

Combined Arboricultural Impact
Assessment/ Method Statement
Land North of Pwn-Twyn Road, Cynonville
Port Talbot
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Introduction

This assessment was overseen by Ben Clark, Arboricultural Consultant, and Director at Tree Check Arboriculture Ltd. with over 9 years' experience in the arboriculture industry and holding the following qualifications:

- Level 4 Diploma in Arboriculture
- BSc. Geology (University of Southampton)
- LANTRA Professional Tree Inspection Certificate (PTI)
- Various NPTC qualifications in tree surgery.

Ben is a technician member of the arboricultural association and attends regular training and seminars to remain up to date with current arboricultural practices.

This assessment was undertaken by Josh Clark, Arboricultural Consultant, and Director at Tree Check Arboriculture Ltd. with over 9 years' experience in the arboriculture industry and holding the following qualifications:

- LANTRA Professional Tree Inspection Certificate (PTI)
- Various NPTC qualifications in tree surgery.

The methodology of this report is based on the recommendations provided by the British Standards Institute document BS5837: Trees in Relation to Design, Demolition and Construction – Recommendations, as well as other recommendations provided by institutions such as the Arboricultural Association.

Brief

Tree Check has been instructed by Laura Newcombe of Evans Banks Planning to carry out an Arboricultural Impact Assessment and Method Statement at Land off Cynonville. The purpose of this report is as follows:

- To quantify any tree losses required to make way for the proposed development.
- To quantify and prescribe any pruning works required to make way for the proposed development.
- To assess the impact that the proposed development may have on retained trees on site and to provide control measures to prevent or minimize damage to retained trees.
- To consider whether design changes could prevent or reduce tree losses on site, and whether such changes are reasonable and proportional to the retention value of affected trees.
- To provide recommendations for mitigating tree losses where appropriate.

Baseline

This report was based on the findings outlined in our baseline report: BS5837 Tree Survey and Categorisation Report at Land off Cynonville Tree Check 2025

The following information was available:

- 220822-rg-Pentwyn Road, Cynonville Topographical Survey
- TRAVANCORE - Sheet - A101 - Site Layout Plan

It should be noted that this assessment is based on tree locations as recorded in the base line survey relative to the proposed design layout. These tree locations were plotted using tree locations on the topo if available, and GPS, satellite and known features on site. In any case there exists potential for inaccuracies in the locations of trees relative to the development.

The site was visited on the 20-Jun-2025 during dry and bright weather conditions considered ideal for this type of survey.

Interpretation

See [appendix v](#) for a glossary of the terms commonly used in tree reports.

BS Categories

Trees have been assigned retention categories in accordance with BS5837. These are as follows:

Category A- Trees with a high retention value which are either arboriculturally important, important within the landscape, or culturally/ecologically important.

Category B- Trees with a moderate retention value i.e. they are good examples of their species, provide some notable amenity value to the area, or provide significant ecological or cultural value.

Category C- Trees with a low retention value. Including trees with defects which reduce their amenity value or expected lifespan but not to the extent that they cannot be realistically retained within the development.

Category U- Trees of which retention is considered unrealistic within the context of the development due to poor condition and low life expectancy.

See [Table I](#) in the appendices of this report for more information on the allocation of categories and subcategories.

Tree Age Ratings

Y- Young trees in their early stage of growth, have undergone minimal secondary thickening and are still primarily composed of active tissue.

EM- Early mature trees that have started to show characteristics of maturity such more developed crowns and increased stem thickness.

M- Mature fully developed trees.

OM- Over mature trees that are starting to show signs of decline.

A- Ancient trees that have reached a notably old age for their species and are therefore considered to be important.

V- Veteran trees with notable features such as wounds, cavities, cracks, etc. that provide significant habitat value. These are usually older trees.

Root Protection Areas (RPA's)

Root Protection areas have been calculated according to BS5837 and represent the estimated minimum rooting area required by the tree to carry out its functions.

Root protections areas are shown as orange circles or polygons for all trees except those with a retention category of U in the Tree Constraints Plan. In the Tree Loss/Retention and Protection Plan, RPA's are not shown for trees proposed for removal to make way for development.

Tree and Group Prefixes

Trees and groups are numbered with the following prefixes:

- **T-** individual trees.
- **G-** groups of trees with similar characteristics and rooting areas.
- **H-** Hedgerows.
- **W-** woodland groups, designated as such due to the presence of woodland features such as natural regeneration,

Arboricultural Impact Assessment/Method Statement

1. Tree Preservation Orders and Conservation Areas

- Direct enquiries with Neath Port Talbot County Council have been made , confirming that the site is free from Tree Preservation Order (TPO) and Conservation Area Constraints.

3. Areas of Caution

A number of areas on site have been highlighted as areas of caution, these are areas where there is a heightened risk of damage to the above ground structure or root system of retained trees through the proposed works. Certain methodologies in this document will state that they must be followed within areas of caution. The location of all areas of caution can be found on the [Tree Protection Plan](#) within the appendix section of this report.

4. Project Arboriculturalist

A project arboriculturalist must be appointed to oversee certain aspects of the work and to provide consultation should the design or site conditions change in a way that produces unexpected conflict between retained trees and the development.

The project arboriculturalist must sign off the following before works can begin on site:

- The correct installation of tree protective fencing and its positioning relative to retained trees.

The project arboriculturalist must be in attendance on site for the following:

- Installation of boundary fencing within the RPA of trees.

5. Schedule of Tree Works

The below schedule includes trees on site that require works throughout the course of the proposed development. For a full schedule of all trees on site, please refer to BS5837 Tree Survey and Categorisation Report at Land North of Pen-Twyn Road, Tree Check 2025.

	Ref	Tag	Species	Comments	Life Stage	Retention Category	RPA Radius (m)	Photo
Trees Lost	GI	2217-2218	Common ash (<i>Fraxinus excelsior</i>) Common alder (<i>Alnus glutinosa</i>)	Partial removal- removal of the two western trees within this group is proposed to make way for the boundary fencing and landscaping for the rear garden of plot 4.	EM	C2	1.8	/
	TI	2216	Common ash (<i>Fraxinus excelsior</i>)	Removal due to dangerous condition and retention category of U making it unsuitable for retention in the context of development.	EM	U	0	1

	Ref	Tag	Species	Comments	Life Stage	Retention Category	RPA Radius (m)	Photo
Pruning	HI	N/A	Common hawthorn (<i>Crataegus monogyna</i>) Hazel (<i>Corylus avellana</i>) Common ash (<i>Fraxinus excelsior</i>) Cherry plum (<i>Prunus cerasifera</i>)	Proposed box cutting reducing height and lateral extents by 2-3m to reduce the risk of crown damage during construction and facilitating ongoing maintenance as a hedge post development.	EM	B2	1.2	2

6. Tree Removal

The removal of 3 trees is proposed on site, as described in the [Schedule of Tree Works](#).

During tree removal and clearance operations, there is a risk of damage to retained trees, including the below ground root systems that are vulnerable to the effects of soil compaction. There is also the risk of retained trees being mistakenly removed. The following methodology must be followed to ensure that no damage or mistaken removal of retained trees occurs:

6.1. Control Measures for Tree Removal

- All trees proposed for removal are to be marked clearly with orange paint spots by the site manager prior to the commencement of clearance works. If there is any uncertainty, a qualified arboriculturalist is to be consulted.
- All tree clearance work is to be carried out before development works begin on site, so that construction exclusion zones can be effectively established around all retained trees.
- All vehicles and plant are to be kept out of the RPA of retained trees during tree clearance, if access into the RPA of retained trees is required, protective, interlocking ground mats, suitable for the expected loads, is to be installed to prevent soil compaction within RPA's.
- Steps are to be taken to avoid collisions between removed trees and retained trees during felling or dismantling operations, these may include, but are not limited to, use of winches, pull ropes, aerial rigging techniques and other assisted felling techniques and are to be prescribed by the contractor based on the specific conditions on site.
- Arisings, such as wood chip and timber are not to be piled against the base of retained trees if left on site.
- Any damage to retained trees is to be reported to the project arboriculturalist.
- Removal of any trees not listed above must be discussed with the project arboriculturalist beforehand.

7. Pruning Works

Pruning works, as outlined in the [Schedule of Tree Works](#), are proposed on site.

Poor pruning techniques can cause a large reduction in the amenity value of a tree, reduce its lifespan or lead to significant structural and physiological issues, requiring extensive remedial work. The following methodology must be followed during all pruning works:

7.1. Control Measures for Pruning Works

Trees

- All pruning must be undertaken by competent and trained personnel, in accordance with BS 3998:2010 – Tree Work – Recommendations.
- Cuts must be made to the nearest appropriate lateral growth point, using natural target pruning. Ideally, retained laterals should be at least one-third the diameter of the removed branch. Cuts that result in a retained lateral with a diameter less than one-third of the removed section are generally undesirable and should be avoided where practicable.
- Contractors must be made aware of any legal constraints affecting the trees to be pruned, such as Tree Preservation Orders (TPOs) or Conservation Area designations. No work shall proceed on such trees without prior written approval from the Local Planning Authority.
- No cuts greater than 100mm in diameter shall be made on the main stem unless specifically identified in the [Schedule of Tree Works](#).
- All cuts to the main stem must retain the branch collar, using natural target pruning techniques. The branch collar must not be damaged or removed, as it is vital in defending the tree from pathogen entry.

Hedges

- All hedge cutting shall be undertaken by competent and trained operatives using appropriate, well-maintained equipment.
- Cuts must be clean and made using suitable hand or powered tools. Mechanical flails must not be used unless specifically approved, to avoid unnecessary damage to the hedge structure.
- Cutting should maintain a neat and uniform profile, in line with the specifications set out in the [Schedule of Tree Works](#).
- Operatives must avoid cutting back into dead or old wood unless specified, ensuring sufficient live growth is retained to promote healthy regrowth.
- Works must be programmed outside the main bird nesting season (typically March to August), unless a pre-works check by a qualified ecologist confirms no active nests are present.
- All arisings are to be removed from site or processed as specified in the site management plan.
- Contractors must be aware of and comply with any relevant legal protections, such as Tree Preservation Orders (TPOs), Conservation Area status, or Hedgerow Regulations. No works shall proceed on protected features without prior approval from the Local Planning Authority.

8. Construction Exclusion Zones

The following groups can be segregated from the proposed works within construction exclusion zones for the entirety of the development, with no requirement for access into their root protection or crown areas, and no conflict between the proposed layout of site and their above or below ground structures:

- H1 (Following pruning)
- G1 (following partial removal)
- T2

All trees, including those for which full segregation throughout development is not possible, will be segregated, as far as is possible from the development area by natural or pre-existing features on site, or by the installation of physical barriers as outlined below:

8.1. Method for Establishing Construction Exclusion Zones

- By maintaining a construction exclusion zone, with tree protective barrier fencing segregating retained trees from the rest of site, physical damage, both mechanical and related to soil compaction can be avoided.
- Tree protective barrier fencing must be installed in the configuration outlined in the [Tree Protection Plan](#).
- The crowns and root protection areas (having been measured and marked out on site) of all trees must be enclosed within the tree protective fencing. If more space is needed than the current crown extents allow, the project arboriculturalist must be consulted in order to arrange appropriate pruning measures.
- The standard level of tree protective fencing, as prescribed in BS5837 and shown in [Appendix iv](#) is recommended for this site due to the expected use of heavy machinery and the scale of the proposed works on site.
- Machine operators are to be briefed on positioning their equipment to avoid contact with branches from retained trees and the root protection zones.
- Where access is required beneath the crown or canopy area of retained trees, all pruning work to facilitate access must be carried out prior to the development stage, height restriction barriers are to be installed at the edge of areas of caution where entry beneath barriers occurs, and banksmen are to be assigned to make sure no contact with branches is made during the movement or use of plant.
- No materials are to be stored within the RPA's of trees for any period of time, including in areas of caution.
- All RPA's are to be checked on site and marked out, measured based on the RPA radius shown in the tree schedule.

9. Tree Locations

Consideration of the potential impact of development on proposed trees is based on the location of trees (as plotted in the baseline survey) relative to the proposed layout provided by the clients. Due to the potential for inaccuracies and discrepancies between drawings and realities on site, the site manager or project arboriculturalist must mark out root protection areas and the extents of proposed structures on site to verify the following:

- Unless otherwise accounted for in this report, there is sufficient space on site for the crowns and RPA's of all trees on site (based on their RPA radius shown in the tree schedule) to be fenced off for the duration of works.
- Where this report specifies that RPAs or tree crowns will be encroached upon, the actual on-site distances between trees and the conflicting features must be measured and verified to ensure they match the figures stated in this report.

If discrepancies exist, the project arboriculturalist is to be informed, so that updated assessments can be made.

10. Schedule of RPA and Crown Incursions

The schedule below outlines trees that cannot be fully segregated from the development area and describes the type and significance of the incursions that occur.

Reference	Tag	Life Stage	Retention Category	RPA Radius (m)	RPA Area (M ²)*	Type of Incursion	Incursion Area (M ²)**	Proportion of RPA Affected	Impact or Risk	Methodology Applied	Photo
W2	N/A	M	B2	4.2	55	1- Boundary Dressings within the RPA 2- Soft Landscaping within the RPA (Trees/ Shrubs/ Hedging/ Turf/ Beds).	1- N/A 2- 8	1- N/A 2- 14%	1- risk of root severance during the excavation of fence post holes within RPA. Risk of chemical damage from concrete within RPA. 2- Risk of minor disturbance to the rooting environment. Risk of soil compaction or minor root damage if planting or turfing is not sensitively carried out. Risk from future competition for space, water, and nutrients by new planting is low due to the early mature to mature age and good physiological condition of retained tree/s.	11.1 Method for Works Beneath the Crowns of Trees 11.2 Method for Temporary RPA access 11.3 Method for Installing Fencing Within RPAs. 11.4 Method for Soft Landscaping within the RPA's of Trees.	3

*RPA's for groups represent the area per individual tree of the group, not the group as a whole.

** Incursion areas for groups are estimated per tree within the group.

11. Protection Measures for RPA and Crown Incursions

The following methodologies have been applied against trees in the [Schedule of RPA and Crown Incursions](#) and must be followed in the areas indicated on the [Tree Protection Plan](#).

11.1. Method for Works Beneath the Crowns of Trees

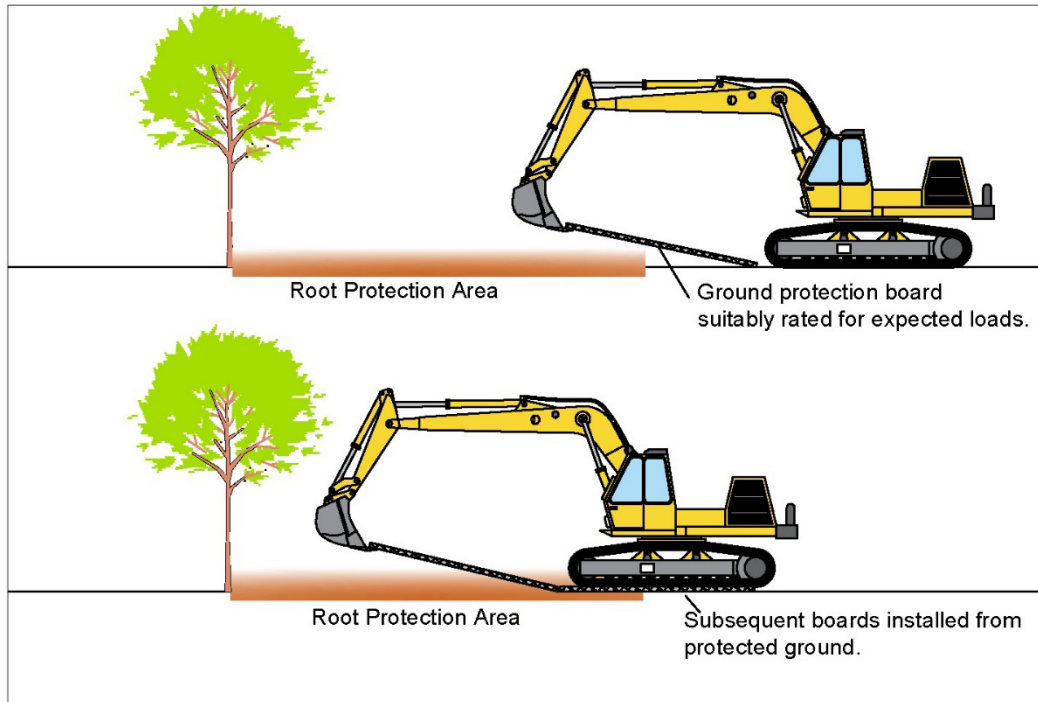
- Where construction works are to take place beneath the crowns of retained trees, all access facilitation pruning, as outlined within the [Schedule of Tree Works](#) is to be carried out before any work begins on site.
- If the gross height of any machinery on site exceeds the crown clearance, height restriction barriers must be installed to limit access beneath all trees not segregated from site by tree protective barrier fencing.
- All construction materials must be transported to their final location in their smallest possible components and assembled in place to minimise the risk of contact with the crown.
- If machinery with a maximum reach height exceeding the crown clearance is to be operated within the areas of crown incursion shown on the [Tree Protection Plan](#), these works are to be supervised by the project arboriculturalist to ensure mechanical damage to the crown structure does not occur.
- Where temporary access is required, tree protective fencing is to be reinstated around the crown area as soon as access beneath the crown is no longer needed.

11.2. Method for Temporary RPA access

- Where access is required into the RPA's of retained trees, the construction exclusion zone is to be maintained until access is required, at this point the following is to occur, in the order it is described here:
 - A section of tree protective fencing sufficient to allow access to the construction exclusion zone is to be removed, fencing panels and other components are to be stored away from the RPA's of retained trees.
 - As only pedestrian access is required, a scaffold board walkway placed on a 100mm thick layer of compression resistant material such as woodchip spread over a geotextile membrane, or onto a driven scaffold frame to create a suspended walkway, is to be installed.
 - Ground protection must be installed under the supervision of a qualified arboriculturalist following their approval of the proposed configuration.
 - Ground protection is to be rolled out from the edge of the RPA into the area of caution in a way that ensures workers and machinery are always able to work from protected ground during installation (see [Diagram a](#)).
 - Once ground protection has been installed, tree protective fencing is to be reinstated around the edge of the area of caution, preventing access to all unprotected ground.
 - Upon completion of works within areas of caution, the fencing surrounding the ground protection is to be removed, all fencing components are to be stored outside of the RPA of retained trees.
 - Ground protection is then to be removed, this must be rolled back towards the edge of the RPA's of retained trees, so that personnel and/or machinery can always work from protected ground, or from the outside of the RPA.
 - Once ground protection is removed, the tree protective fencing is to be reinstated in its original configuration.

11.2.1. Diagram a- Rolling Out Ground Protection

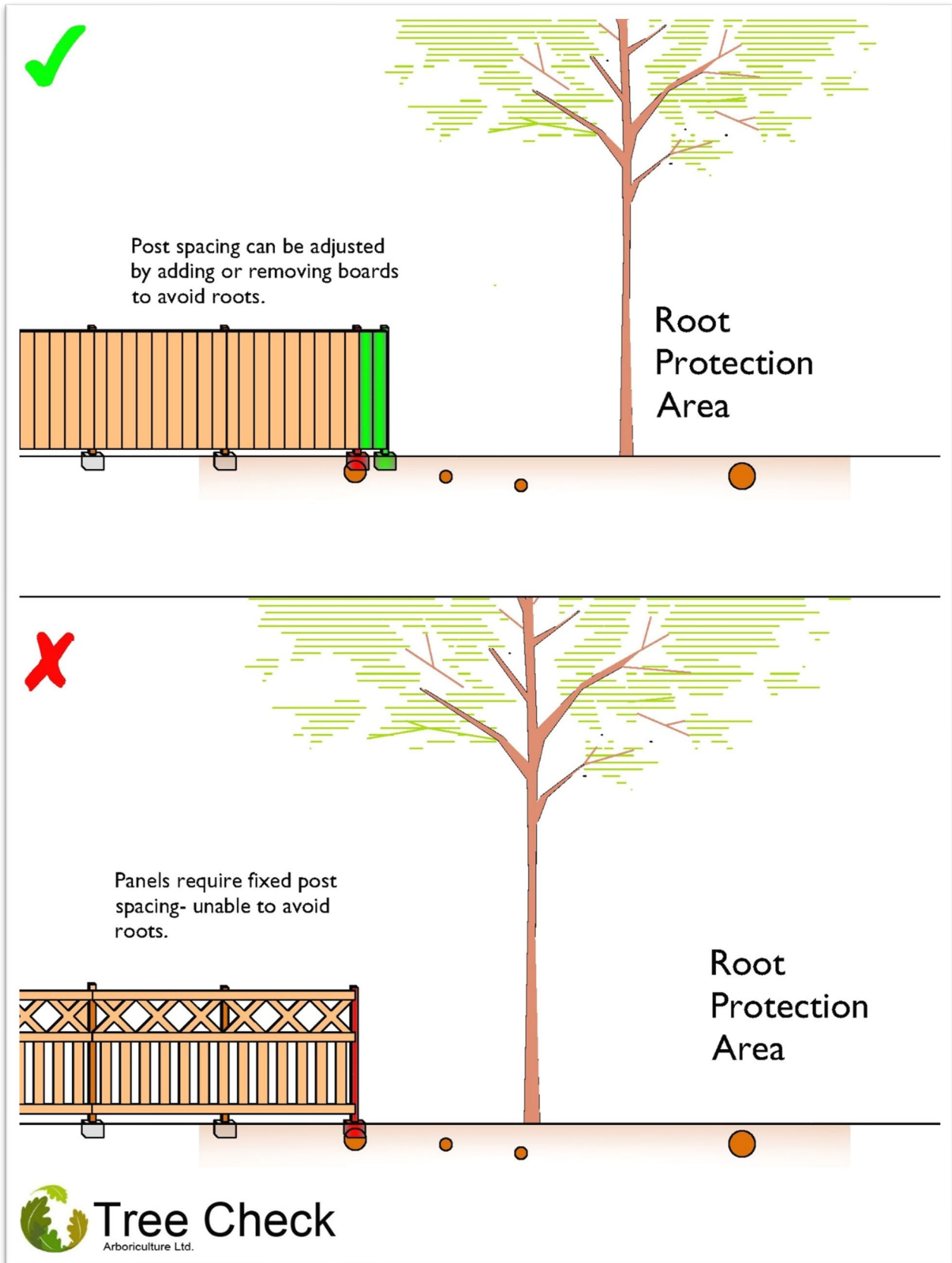
The diagram below (Tree Check 2025) shows the process of rolling out ground protection so that works on unprotected ground within the RPA do not occur. The process of installing ground protection by hand remains the same and ground protection must always be installed by hand beneath tree canopies. Rolling background protection follows the same process in reverse.



11.3. Method for Installing Fencing Within RPAs.

- All proposed pruning work is to be carried out prior to carrying out the below works.
- These works take place within the RPA's and beneath the crowns of retained trees, though since the works can be carried out on foot, or with machinery of 1.5t or less, the restrictions for working within the RPA or crown areas of trees do not apply here.
- All fencing work must be carried out once all other works are complete and all plant/heavy machinery has left site.
- The fencing must incorporate a flexible design with allowance for the distance between posts to vary. Rigid designs involving pre constructed fence panels are not suitable as they require a uniform distance between fence posts.
- The project arboriculturalist is to supervise all excavations within RPA's and test each site by driving a steel rod into the ground prior to excavation in order to detect or rule out the presence of large roots.
- Spots containing no large roots are to be selected prior to any post holes being excavated on the entire fence line. With excavations only occurring once the project manager and project arboriculturalist agreeing on all post sites within the area of caution.
- Posts holes may be excavated by hand using twin handled post hole spades (conventional spades are unsuitable as the lead to larger excavations than necessary), driven into the ground by hand or with a 1.5t excavator, or excavated with an auger on a 1.5t excavator.
- All post holes are to be lined with an impermeable membrane prior to prevent leaching of concrete chemicals into the surrounding soil.

11.3.1. Diagram B- Appropriate Boundary Fencing for use Within the RPA's of Trees.



11.4. Method for Soft Landscaping within the RPA's of Trees.

11.4.1. Ground Preparation

- All soft landscaping within RPAs must be carried out only after all construction activity and machinery use has ceased on site.
- No rotavation, mechanical tilling, or soil stripping is permitted within RPAs.
- If soil decompaction is necessary due to pre-existing compaction, this must be done by hand, using garden forks to a depth not exceeding 150mm, avoiding disturbance to any roots encountered.
- Where cultivation is required, it must be shallow surface raking only to avoid disturbing underlying root structures.
- Importation of topsoil or compost is only permitted where essential and must be BS3882-compliant and applied as a light surface dressing (max 100mm). Existing soil must remain undisturbed unless otherwise approved.

11.4.2. Grass and Turf Introduction

- Turfing and seeding must be carried out without excavation. The soil surface may be lightly raked to ensure seed contact, but must not be disturbed beyond this.
- No imported subsoil or topsoil is to be spread or graded within RPAs to build levels for turf laying.
- Where turf is laid, it must be hand-placed with no mechanical dragging or rolling. Turf must be kept clear of the base of tree stems to prevent collar rot.
- Pedestrian access only is permitted during turf laying. Any access requiring machinery must be carried out using temporary ground protection and with arboricultural oversight.

11.4.3. Tree/Hedgerow Planting

- All planting pits within RPAs must be dug by hand only. If roots $\geq 25\text{mm}$ diameter are encountered during digging, the pit must be relocated rather than severing the root.
- Pits must be kept as shallow and narrow as possible, no deeper than required to accommodate the tree's root ball.
- Tree stakes and shelters must be installed manually, ensuring they do not contact or damage existing tree roots.
- No tree planting shall occur within 1.5m of existing tree stems unless specifically authorised by the project arboriculturalist.

11.4.4. Formal Beds

- Beds for ornamental planting (shrubs, hedges, etc.) within RPAs must be shallowly cultivated by hand. No mechanical trenching or double-digging is permitted.
- Imported soils and compost must comply with BS3882 and be applied as a surface mulch no deeper than 100mm, avoiding root collar burial.
- Planting holes for shrubs must be hand-excavated and adjusted to avoid significant roots.
- Competitive or invasive species (e.g. bamboo, vigorous suckering shrubs) are not permitted within RPAs.
- Beds must be mulched by hand using well-composted bark or woodchip mulch to a depth of up to 75mm, ensuring mulch is kept clear of tree stems.

12. Impact Through Chemical Damage

There is a risk of chemical damage to trees from the mixing and storage of cement and other damaging chemicals.

The following trees are at significant risk of chemical damage during development works and the methodology outlined below must be followed in order to prevent such incidents from occurring:

- W2
- H1
- G2

12.1. Method for the Control of Chemicals Potentially Harmful to Trees

- Materials that may have an adverse effect on the health of trees will not be stored or transported within the RPA. E.g., oil, bitumen, cement, and concrete.
- Concrete and cement will not be mixed within 10m of the base of trees.
- Cement and concrete will be mixed downhill from the base of trees or watercourses to avoid the risk of contamination to runoff.
- Where it is not possible to mix and store concrete downhill from trees and watercourses, sediment barriers will be used to prevent runoff from storage and mixing areas.

13. Impact of Retained Trees on the Proposed Structure

13.1. Shading Issues

Tree cover to the south of the property is limited to a hedge which is to be maintained at 3-5m above ground level to provide screening between the properties and the road. Shading of living spaces is therefore considered highly unlikely to lead to increased pressure for removal.

13.2. Nuisance Caused by Detritus from Trees

No retained trees are within 5m of proposed driveways or structures- nuisance from the buildup of detritus is therefore likely to be negligible.

13.3. Perceived Threat of Damage to Property or Injury Through Tree Failure

The threat of tree failure causing injury or damage to property can cause anxiety for residents and increase pressure for removal of trees in close proximity to living spaces or other high use areas.

There are no trees within falling distance of the proposed built structures, however, trees within W2 will be within falling distance of the proposed rear gardens of plots 3 and 4, potentially leading to increased pressure for removal.

13.3.1. Control Measures for Reducing Perceived Risk of Tree Failure

- Detailed tree inspections to be carried out on all trees within striking distance of living areas to be carried out every 18-24 months.
- Findings and recommendations of all tree inspections to be communicated clearly to residents and site users.
- All recommendations provided in tree safety inspections are to be carried out, with an emphasis on proactive tree management.

13.4. Displacement of Lightweight Structures through Secondary Root Thickening

There is a risk of long-term displacement of the private entry road surfacing through secondary root thickening of trees in H1.

13.4.1. Control Measures for Structural Displacement**13.4.2. Root Barriers**

- A vertical root barrier must be installed along the edge of the proposed hard surfacing in the area indicated on the attached [Tree Protection Plan](#) where the projected direction of root growth could lead to future displacement.
- The barrier must be:
 - **Minimum depth:** 600mm, or deeper where site conditions allow.
 - **Material:** High-density polyethylene (HDPE) or other proprietary root-resistant membrane rated for long-term in-ground use.
 - Continuous, with overlapping sealed joints and no gaps that would allow root bypass.
 - Installed on a true vertical plane, backfilled and compacted to manufacturer specifications.
- The surface levels, edging details, and foundations of adjacent surfacing must accommodate minor changes in soil moisture regime due to altered root dynamics.
- A record of the barrier's location, depth, and specification must be retained as part of the site's arboricultural documentation for future maintenance reference.

13.5. Indirect Damage Through Shrinkable Clay Soils

Larger trees can cause indirect damage to structures by removing water from clay rich soils, causing them to contract, which potentially leads to subsidence.

- No soil analysis has been carried out but, geotechnical advice including soil testing should be taken when construction is taking place near large trees. For advice on avoiding subsidence related damage refer to NHBC Chapter 4.2.
- If soil testing reveals a high level of plasticity, consult a suitably qualified arboriculturalist to work alongside project engineers to determine necessary foundation depths in accordance with NHBC Chapter 4.2.
- The removal of mature trees prior to development in an attempt to prevent subsidence issues is not generally advisable as it may lead to heave, causing damage to built structures.

13.6. Potential Damage Through Branch Contact

The crowns of trees in the south of W2 are likely to come into contact with the proposed boundary fencing to the rear of plots 3 and 4.

- A site management plan is to be devised, to include inspection of the boundary fences at 2 year intervals in order to maintain 2m crown clearance from boundary fences through regular light pruning.

14. Drainage and SUDS

No drainage plans have been provided but the topography of the site and positioning of trees does not suggest any likely conflicts between drainage arrangements and trees, if any drainage features are proposed near any arranged trees the project arboriculturalist must be consulted, including situations where water may be diverted towards or away from trees.

15. Scope for Preventing Tree Losses through Design Change

Changes to the development to prevent the loss of two trees in G1 would be disproportionate compared to the low retention value of these trees, or would lead to higher impact of higher value trees elsewhere on site.

16. Mitigation of Tree Losses**16.1. Mitigation Through Replacement Planting**

In line with Planning Policy Wales Edition 12 (2024), the trees lost to development must be replaced by equal quality trees of equivalent environmental and ecological importance of those lost at a ratio of 3:1, therefore, the following mitigation planting is proposed to offset approximately two trees lost to development:

16.1.1. Method for Tree Planting

- A total of 180-450 trees to be planted in the areas indicated on the [Tree Protection Plan](#) in the appendix of this report.
- The following native species are recommended based on location and soil type:
 - Rowan (*Sorbus aucuparia*)
 - Crab Apple (*Malus sylvestris*)
 - Field Maple (*Acer campestre*)
 - Hazel (*Corylus avellana*)
 - Elder (*Sambucus nigra*)
 - Bird Cherry (*Prunus padus*)
 - Common Holly (*Ilex aquifolium*)
- Planting pits are to be excavated on the same day as planting, pre-preparing pits days before planting is not appropriate as this will lead to drying out of planting pits.
- Planting pits are to be excavated as a square, large enough to accommodate the entire root ball without distorting or compressing roots, but small enough so that the tree fits snugly, to encourage the roots to become established outside of the planting pit without encircling the outside of the pit.
- The edge of the planting pit is to be scarified, removing the smooth surface created by the spade during excavation, in order to encourage root establishment outside of the planting pit.
- Trees are to be placed in the pre-prepared planting pits, ensuring it is at the correct depth ensuring all roots are below ground level, but the root flares at the base of the tree are above ground.
- Planting pits are to be backfilled with soil, ensuring there are no air pockets. Water the tree to field capacity after planting.
- Stakes or guy wires are to be employed to stabilize the tree until it re-establishes, ensuring supports are not too tight and allow for some movement to allow development of stem taper.
- Mulch is to be applied to a depth of 50mm over an area 12 times the stem diameter of the transplanted tree, avoiding the accumulation of mulch on the base.
- Ground around the trees to be irrigated to field capacity weekly in the first year after translocation and throughout the summer months during periods of dry weather for 3 years after planting.
- Annual inspection schedule to be implemented to monitor the trees for signs of stress, disease, or pest infestation, enabling adjustments to the support and watering regimes as necessary as well as prescribing any necessary pruning or pest control measures.
- Continue regular inspections and maintenance. Remove supports once the tree is stable and well-established.

Appendix

Appendix i: Photographs taken on site.

Appendix ii: Tree protection/loss/retention plan showing the location of trees, their root protection areas and their retention category in relation to the proposed development.

Appendix iii: A cascade chart from BS5837: 2012- Trees in relation to design, demolition, and construction– Recommendations explaining the categorisation of trees.

Appendix iv: A diagram showing the recommended configuration for tree protective fencing, from BS5837: 2012- Trees in relation to design, demolition, and construction– Recommendations.

Appendix v: A Glossary of terms and phrases commonly used in tree reports.

Appendix vi: Information to Inform Selection of Trenchless Solutions for the Installation of Services

Appendix i: Photos

Photo I: [T1](#) Standing dead tree with crown partially intact.

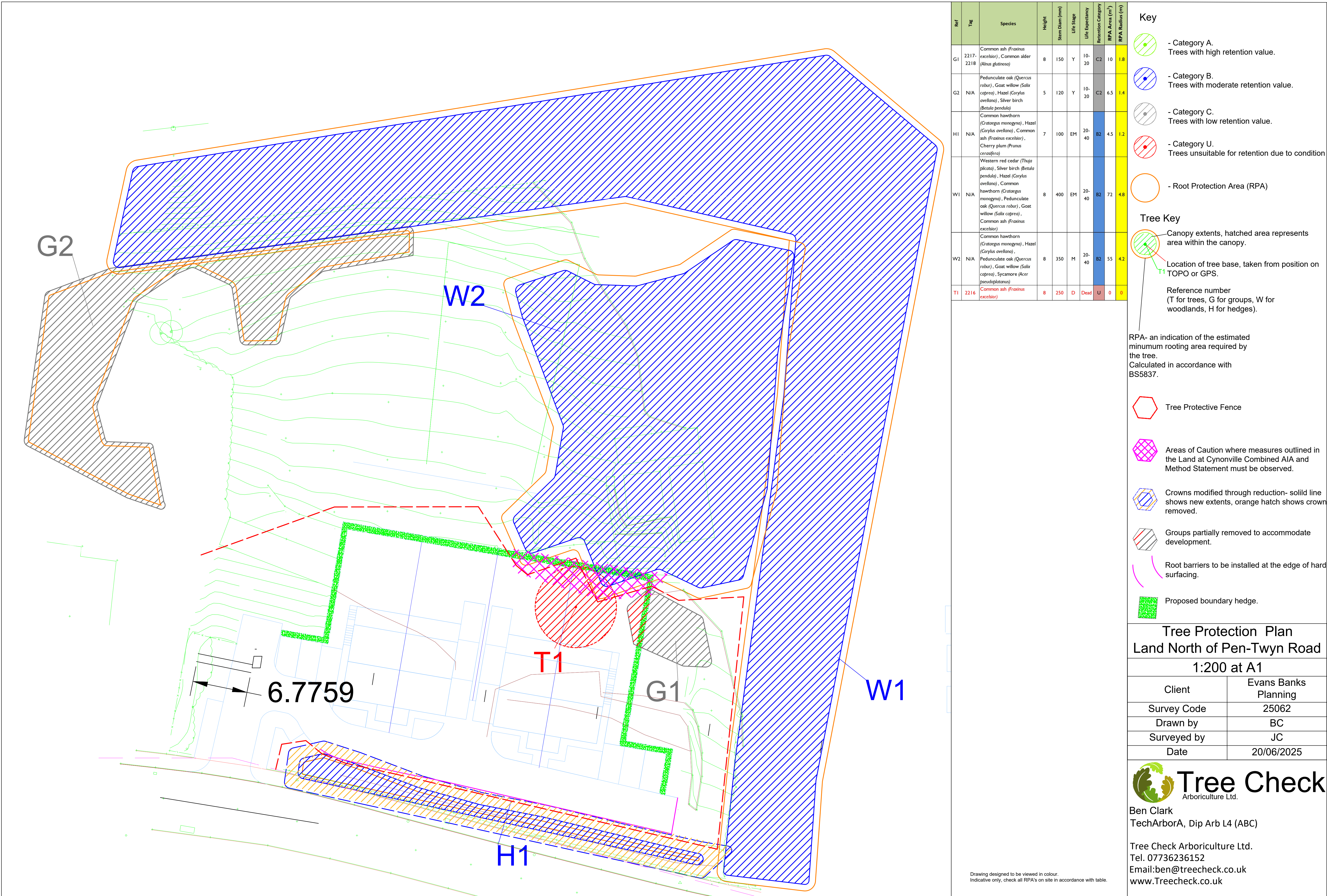


Photo 2: [HI](#) Well established mixed hedge.



Photo 3: [W2](#)- a small, wooded area made up of early mature trees.





Ref	Tag	Species	Height	Stem Diam (mm)	Life Stage	Life Expectancy	Retention Category	RPA Area (m²)	RPA Radius (m)
G1	2217-2218	Common ash (<i>Fraxinus excelsior</i>), Common alder (<i>Alnus glutinosa</i>)	8	150	Y	10-20	C2	10	1.8
G2	N/A	Pedunculate oak (<i>Quercus robur</i>), Goat willow (<i>Salix caprea</i>), Hazel (<i>Corylus avellana</i>), Silver birch (<i>Betula pendula</i>)	5	120	Y	10-20	C2	6.5	1.4
H1	N/A	Common hawthorn (<i>Crataegus monogyna</i>), Hazel (<i>Corylus avellana</i>), Common ash (<i>Fraxinus excelsior</i>), Cherry plum (<i>Prunus cerasifera</i>)	7	100	EM	20-40	B2	4.5	1.2
W1	N/A	Western red cedar (<i>Thuja plicata</i>), Silver birch (<i>Betula pendula</i>), Hazel (<i>Corylus avellana</i>), Common hawthorn (<i>Crataegus monogyna</i>), Pedunculate oak (<i>Quercus robur</i>), Goat willow (<i>Salix caprea</i>), Common ash (<i>Fraxinus excelsior</i>)	8	400	EM	20-40	B2	72	4.8
W2	N/A	Common hawthorn (<i>Crataegus monogyna</i>), Hazel (<i>Corylus avellana</i>), Pedunculate oak (<i>Quercus robur</i>), Goat willow (<i>Salix caprea</i>), Sycamore (<i>Acer pseudoplatanus</i>)	8	350	M	20-40	B2	55	4.2
T1	2216	Common ash (<i>Fraxinus excelsior</i>)	8	250	D	Dead	U	0	0

- Key**

 - Category A. Trees with high retention value.
 - Category B. Trees with moderate retention value.
 - Category C. Trees with low retention value.
 - Category U. Trees unsuitable for retention due to condition
 - Root Protection Area (RPA)
- Tree Key**

 - Canopy extents, hatched area represents area within the canopy.
 - Location of tree base, taken from position on TOPO or GPS.
 - Reference number (T for trees, G for groups, W for woodlands, H for hedges).

- RPA- an indication of the estimated minimum rooting area required by the tree.
Calculated in accordance with BS5837.
- Tree Protective Fence
 - Areas of Caution where measures outlined in the Land at Cynonville Combined AIA and Method Statement must be observed.
 - Crowns modified through reduction- solid line shows new extents, orange hatch shows crown removed.
 - Groups partially removed to accommodate development.
 - Root barriers to be installed at the edge of hard surfacing.
 - Proposed boundary hedge.

Tree Protection Plan	
Land North of Pen-Twyn Road	
1:200 at A1	
Client	Evans Banks Planning
Survey Code	25062
Drawn by	BC
Surveyed by	JC
Date	20/06/2025



Tree Check
Arboriculture Ltd.

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Drawing designed to be viewed in colour.
Indicative only, check all RPA's on site in accordance with table.

Appendix iii: Cascade Table for the Categorisation of Trees (BS5837)

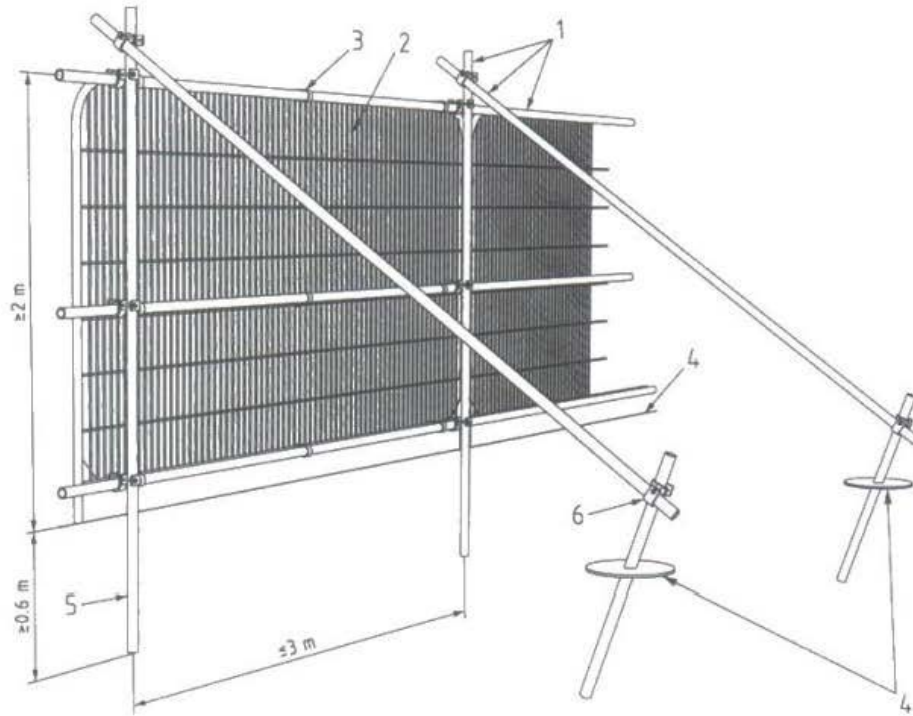
Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)		
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 U category trees (i.e. 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		
	1 Mainly Arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation
Category A Those 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 essential components of groups, or of 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)
Category B Those 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 benefits
Category C Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	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

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Appendix iv: Recommended Configuration for Tree Protective Fencing (BS5837)

Figure 2 Default specification for protective barrier



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

Appendix v: Glossary

Aerial Inspection: A close inspection of the aerial part of a tree, either by mobile elevated work platform (MEWP) or by a tree surgeon (climbing inspection). **Adaptive Growth;** The growth of new wood in response to a stress concentration in the structure of a tree

Adventitious; A shoot which arises from tissue other than a growing shoot apex or bud, for instance in callus associated with a wound.

Anchorages; The holding of the structural root system of a tree with in the soil,.

Architecture; the formation and distribution of a trees branch system.

Arboricultural Impact Assessment: That part of the BS 5837 (2012) procedure that evaluates the tree-related constraints to a development (loss of trees, encroachment into root protection areas etc.).

Arboricultural Method Statement: That part of the BS 5837 (2012) procedure that sets out how site works should be carried out near trees to avoid accidental damage.

Arboriculturalist: A person skilled or knowledgeable in the field of arboriculture. The alternative term 'arboriculturalist' is sometimes used. A Person trained and experienced in the management of trees, and trees in relation to construction.,

Assessment; The process of examining the variables involving a trees condition and location in order to assess the risk posed by an individual tree.

Bole (trunk): The main , vertical stem or trunk of a tree.

Branch: a limb extending from the main stem or parent branch of a tree

Canopy: the combined foliage of a group of trees or a woodland, i.e. the combined area of numerous crowns.

Construction Exclusion Zone; The part of a development site from which all pedestrian and vehicular movements are excluded by protective fencing, typically to ensure the wellbeing of trees, during site works. Usually determined by the RPA of a tree.

Crown: in arboriculture the main foliage-bearing portion of a tree containing the leaves and branches

Defect: Any feature of a tree that is likely to make it less safe (in the case of a structural defect) or otherwise to reduce its health, longevity, landscape prominence or conservation value for any other reason.

Dysfunction: The cessation of physiological function in woody material, especially vascular functions such as water and sap transportation.

Failure: Fracture or deformation in any load bearing part of the tree, compromising stability or causing loss of support for part of, or all of the tree structure,

Group: More than one tree in close proximity that possess sufficient similarity or cohesiveness that they can be treated as a single entity for the purpose of this report.

Heave: deformation of shrinkable clay soil related to the expansion caused by rehydration.

Leader: the dominant, vertical shoot or stem of a tree.

Pruning: The cutting off or cutting back of tree branches or foliage to direct growth, remove an obstructing part, mitigate a nuisance, make safe, remove a diseased part, increase longevity, simulate natural damage, enhance habitat for wildlife etc.

Retained Tree: a tree that has been considered suitable for retention and therefore selected to remain as part of the final site layout.

Risk: the likelihood of a hazard to cause actual harm to people or property,

Root Protection Area (RPA); The area around the base of a tree that contains sufficient root volume to ensure the future well-being of the tree in the event of nearby soil disturbance (as on a development site). It is calculated according to guidelines in BS 5837 (2012).

Subsidence (branch): Branches, especially if spreading, tend gradually to subside under their own weight, and may eventually reach ground level in large open-grown trees. Rapid subsidence may result in crown separation or congested bark and can lead to branch failure where there is no support within the elastic limit of a given branch.

Subsidence (soil): Broadly, the downward movement of ground and an affected foundation influenced by soil properties, weather, foundation depth and nearby vegetation.

Targets: An element of tree risk: the subject of injury or damage within range of a hazard.

Tree: The definition of 'tree' is a composite of tree species, tree form and tree size. The blue book offers the following: A perennial plant with a self-supporting woody main stem, usually developing woody branches at some distance from the ground and growing to a considerable height and size. This definition has the three main elements in general form. **For the purposes of 5837 surveys, only plants with a stem diameter of 75mm or above are considered trees.**

Tree Constraint Plan (TCP): Site plan showing the tree-related constraints to development as envisaged in BS 5837 (2012). Common constraints are the loss of trees, encroachment into a tree's root protection area.

Tree Condition Inspection/Survey: A procedure to inspect a tree or trees. Variables used to describe a tree include position (if not already plotted on a topographical survey), species identity, maturity, various dimensions (main stem diameter, height, crown radius etc.), aspects of form, vigour, condition, incidence of pests, diseases, damage and defects, evidence of past management etc. Site factors, position in the landscape and site usage may also be relevant, usually including its position, species identity, dimensions, age class, condition, conservation value etc. as appropriate, and to identify and evaluate defects. It is also common to make management recommendations (see schedule of works). Tree inspection is a fundamental of tree management and advisory practice in arboriculture.

Tree Preservation Order: (UK) an order made by a local authority or other planning authority to protect a tree, group of trees, area of (scattered) trees or woodland under Part VIII of the Town and Country Planning Act 1990. There have been several amendments, the latest being the Town and Country Planning (Tree Preservation) (England) Regulations 2012. An order is generally made on the grounds of amenity and expediency. Anyone proposing works to a TPO tree must seek prior consent from the authority using the form IAPP. With the advent of the 2012 regulations, some of the detail in existing TPOs in England has been revoked.

Tree Protection Plan: scale drawing prepared by an arboriculturalist showing the final layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement (AMS), which can be shown graphically.

Trunk: see bole.

Vigour: The health and resilience of a tree (from the Latin 'to be strong'), reflected in the capacity of the whole tree to grow (see growth rate). The term is often used as a description of overall condition on a qualitative scale from 'high' to 'low'.

Visual Tree Assessment (VTA): The standard approach to tree risk assessment consisting of the diagnosis of structural defects and the evaluation of their significance from visible signs and the application of biomechanical criteria. Simple equipment such as a sounding mallet, probe and binoculars are commonly used.

Wind exposure: the degree to which a tree or other object is exposed to wind, with regard both to duration and velocity, often taking into account prevailing wind directions.

Windthrow: the blowing over of a tree at its roots.

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Limitations

1. This survey reflects the condition of the trees as they were observed on 04/10/2023. The condition of trees can change quickly and if any significant change is observed then a qualified arboriculturist should be consulted regardless of the recommended reinspection period.
2. While every attempt has been made to provide accurate recommendations based on the condition of the observed trees, Tree Check Arboriculture Ltd. can accept no liability for damage, injury, or loss of property caused by faults that were not apparent at the time of inspection. These include but are not limited to faults that may only be visible seasonally such as fungal fruiting bodies, or faults that were obscured or inaccessible to the surveyor such as those high up in the crown or obscured by ivy.
3. During adverse weather conditions such as storms, otherwise healthy trees can fail. Trees should be visually inspected after any high winds.
4. This report cannot predict the reaction of inspected trees to external factors such as extreme climate events, accidents, or vandalism.
5. The author(s) can accept no liability for damages if the recommended works are not carried out as per this report in line with BS:3998.
6. Operational recommendations (e.g.) climb and dismantle, are for loose guidance only. It remains the responsibility of the assigned contractor to decide on the safest work method. Tree Check Arboriculture LTD. accepts no responsibility for damages occurring during the carrying out of recommended works.
7. This report does not cover any underground part of trees, nor does it consider any affect inspected trees may have on shrinkable clay soils since these issues are almost entirely restricted to areas of shrinkable clay soils and soil analysis was not specified in the brief.
8. **Recommendations made in this report do not override any legislation covering the affected trees. Trees in a conservation area, trees subject to preservation orders and groups of trees requiring felling licenses still require relevant permissions before work can be carried out. Unless otherwise agreed the Tree Check Arboriculture LTD will not be checking for the presence of this legislation or be applying for these permissions. The Client must contact the consultant if they are unsure on this matter.**
9. Certain areas of the site were inaccessible in the time scale of this survey due to dense vegetation cover. Areas and trees where this has been an issue are described in certain trees and groups in the survey table.
10. **The findings of this report cannot be relied upon after 12 months from the time of inspection or the recommended reinspection date (if sooner).**

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