

This AIA is targeted at the impacts on the trees. It does not cover the subsequent impacts such tree removal would have on ecological or landscape receptors which are outlined in specialist documentation provided by these professional disciplines, where appropriate.

The TPP (see Appendix D) illustrates the trees that have been surveyed.

2.5 Survey

The approach to the survey involved a ground-level walked assessment by qualified and experienced Arboriculturist.

The locations of individual trees and the start and end points of groups were, where possible, plotted using proprietary GIS data capture software on Trimble hand-held mobile mappers. These locations were verified using available aerial imagery and topographical survey data showing tree locations.

The arboricultural features were numbered sequentially from 001: individual trees recorded were prefixed with a ‘T’ (e.g. T001), groups of trees with a ‘G’ (e.g. G002) and hedgerows with a ‘H’ (e.g. H003).

No numbered tree tags were used for the survey, but where already fixed to trees these were noted within the survey schedule.



2.6 Data gathering

Data was collected following the guidance of BS5837:2012, as outlined in Appendix A of this report. The purpose of the tree categorisation method applied by the Arboriculturist was to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained if development is to occur.

For a tree to qualify under any given category, it should fall within the scope of that category's definition as defined in Appendix A of this report (categories U, A, B, C) and, for trees in categories A to C, it should qualify under one or more of the three subcategories (1, 2, 3). Subcategories 1, 2 and 3 are intended to reflect arboricultural and landscape qualities, and cultural values, respectively.

Trees were recorded as individual specimens, groups or hedgerows. Where trees were not recorded as an individual specimen, the tree survey data within the schedule is based on what is a reasonable average measurement of the trees/shrubs within the group extents or it's taken from one of the largest specimens within the group.

This level of survey meets the requirements of BS5837:2012, which states that *'trees growing as groups or woodland should be identified and assessed as such'*. The standard defines the term group as *'trees that form cohesive arboricultural features either aerodynamically (e.g., trees that provide companion shelter), visually (e.g. avenues or screens) or culturally including for biodiversity (e.g. parkland or wood pasture)'*.

Crown spreads of the surveyed trees were given as an average measurement where the tree's crowns were balanced or where recorded as a group. If there was a notable difference in crown spread to a cardinal point, these were recorded. The average measurement was taken from the cardinal point relevant to the direction of the Proposed Scheme.

This level of survey is deemed sufficient by the Arboriculturist to establish the extent of the crown spread in the direction of the Proposed Scheme. All crown spread measurements should be taken from the tree survey schedules (see Appendix B). The method of measuring diameters is defined in Appendix A of this report and has been applied where access permitted.

2.7 Limitations to survey

Where access permitted, trees were identified and inspected from ground level only and were not climbed. No invasive examination techniques (such as increment boring, or internal decay detection) were carried out and as such no assessment of the internal condition of the wood of these trees can be given.

The tree survey undertaken is not intended to be a tree risk management survey targeting safety-related issues. However, where specific hazards have been identified these have been recorded and management recommendations provided. These are detailed within the tree survey schedules (see Appendix B).

Validity, accuracy, and findings of the tree locations will relate directly to the accuracy of the supplied topographical survey data, available aerial imagery and the GIS data capture software used by AtkinsRéalis. The locations of the trees may require verification on Site.

Where tree groups have been illustrated as an outline this covers the extents of the tree group. It does not always illustrate individual trees within the groups. Where individual trees were identified they were plotted separately.

The report does not comment on possible effects of trees on neighbouring properties, including in relation to subsidence or heave, or with regard to possible hazards presented by trees surveyed.



Trees are living organisms subject to changes outside human control. Trees and their environment alter with the seasons, and it is as well to inspect trees whilst in full leaf and when out of leaf. Following harsh or unexpected weather conditions, or heavy storms it is also prudent to inspect trees. Changes to ground water conditions will affect the root growth of a tree. Such changes are not always the result of human influence and other factors may be involved.



3. Existing Site conditions

3.1 Existing land use

The existing land use comprises facilities to support the primary school. This includes hard and soft surface areas. The soft surface spaces include a nature area at the northwest corner of the Site. This includes a pond area.

3.2 Site topography

The Site is set broadly at grade. The adjoining railway land to the north is set higher than the level of the Site, with local retaining structures.

3.3 Soil assessment

No soil assessment was carried out on site by the Arboriculturist, although baseline data on the British Geological Survey website (<http://www.bgs.ac.uk>) indicate that the Site has a London Clay formation bedrock geology, with sedimentary superficial deposits of “River Terrace Deposits, sand, silt and clay”.

Where clay-based soils are present, the ground may be susceptible to volumetric changes resulting from the uptake and release of moisture by tree roots, which may influence any potential foundation development.

3.4 Existing trees

The existing trees are a mixture of species and age classifications. There were 42 number arboricultural features recorded as part of the survey, of which there none were classified as Category A; 17 no. as Category B; 24 no. as Category C and 1 no. as Category U.

The survey did not record any trees categorised under BS criteria as being ‘Category A’, such trees are “*of high quality with an estimated remaining life expectancy of at least 40 years*”.

The trees categorised under BS criteria as being Category B’ are trees “*of moderate quality with an estimated remaining life expectancy of at least 20 years*”. These trees are a mixture of species including sycamore, willow and common lime, forming part of formal and informal groups, and occasional sporadic trees growing on or close to the boundaries of the Site.

Group G003 (G003A-G003K) are self-set sycamores growing on railway land. There are varying root barriers to growth into the Site including a concrete wall/ plinth between the trees and the internal school fence. The trees are also at a higher level than school grounds - approx. 300mm to the west, and 900mm to the east. There is also a pond area at the west extents of the Site, which will restrict roots in this location to the north edge of the pond. The trees are of low arboricultural value but collectively provide screening between school and railway line.

Trees categorised under BS criteria as being ‘Category C’ are trees “*of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm*”.

These trees generally were generally part of formal and informal groups, with planted and self-sown trees recorded. The species present include sycamore, red oak, cherry and whitebeam. The relatively young age of the trees was the primary reason for their lower classification.



Trees categorised under BS criteria as being 'Category U' are 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*" – and recommended for removal where deemed to be posing an unacceptable risk to adjacent people or property. Trees in G020 were recorded as a BS Category U group. Whilst the trees have not been recorded for any works, these have been topped in height and showing signs of poor vitality at the time of the survey.

The survey schedule in Appendix B provides information on the recorded trees and includes preliminary management recommendations. These recommendations being in relation to tree risk management operations, including if the Proposed Scheme were to proceed and where this would bring people or property in closer proximity to the trees.

3.5 Veteran trees

No veteran trees have been recorded by AtkinsRéalis' as part of their survey and none were shown on The Ancient Tree Inventory when checked in January 2026 [Tree Search - Ancient Tree Inventory \(woodlandtrust.org.uk\)](https://www.woodlandtrust.org.uk/tree-search/).

3.6 Ancient Woodland

On review of the MAGIC mapping facility (January 2026) provided by DEFRA ([www.defra.gov.uk](https://www.defra.gov.uk/magic/)), no registered Ancient and Semi-Natural Woodland have been identified within or directly adjacent to the Site extents:

3.7 Statutory protection

The Adur & Worthing Councils Planning Department confirmed via email on 6th February 2026 that there are no TPOs or Conservation Areas that maybe impacted upon by the Proposed Scheme.

Trees should be checked for protected species before works are undertaken. While it is outside of the scope of this tree survey to comment on the confirmed or likely presence of protected animal species.

Bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 (as amended), which makes it an offence to deliberately disturb bats or damage or destroy their breeding sites or resting places. All wild birds, their nests (while in use or being built), and their eggs are protected under the Wildlife and Countryside Act 1981 (as amended)



4. Arboricultural impacts

4.1 General

This report determines the impact of the Proposed Scheme on the recorded tree stock. It provides details on the recorded trees including their condition and in some cases suitability for retention.

The report is supplemented by the TPP (Appendix D) that illustrate the Proposed Scheme layout and the recorded trees, including those that would require removal to facilitate the works.

The TPP is drawing number:

- 100124937-ATK-XX-XX-D-L-401003

The impacts have been based on review of the recorded tree data and how the proposals would encroach into areas around or between the trees and the Proposed Scheme. In some cases, a reasonable judgement has been made by the Arboriculturist in establishing removals based on existing Site conditions that may influence root morphology/spread and how the Proposed Scheme would encroach into previously undisturbed soft surfaces adjacent to trees.

Section 5 of this report contains an Arboricultural Method Statement; this includes protection measures and pre-commencement activities to facilitate the works whilst retaining trees. These measures are generic in some cases. However, where applicable they have been included for adherence should the Proposed Scheme be approved. The Local Planning Authority may deem the AMS section sufficient to avoid the need for conditional approval in relation to trees. In some cases further details may be required and these would need to be considered by the LPA as part of the approval process.

The tree survey schedule within Appendix B of this AIA covers all the trees recorded as part of this assessment in line with the BS5837:2012 guidance and covers the removals to facilitate the Proposed Scheme.

4.2 Root protection areas

The root protection area (RPA), as defined in the BS5837:2012, is 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 is treated as a priority. This area should be protected from disturbance "in order to avoid unacceptable damage to the tree as a result of severance or asphyxiation of the root system."

The recommended minimum area (m²) to avoid potentially harmful disturbance has been calculated and entered into the tree schedules (see Appendix B) for all trees. The RPA for each individual tree has been illustrated on the TPPs as a circle centred on the tree's stem, while the RPAs of the tree groups and woodlands have been illustrated as an offset from the canopy extents, unless trees have specifically been recorded within the groups.

The calculation of the RPA does not consider existing Site conditions that could affect the morphology of the tree roots, and 'modifications to the shape of the RPA' (para 4.6.2; BS5837:2012) can be undertaken through arboricultural assessment. Such modifications have not been undertaken for this assessment. Where existing hard infrastructure is located the spread of the tree roots is likely to be highly modified and this has been factored into determining the impacts of the Proposed Scheme.



4.3 Arboricultural impacts and mitigation

The table below reflects the tree totals for the surveyed trees that require removal to facilitate the works. This includes numbers of trees to be removed and also areas to be removed where tree groups were recorded as an outline.

Table 4-1 – Arboricultural impact table

Arboricultural Features	BS Category Reference			
	Category A	Category B	Category C	Category U
Individual tree	0	0	T031 T032	0
Individual tree within Groups	0	0	0	0
Groups	0	0	0	0
Hedgerows	0	0	0	0

These two trees are currently located directly within the footprint of the Proposed Scheme. Where trees are partly within the footprint of the works the Arboriculturist has used the percentage of RPA encroachment to determine whether a tree could be retained, also based on existing site conditions that could have inhibited root development.

Where over approximately 20% of their RPA is severed by the works the tree has been identified for removal. The 20% figure is referenced within BS5837:2012 for what is deemed potentially acceptable in terms of RPA infringement. But this is also dependant on existing site conditions, which have also been considered by the Arboriculturist.

Where the works do encroach into areas of soft surfaces within the RPAs of trees, the Arboriculturist has looked at existing topography, the presence of any underground utilities, or other factors that may limit radial root spread and influence decisions over the retention of trees.

Similarly, where the Arboriculturist considers that the works could be installed using specific mitigation measures, such as arboricultural supervision, hand excavations or using no-dig construction approaches then the default at this time is to show the trees for retention

The Proposed Scheme has been aligned to enable the retention of higher quality trees and to try to avoid tree loss where possible.

The loss of the two low quality trees is unavoidable. The impacts of the tree loss on ecological or landscape receptors are outlined in specialist documentation provided by these professional disciplines. As part of the Proposed Scheme replacement planting is to be provided to compensate for those lost to facilitate the works.

In some cases, mitigation measures will be required to permit the construction of the Proposed Scheme and retain trees, this includes the provision of protective barriers, arboricultural supervision and hand excavations. These details and some mitigation measures are covered in section 5 of this report as part of an outline Arboricultural Method Statement and specific notes captured on the TPP.

It is to be noted that trees have been shown for retention where the encroachment into their RPAs involves work to areas of existing hard surfacing or areas not conducive to tree root growth, namely the pond area beyond its bank nearest to the trees.



4.4 Arboricultural impacts - TPO trees

No TPO impacts recorded or trees within a Conservation Area.

4.5 Arboricultural impacts – veteran trees and Ancient Woodland

No veteran tree or Ancient Woodland impacts recorded.

4.6 Preliminary management recommendations

The tree survey schedules (see Appendix B) show management recommendations for those trees which at the time of the survey were identified as requiring management intervention. These works being in response to hazards recorded during the tree survey.

The works are recommendations and tree owners and managers are advised to seek further guidance should a tree on their land require management outside of the Proposed Scheme.



5. Arboricultural Method Statement

5.1 General

The purpose of this Arboricultural Method Statement (AMS) section is to describe the tree protection measures likely to be required during the implementation of the Proposed Scheme in line with guidance from the British Standard BS5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'.

This section describes the tree protection measures that would likely be required during the construction stages. It sets out the following information:

- Requirements and information for pre-commencement briefings;
- The roles and responsibilities associated with the delivery of the protection measures, control and communication;
- Mitigation measures to be recorded and implemented;
- Review and monitoring mechanisms.

5.2 Work package plans and task briefing sheets

The requirements for tree protection measures are to be included within any Work Package Plans (WPPs) or Task Briefing Sheets (TBSs), or similar documents produced by the appointed Principal Contractor as part of the planning of construction activities.

All pre-commencement briefings shall make sure all members of staff working or visiting the area of Site being worked upon are aware of the individual responsibilities regarding trees and the tree protection measures required to be in place to continue construction.

In the approval of any pre-construction documentation the reviewer shall make sure any protection of trees has been considered within the area and seek confirmation with the supervising Arboriculturist or if further clarification is required.

The pre-commencement Site briefings shall be attended by the construction manager or suitable delegate. They shall raise awareness with the relevant parties of the trees within the working extents and confirm the requirements for tree related information to be included within induction material and daily briefings to members of staff working or visiting the Proposed Scheme.

The briefings shall also confirm the following:

- The location of tree protective barriers
- Tree works to facilitate the Proposed Development
- Site specific mitigation measures
- Where/when arboricultural supervision will be required

5.3 Site supervision

The supervisory role shall be performed by a suitably qualified Arboriculturist, where required. The frequency of these visits should align with key milestones identified in Table 5-1 below and shall be



undertaken as required during the progression of the Proposed Scheme to enable an auditable succession of monitoring events for a review of the protection measures implemented for the trees.

Table 5-1 – Programme of Site supervision

Programme	Arboriculturist or delegate	Supervision
Pre-commencement Site meeting	Arboriculturist	a) Confirm location and specification of tree protective barriers b) Confirm tree works to be undertaken c) Confirm requirements for tree protection information to be included in induction details for the Site d) Confirm requirements for reporting any tree related incidents e) Confirm ongoing arboricultural monitoring and contact details.
Setting out of protective barriers	Arboriculturist	a) Review location and specification of tree protective barriers b) Confirm any additional tree protection measure requirements c) Submit Site monitoring pro forma
During operation as minimum every 8 weeks.	Arboriculturist	a) Review location and specification of tree protective barriers b) Assess condition of retained trees, specifically for any construction related damage c) Confirm any additional tree protection measure requirements d) Submit Site monitoring pro forma
Post-construction	Arboriculturist	a) Inspect all retained trees to make sure they have not been damaged during the construction operations b) To instruct any remedial works that may be required should a tree defect be identified as a result of the construction operations.

On completion of each site visit a report or site note should be completed by the arboricultural specialist.

Where emergency matters arise regarding trees, e.g. unexpected access required within construction exclusion zones or damage to retained trees, then an Arboriculturist is to co-ordinate a visit to the Site in person or delegate their powers to a suitably qualified person.

Any variations or incidents related to trees shall be reported in writing to the Project Manager. Details of the variation(s) or incident(s) shall incorporate photographic evidence and Site note(s) as appropriate. Suitable remedial measures, including potentially the provision of new planting where deemed appropriate.



5.4 Tree Protection Plan (TPP)

The Tree Protection Plan (TPP) (Appendix D) include the locations of protection fencing likely to be required during the construction stage. These locations need to be verified on Site prior to construction and in agreement with the contractor. The TPP also includes notes on mitigation measures required to permit the construction of the Proposed Scheme, whilst retaining trees.

The protected areas once installed shall not be moved or altered without approval by the Arboriculturist and, where necessary following consultation with the LPA.

5.5 Construction Exclusion Zone (CEZ)

The CEZs can be defined as all the soft surfaces within the RPAs of retained trees outside of the works areas and the areas behind the tree protection fencing or Site hoarding.

Site operations not permitted in the CEZs without consultation with an Arboriculturist include storage of plant, equipment or materials, vehicular or plant access, washing down of vehicles or machinery, handling, discharge or spillage of any substances, including cement washings, and actions likely to cause localised waterlogging. No mechanical digging, scraping or excavation shall be permitted in the CEZs, nor earthworks or changes in the finished ground levels other than those agreed by an Arboriculturist.

5.6 Hand excavations within RPAs

Hand excavation within the RPAs of trees has been specified for certain trees and these are shown on the TPP.

Where hand excavations are specified, then this would broadly adhere to the following:

- a. The area to receive excavations is to be clearly marked out on Site and agreed with the Arboriculturist.
- b. Hand tools are to be used, with all spoil to be positioned outside of the RPA of the tree.
- c. Small plant maybe permitted in consultation with the Arboriculturist, or the use of a vacuum excavator positioned outside of the RPA of the trees to be retained.
- d. The use of an air-spade rig to loosen the sub-base material can be instructed by supervising Arboriculturist if required to loosen clay based material or similar.
- e. Once excavated if tree roots are located these are to be moved if sufficiently pliable or pruned only as a last resort on the advice of the Arboriculturist.
- f. Tree roots to be retained where feasible through packing around with sharp sand.

5.7 Root pruning

Where tree roots have to, as a last resort, be severed, the pruning points would need to be agreed with the supervision Arboriculturist and pruning undertaken using a sharp pair of secateurs or a hand saw, or if pliable moved out of the construction profile and re-covered within topsoil.



5.8 In situ concrete

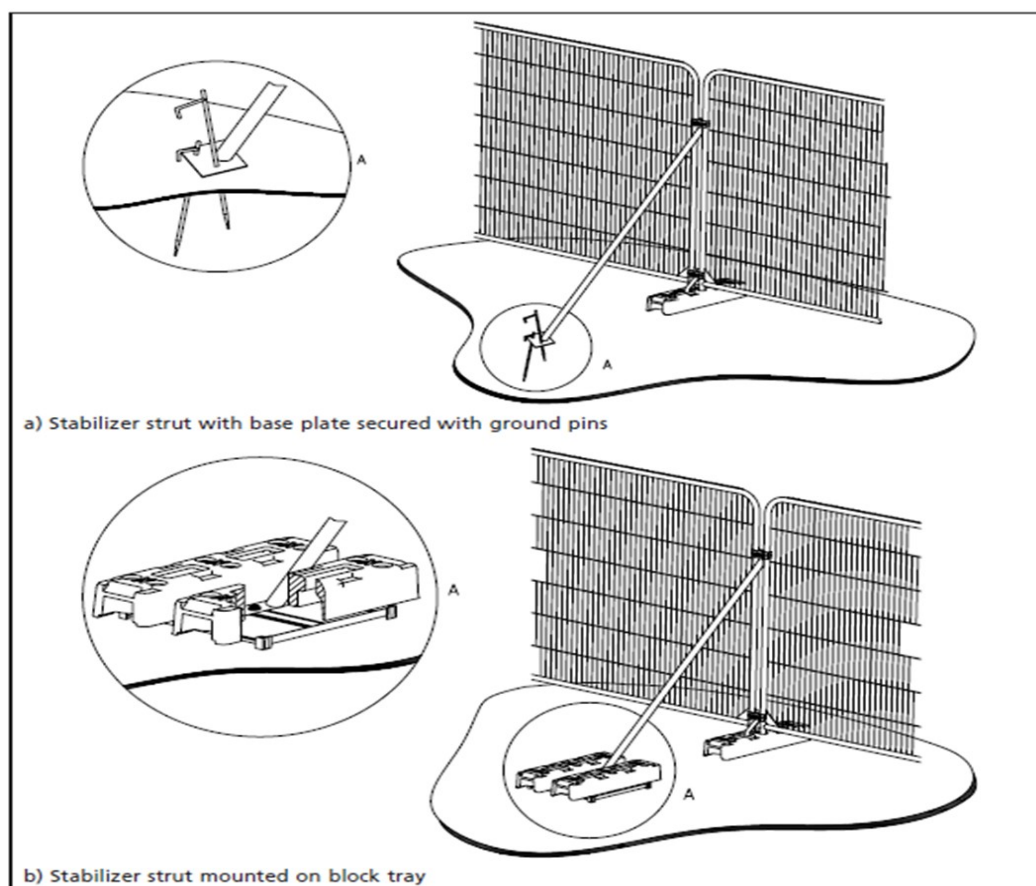
It should be noted that due to the highly alkaline and toxic leachate produced during the curing of wet concrete, concrete should not be poured within trees' RPAs unless an impermeable liner has been installed to contain the concrete (for example, where new fence posts or kerbs are to be installed).

5.9 Tree protective fencing

The locations of any protective fencing shall be reviewed prior to construction. The fencing should be erected before the commencement of works and kept in place throughout the duration of the works.

The protective barriers could comprise 2m tall welded mesh panels on rubber or concrete feet. The panels are to be joined together using a minimum of two anti-tamper couplers, installed so they can only be removed from inside the fence. The distance between the fence couplers is to be at least 1m and is to be uniform throughout the fence; the panels are to be supported by inner side stabiliser struts attached to a base plate secured on a block tray. See Figure 5 below.

Figure 5-1 - Tree protection fencing



The protected areas shall be seen as sacrosanct and once installed shall not be moved or altered without recommendation by an Arboriculturist.

5.10 Ground protection matting

The locations for ground protection matting have not been illustrated on the TPP, as it is not currently known where these would be required. Their locations would need to be agreed prior to the commencement of construction in coordination with a contractor.

Where ground protection matting is specified to protect tree roots and to minimise ground compaction within RPAs, then an example of a proprietary matting product is Ground-Guards (<http://www.ground-guards.co.uk/solutions/tree-root-protection/>). A double layer of Ground-Guards panels with a 150mm layer of wood chips sandwiched in-between will create a suitably cushioned base to facilitate access within RPAs where absolutely necessary.

5.11 Compound areas

The locations of Site accommodation, temporary buildings and areas used for storage of materials are to be located outside of the CEZ' of retained trees as defined within the TPP.

5.12 Tree works

All tree works are to be undertaken in line with current recommendations in accordance with BS3998:2010 Tree Work – Recommendations and comply with the current Arboriculture and Forestry Advisory Group (AFAG) or applicable Forestry Industry Safety Accord (FISA) advice published by the Health and Safety Executive (HSE) or FISA.

Tree works are to be planned to ensure protection of people, property and wildlife.

The trees to be removed or worked upon for facilitation, such as pruning, shall be clearly marked prior to any tree works commencing on Site. These works are to be agreed with the supervising Arboriculturist where required. The method of removal shall be informed by the Site and ecological constraints.

The tree works contractor shall provide access routes and loading bay locations for approval by the main contractor. These shall take into account the retention of trees and following existing access tracks or hard surfaces to try and reduce tree removals. The tree works contractor will have to submit a risk assessment and method statement for review by the Appointed Principal Contractor or Arboriculturist prior to commencing works on Site.

5.13 Tree works schedule

All current trees and areas of trees for removal are illustrated on the TPP and detailed in the survey schedule.

The method of removal shall be informed by the Site constraints.

The requirements for facilitation pruning operations are to be confirmed prior to construction and covered within the pre-commencement Site meetings.



APPENDICES

Appendix A. Key & British Standard 5837:2012 Survey Table

A.1 Survey key

Tree No: Sequential reference number given to the tree or group of trees as shown on the tree survey drawings.

Species: This is the common name given to the tree.

Height (Ht.): tree height from the base of the tree to its full stem height, measured in metres (m). Measurements are taken to the nearest half metre.

Stem diameter (mm): measured in accordance with Figure A2 below. Measurements are rounded to the nearest 10mm in some cases.

Branch spread (m): measurement of crown spread to the four cardinal points; if the crown is balanced a single measurement is given. Crown spread plotted on the tree survey drawings. Measurements are taken to the nearest half metre.

1st significant branch and direction of growth (m): measurement of the height of the first significant branch above ground level, given in metres and direction of growth e. g. 2. 4-N

Canopy height (m): height of the canopy above ground level. Measurements are taken to the nearest half metre.

Life stage: The following abbreviations are used:

Y = Young trees <1/5 life expectancy.

SM = Semi-Mature trees 1/5 – 2/5 life expectancy.

EM = Early Mature trees 2/5 – 3/5 life expectancy.

M = Mature trees 3/5 – 4/5 life expectancy

OM= Over-Mature trees >4/5 life expectancy

VET = veteran tree

Vitality: Good, fair, poor or dead

Good – a tree with little or no obvious physiological defects; leaf density and colour are typical for the species, bud, flower and fruit production are good and there are no signs of dieback at any point throughout the crown.



Fair – a tree with moderate physiological defects; leaf density is less than typical for the species, leaf cover is chlorotic, bud, flower or fruit production are deficient, there are signs of minor dieback within the crown, there is a moderate degree of deadwood within the crown.

Poor – a tree with major or multiple physiological defects; evidence of extensive crown thinning, bud, flower or fruit production is poor or missing, there are signs of advanced dieback throughout the crown, there is extensive or major deadwood throughout the crown.

Dead – a tree that has died due to either old age, drought, disease, pest infestation, physical damage to the main stem or rooting system, or a combination of these factors.

General observations, particularly of structural and/or physiological condition: e. g. observations of any decay and physical defect.

Preliminary management recommendations: any identified preliminary management to rectify defects recorded in general observations. These may include the need for further detailed inspection or works to address immediate hazard to life or property.

Estimated remaining contribution, in years:

<10

10+

20+

40+

Category grading: As per BS 5837:2012 chart in accordance with Figure A3 below.

A – Illustrated as light green (RGB code 000-255-000)

B – Illustrated as mid blue (RGB code 000-000-255)

C – Illustrated as grey (RGB code 091-091-091)

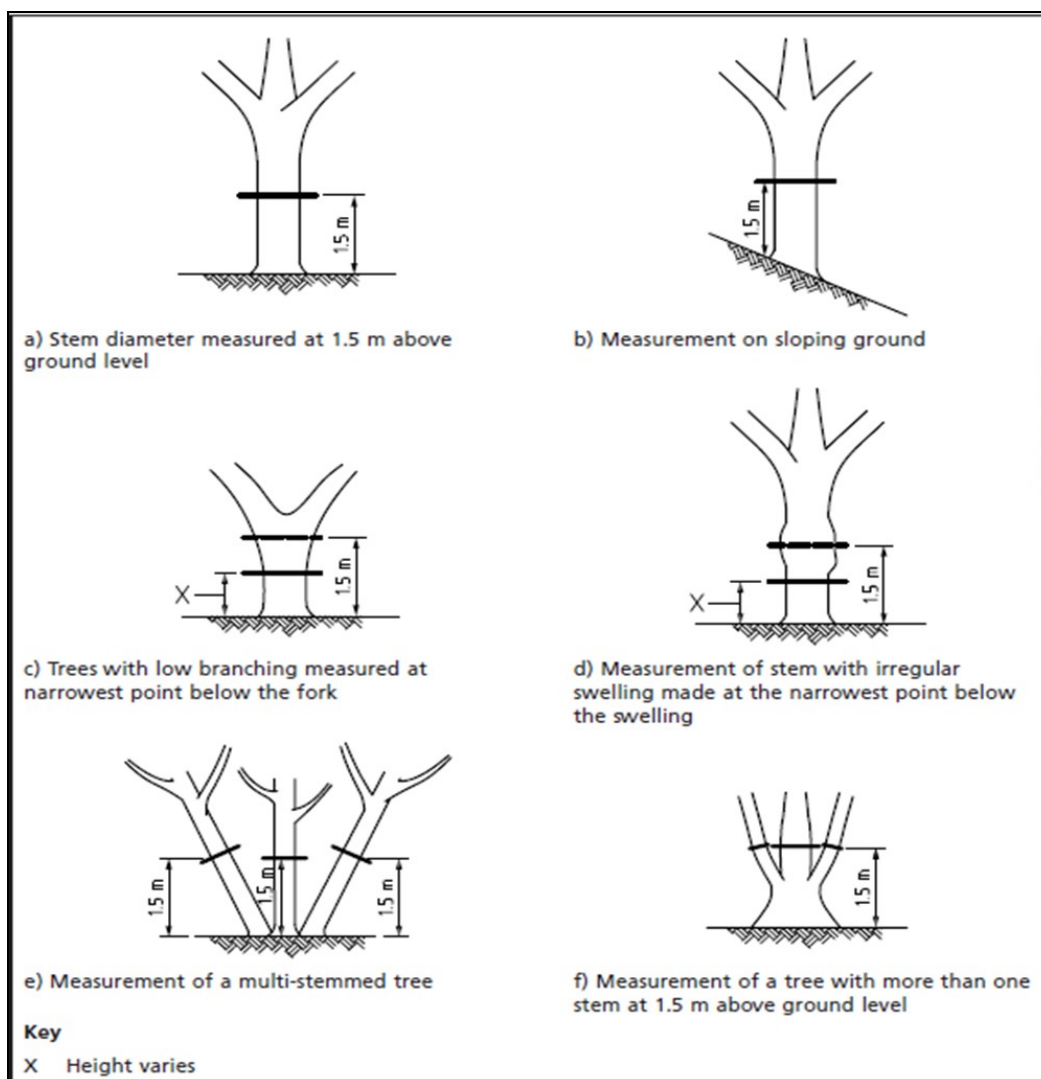
U – Illustrated as dark red (RGB code 127-000-000)

Root Protection Area (m): plotted around each tree on relevant drawings, illustrating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability. The protection of the roots and soil structure is treated as of paramount importance.

A.2 Measuring table

Measurement of tree stems dependant on tree form.





A.3 BS 5837:2012 cascade chart

Cascade chart for tree quality assessment from BS 5837:2012

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 NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.		See Table 2
Trees to be considered for retention				
Category A		1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
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 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		See Table 2
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			
Category C		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		See Table 2
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			

Appendix B. Tree survey schedule



Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life Stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)
T001	Common Pear	6.5	280+200	3.0	1	3	2	Gl	3	EM	Fair	Off-site tree, located behind 1.8m masonry wall, likely containing roots off site. No access to inspect all measurements estimated. Minor wounds on stems.	No works presently required	10+	C1	4.1
T002	Red Oak	7	390	2.0	1	2	2	2.5 all	4	EM	Fair	Off-site tree located behind timber fence. Crown has been recently significantly reduced. Stem 1.2m from fenceline.	No works presently required	20+	C1	4.7
G003 a	Group of 11no Sycamore	10 to 21	380+380+300+180	6.0	6	8	6	Na	1	EM-M	Fair to Good	Group of suspected self-set Sycamore located between green metal fence, school side and metal barbed wire topped fence railway side. There is a concrete wall/ plinth between the trees and the internal fence. Trees are at higher level than school grounds – approx. 30cm to west, and 90cm to east. No access to inspect all measurements estimated. Most trees have moderate to dense ivy encroachment. Evidence of historic crown lifting wounds on stems suspected to allow installation of internal fence. Individually the trees are of low arboricultural value, but collectively provide screening between school and railway line.	No works presently required	20+	B2	7.7
G003 b	Sycamore	21	380	6.0	6	7	6	Na	1	EM	Good	As of group, please see above.	No works presently required	20+	B2	4.6
G003 c	Sycamore	10	300	3.5	2	1	2	Na	1	EM	Good	Not on topo, location approximate. Otherwise, as of group.	No works presently required	20+	B2	3.6
G003 d	Sycamore	21	370	5.0	5	5	5	Na	3.5	EM	Good	As of group, please see above.	No works presently required	20+	B2	4.4
G003 e	Sycamore	21	450	4.0	4	4	4	Na	1.5	EM	Good	As of group, please see above.	No works presently required	20+	B2	5.4
G003 f	Sycamore	15	350	4.0	4	1	4	Na	1.5	EM	Good	Tree is located trackside behind all fences visible. Otherwise as of group.	No works presently required	20+	B2	4.2
G003 g	Sycamore	21	350	4.0	4	1	4	Na	3	EM	Good	Stem touching internal fence. Otherwise as of group.	No works presently required	20+	B2	4.2
G003 h	Sycamore	20	380	5.5	5.5	5.5	5.5	Na	2	EM	Good	As of group, please see above.	No works presently required	20+	B2	4.6
G003 i	Sycamore	20	2x240	5.5	5.5	5.5	5.5	Na	2	EM	Good	Mutually competing crowns. Otherwise as of group.	No works presently required	20+	B2	4.1

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life Stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)
G003 j	Sycamore	20	240	4.0	0	4	4	Na	3	EM	Good	Not on topo, approx. location plotted. Otherwise, as of group.	No works presently required	20+	B2	2.9
G003 k	Sycamore	20	480	4.5	4.5	4.5	4.5	Na	3	EM	Good	As of group.	No works presently required	20+	B2	5.8
T004	Sycamore	6	110	1.5	1.5	1.5	1.5	GL	1	SM	Fair	Located off site between metal fences. Crown growing through fence. Likely will need to be removed to prevent damage to structure.	No works presently required	10+	C1	1.3
G005	Group of Maple and Goat Willow	5.5	280	2.5	2.5	2.5	2.5	Na	2	SM	Fair	Group of offsite, Maple and Goat Willow located behind 3m stone wall. No access to inspect all measurements estimated. Crowns of Goat Willow sprawl over wall to east.	No works presently required	20+	C2	3.4
G006	Mixed Tree Group	4.5	2x80	0.8	0.8	0.8	0.8	Na	0	SM	Good	Group of 3no previously coppiced Sycamore and 1no Bay located behind metal fence. All located off site. Stems, 1m from fence line.	No works presently required	20+	C2	1.4
T007	Sycamore	8.5	260+200	4.0	4	4	4	2.5 all	3	SM-EM	Good	Located behind metal fence, railway trackside. No access to inspect all measurements estimated. Dense ivy encroaching stem. Stem base touching fence.	No works presently required	20+	C1	3.9
T008	Sycamore	10	280+240+200	4.0	5.5	4	2.5	0.5 all	3	EM	Good	Located behind metal fence, railway trackside. No access to inspect all measurements estimated. Tree has historically partially failed, but appears to have stabilised. Stem 1m from fenceline.	No works presently required	20+	C1	5.0
G009	Mixed Tree Group	3 to 4	100	1.5	1.5	1.5	1.5	Na	0	SM	Fair to good	Off-site trees, located trackside, behind stone wall. Species include Sycamore. Crowns growing into metal fence at boundary.	No works presently required	20+	C2	1.2
G010	Mixed Tree Group	4	100	1.5	1.5	1.5	1.5	Na	0	SM	Fair to good	Located between car park and stone wall. Species include Beech.	No works presently required	20+	C2	1.2
T011	Fig	5.5	3x160	3.5	4	3	3.5	Na	1.5	EM	Good	Off-site tree located behind 1.6m stone wall and metal fence. No access to inspect all measurements estimated. Crown touching metal fence at 3m. Evidence of historic selective pruning.	No works presently required	20+	B1	3.3
T012	Willow	15	950	8.5	10.5	8.5	9	2 E	1.8	M	Good	Off-site tree located behind 1.5m tall masonry wall No access to inspect all measurements estimated. Crown appears to have been reduced in height and spread in past. Historic storm damage throughout crown. Hazard beam in lateral projecting west at 3m, presenting low risk to school grounds.	Remove deadwood over hanging school grounds and any weakly attached branches.	20+	B1	11.4

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life Stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)
G013	Mixed Tree Group	10.5	2x100	3.0	3	3	3	Na	1.5	SM	Fair	Group of trees located between school metal fence and timber fencing/ stone wall at rear of domestic gardens. Ownership unconfirmed. No access to inspect all measurements estimated. Some stems pushing against metal chainlink fence. Species include self-set Sycamore and Elder and planted Bay. Group is non-continuous.	No works presently required	10+	C2	1.7
T014	Bay	5	3x100	3.5	3.5	3.5	3.5	Na	0	SM-EM	Good	Off-site tree located behind chainlink fence and climbing wall, no access to inspect all measurements estimated. Crown overhangs site by 2.3m.	No works presently required	40+	C1	2.1
T015	Tamarisk	7.5	400+350	4.5	4.5	4.5	4.5	Na	2	M	Good	Fair to good. Off site tree located behind chainlink fence and climbing wall, no access to inspect all measurements estimated. Large for species. Crown overhangs site by 3.8m.	No works presently required	20+	B1	6.4
T016	Sycamore	9	180	3.0	2.5	2.5	2.5	2 all	3	SM	Good	Tree located between chainlink fence and masonry wall. Ownership unknown. Not on topo, approx. location plotted. Very constrained location.	No works presently required	10+	C1	2.2
H017	Leyland Cypress Hedge	5	2x180	3.0	3	3	3	Na	3	EM	Good	Row of approx. 7no offsite Leyland Cypress, located behind 1.2m masonry wall. All historically reduced and managed as formal hedge within garden. No recent management within school site. Stems 1m from fenceline.	No works presently required	20+	C2	3.1
G018	Mixed Tree Group	5	80	1.0	1	1	1	Na	0	SM	Fair	Linear group of self-set trees located between metal fence in school and timber fence of domestic garden. Ownership unknown. Species include Sycamore and Elder. Previously topped at approx. 3m (fence height) and branches growing through fence cut back.	No works presently required	10+	C2	1.0
G019	Mixed Shrub/ Tree Group	5.5	150	2.0	2	2	2	Na	3	SM	Fair	Group of tall shrubs located within domestic garden. Species include Eurononymous. All appear to have been previously topped. 1m from fence.	No works presently required	20+	C2	1.8
G020	Group of Sycamore	3	90	0.5	0.5	0.5	0.5	Na	0	SM	Poor	Linear group of self set Sycamore located between metal chain-link fence and timber fence. Ownership unknown. Very low value trees, recently severely reduced at height of fencing.	No works presently required	<10	U	1.1
H021	Mixed Hedge	1.8	3x50	0.8	0.75	0.75	0.75	Na	0	SM	Good	Linear hedge of Hazel, Hawthorn and Berberis. Appears to be regularly managed.	No works presently required	20+	C2	1.0
H022	Griselania Hedge	1.6	2x50	0.4	0.4	0.4	0.4	Na	0	SM	Good	Grisella hedge. Appears to be regularly managed. Hedge is broken by eastern gateway.	No works presently required	20+	C2	0.9

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life Stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)
T023	Common Walnut	12	430	6.5	6.5	6	6.5			EM	Good	Soil compaction at base. Multiple exposed roots up to 50mm dia. extending 2m from stem. Crown breaks at 2m. Crown historically lifted and pruned back from gateway to east. Pruning wounds are occluding. Open form.	No works presently required	40+	B1	5.2
T024	Whitebeam	3.5	280	1.0	1	1	1	Na	1.5	EM	Poor	Off-site tree located behind fence. Unable to see stem, all measurements estimated. Crown recently severely reduced, leaving poor form. Stem to fence is 1.3m.	No works presently required	10+	C1	3.4
G025	Group of 10no Cherry	4 to 10	120+80	4.5	3	3.5	3	Na	2	SM	Good	Linear group of 10no Cherry planted at 2-3m spacings. Crowns have been lifted and cut back from play area to north and fenceline to south, leaving large wounds. Average stem diameter taken. 3no trees to west with stunted growth.	No works presently required	20+	C2	1.7
T026	Common Lime	19	640	6.0	6	6	6	4 NW	3.5	M	Good	LA Street Tree. Disrupted paving and kerbs at base. Crown breaks at 3.5m. Historically pollarded at 5-5.5m and more recently at approx. 15m.	No works presently required	40+	B1	7.7
G027	Group of 3no Sycamore	16	450	6.0	6	6	6	1.5 all	3.5	EM	Good	Clump of 3no Sycamore. Dense vegetation prevents basal inspection. Decay and weak response noted at old crown lifting wounds on stems from 2-4.5m. <5% major and minor deadwood in crowns.	Remove major deadwood in crowns.	20+	C2	5.4
T028	Sycamore	17	490	5.5	4.5	5	4.5	2 S	3	M	Good	Fair to good. Large wound with decay at 0.5m west at location of Co-dominant stem removal. Decay can be probed to 150mm depth and appears to not be progressive. <5% major and minor deadwood in crown.	Remove major deadwood in crown.	20+	B2	5.9
T029	Sycamore	15	300	4.0	4	4	4	2 n	3	EM	Good	Fair to good. Minor crown imbalance.	No works presently required	20+	C2	3.6
G030	Group of 2no Whitebeam	5.5	130	1.2	1.2	1.2	1.2	3 all	1.8	SM	Good	2no even aged planted Whitebeam. Good form.	No works presently required	40+	C2	1.6
T031	Wild Cherry	3	70	0.7	0.7	0.7	0.7	1 all	1	Y	Fair	Planting stake and the remain in place, tight on stem. Suspected weak roothold.	No works presently required	10+	C1	0.8
T032	Field Maple	4	100	1.0	1	1	1	0	0	SM	Good	Fastigate form. Planting stake still in place.	No works presently required	40+	C1	1.2

Appendix C. Glossary of terms

Term	Description
Access Facilitation Pruning	One-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on Site.
Adaptive Growth	The process whereby wood formation is influenced both in quantity and in quality by the action of gravitational force and mechanical stresses on the cambial zone
Amenity Value	The environmental and landscape benefits of trees as opposed to their commercial value for timber
Ancient Woodland	Sites which have been wooded since at least 1600, as defined by English Nature and recognised as being of high nature conservation value, whether managed or not. They may be semi-natural or replanted.
Arboricultural Method Statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.
Arboriculture	The study and care of trees and other woody vegetation
Arboriculturist	A person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.
Cavity	An open wound, characterised by the presence of decay and resulting in a hollow
Co-dominant stems	Where a tree's main stem splits into two leaders, can also be called twin-stemmed.
Competent person	A person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached.
Construction	Site-based operations with the potential to affect existing trees.
Construction Exclusion Zone	The area based on the root protection area to which access is prohibited for the duration of a project.
Coppice	A traditional method of woodland management in which young tree stems are repeatedly cut down to near ground level. In subsequent growth years, many new shoots will emerge, and, after a number of years the coppiced tree, or stool, is ready to be harvested, and the cycle begins again
Crown clearance	This is the removal of all dead, dying and diseased branches; in addition branches that are cleared away from a specific hazard e. g. live railway line.
Crown lifting	The removal of lower branches to provide a desired amount of clearance above ground level. This can be achieved either by the complete removal of a branch or only parts of which extend below the desired height
Crown reduction	The overall reduction of both the height and spread of the crown.
Decay	Process of degradation of woody tissues by fungi and bacteria through decomposition of cellulose and lignin.

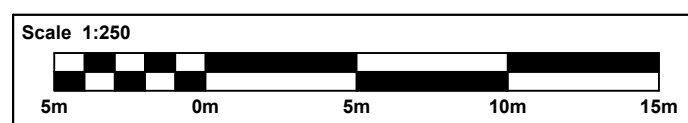
Deadwood	Deadwood is often present within the crown or on the stems of trees. In some instances it may be an indication of ill health; however, it may also indicate natural growth processes. If a target is present beneath the tree, and falling deadwood may cause injury or damage it should be removed; if no target is present the deadwood may be retained intact for conservation purposes (insects, fungi, birds etc.).
Epicormic growth	A secondary growth from dormant adventitious buds on the stem or main branches.
Failure	In connection with tree hazards, a partial or total fracture within woody tissue or loss of cohesion between roots and soil.
Hazard beam	A branch that has over-extended in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).
Hung-up limb	Dead or fallen branch from within the crown or from another tree's crown that has failed and been caught up by, and resting on, branches of a tree
Included Bark Junction	Pattern of development at branch junctions where bark is turned inward rather than pushed out. Potential weakness due to a lack of a woody union.
Ivy Growth	Ivy growth may ascend into the tree's crown, increasing wind resistance, concealing potential defects and reducing the tree's photosynthetic capacity. Ivy growth is often acceptable in woodland areas as a conservation benefit.
Monolith	A large bulk of standing dead wood. Usually the trunk of the tree or the trunk with the base of the branch frame work. These should be retained for wildlife habitat when the risk is appropriate for the location.
Pollarding	This involves the removal of whole branches to leave only the main trunk. In species such as willows and poplars such significant pruning is acceptable with new branches developing from the pollard heads. Secondary pruning of the new wood can help form a new canopy to the tree several years after the initial pollard
Reaction Wood	Specialised secondary xylem, which develops in response to a lean or similar mechanical stress, attempting to restore the stem to the vertical.
Root Protection Area (RPA)	The 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 is treated as a priority.
Service	Any above or below ground structure or apparatus required for utility provision.
Stem	The principal above-ground structural component(s) of a tree that supports its branches.
Structure	A manufactured object, such as a building, carriageway, path, wall, service run, and built or excavated earthwork.
Structural Defect	Internal or external points of weakness, which reduce the stability of the tree
Sub-dominant stem	A branch within the crown that is not the dominant leader
Suppressed	Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.

TPO	A Tree Preservation Order is an order made by a Local Planning Authority which in general makes it an offence to cut down, lop, top, uproot, wilfully damage or wilfully destroy a tree without first getting permission. Tree Preservation Orders are usually made to protect trees that make a significant contribution to the amenity of an area. They may particularly be made when it is felt that a tree may be under threat.
Tree Constraints Plan	Abbreviated to TCP. Plans showing specific tree constraints including Root Protection Areas and Crown spread.
Tree Protection Plan	Abbreviated to TPP. Scaled drawing, informed by descriptive text where necessary, based upon the finalised proposals, showing trees for retention and illustrating the tree and landscape protection measures.
Visual Tree Assessment	A non-invasive method of examining the health and structural condition of trees. Developed by Claus Mattheck and David Breloer 1994
Wound	Any injury, which induces a compartmentalisation response
Wound Wood	Wood with atypical anatomical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound as opposed to the ambiguous term "callus. "

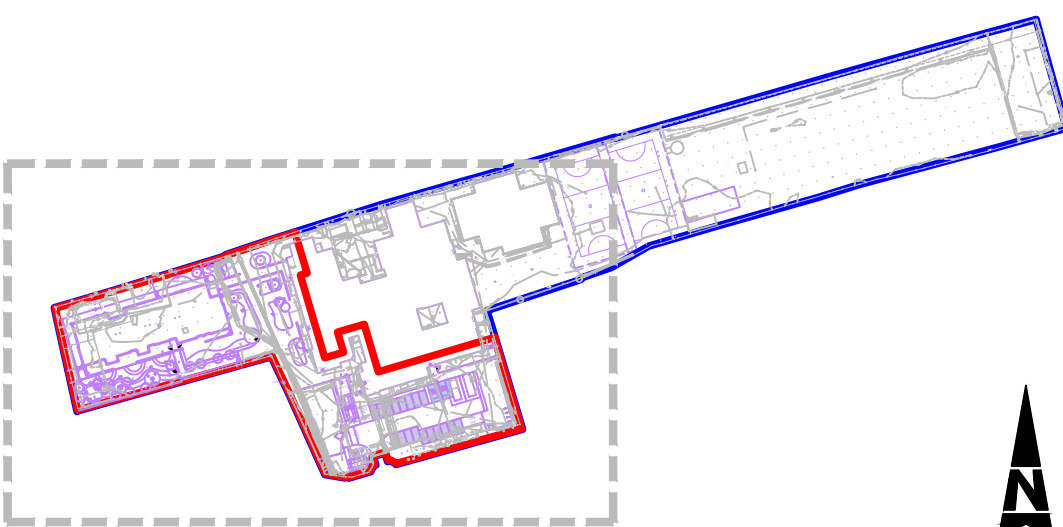
Table C-1 – Glossary Table

Appendix D. Tree protection plan





Scale 1:2500



11

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- Proposed Scheme
Red Line Boundary
- Ownership
Blue Line Boundary
- Proposed works

-  Category A tree
 Category B tree
 Category C tree
 Category U tree
 Tree group / hedge
 (colour to BS cat.)

- Root Protection Area (RPA) of retained trees
- Tree removal to facilitate works
- Cut back overhanging branches to 3.5m height clearance over proposed car park
- Protective fencing (indicative)
- Arboricultural supervision required

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

Refer to designer's risk assessment

Refer to designer's risk assessment

Refer to designer's risk assessment

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

P02	19/06/2026	Stage 3 issue	AB	JH	JL
P01	17/03/2026	First Issue	NA	TD	JL
Rev.	Date	Description	By	Chk'd	App'd

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WEST SUSSEX COUNTY COUNCIL

Status
S2

Project Title

HOMEFIELD PRIMARY SCHOOL
WORTHING

Drawing Title

TREE PROTECTION PLAN

Scale 1:250	Designed -	Drawn NA	Checked TD	Authorised JL
Original Size A1	Date -	Date 17/03/2026	Date 17/03/2026	Date 17/03/2026

Drawing Number	Revision
100124037 ATK XY XY D L 101003	D

DO NOT SCALE

CLASSIFICATION - Base Line (Low Risk)

Atkins Project Number: 100124937

AtkinsRéalis



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AtkinsRéalis - Sensitive

Homefield Primary School Scheme
Arboricultural Impact Assessment
June 2026