



BS5837 – Arboricultural Report

8 Wincroft Road, Caversham

Prepared for

Victoria Hoyle & Chris Latchford

8 Wincroft Road

Caversham

Reading

RG4 7HH

Prepared By:

David Randall BA (Hons), Dip Arb L4 (ABC), TechArborA

David Randall Tree Consultancy

07941 794 154

info@davidrandalltreeconsultancy.com

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References

- British Standards Institution (2012). *BS 5837:2012 Trees in relation to design, demolition and construction*.
- British Standards Institution (2010). *BS 3998:2010 – Tree Work: Recommendations*.

1.0 Instruction

This BS5837 report has been instructed by Victoria Hoyle

I have been asked to produce a BS 5837:2012 Arboricultural Assessment to support a planning application for the erection of a modular timber out-building.

The site visit was carried out on Friday 31st July 2026.

All trees with a stem diameter over 75mm (measured at 1.5m above ground level) within influencing distance have been mapped, and measurements of height (estimated) and DBH (Diameter at Breast Height – 1.5m above ground) have been taken along with crown spread. OTTIS Pear Technology has been used to calculate Root Protection Areas (RPA).

The trees were surveyed visually, externally and from ground level only. No samples or internal decay detection readings were taken for further analysis. Non-invasive inspection equipment was used (probe and mallet) to assess the trees structural integrity of the base and stem. A tape measure has been used to take other relevant measurements.

Topographical surveys were not available for the purposes of this report. Therefore, exact tree positions may vary slightly; the report is intended for planning and tree management guidance, not for detailed engineering design. All Trees have been mapped using geo referenced site block plans in conjunction with OTTIS Pear Technology.

No conversations took place between arboriculturist and client while the survey was undertaken.

2.0 Limitations

- The contents are intended for the sole use of the client and the property owner. No liability is accepted for their use by any other parties to advance an argument or claim (including legal or financial) without prior consent.
- No liability is accepted for defects hidden from view by soil, vegetation or other obstacles to access.
- Formal assessment of topography, drainage, service conduits, & soil conditions will not be made and are beyond the scope of this report.
- Specific laboratory investigations of soil properties (plasticity index, moisture content, soil suction pressure) will not be made and are beyond the scope of this report.
- This report has been prepared for the purposes of BS5837:2012 (Trees in relation to design, demolition and construction) and is not intended to provide a comprehensive assessment of tree safety. Any references to defects, structural conditions, or potential safety concerns are preliminary observations only and should not be considered exhaustive.

- This report is based on information provided by the client, architect, planning consultant, or other third parties. We accept no liability for inaccuracies arising from incorrect, incomplete, or amended design information.
- The presence, extent, and distribution of tree roots and underground obstructions cannot be fully determined without intrusive investigation. All Root Protection Areas (RPAs) shown are theoretical zones based on BS 5837 guidance and do not guarantee the absence or presence of roots beyond or within those areas.
- Interpretation of BS 5837 reports, Tree Constraints Plans (TCP), Tree Protection Plans (TPP), and Arboricultural Method Statements (AMS) rests with the Local Planning Authority and its appointed officers. We accept no liability for decisions made outside our control.
- BS 5837 outputs including TCPs, TPPs, and AMS documents are prepared in accordance with the proposed development layout at the time of instruction. Any subsequent amendments to layout, levels, access, drainage, or construction methodology may invalidate all or part of the report and require revision.
- Responsibility for compliance with tree protection measures on site rests with the appointed contractor unless otherwise agreed in writing. DRTC cannot be held responsible for damage caused by site operations, negligence, or deviation from the approved Tree Protection Plan.
- DRTC cannot guarantee enforcement of tree protection measures once installed. The responsibility for maintaining protective measures and compliance lies with the site contractor and client.
- The management of tree health and safety remains the responsibility of the landowner or those in control of the land. It is recommended that a separate and detailed Tree Condition Survey be commissioned and undertaken by a suitably qualified and experienced arboricultural consultant to assess structural integrity and risk, and to enable the discharge of the landowner's 'Duty of Care' under the Occupiers' Liability Act 1984.
- Reports consider risk mitigation measures, as opposed to risk elimination. Thus, if the tree is retained, a level of risk will remain.
- Plants are biological organisms & change with time. Assessment remains valid for 12 months from the date of inspection, or until a major storm (Wind Force 6 +) and or significant snow fall is experienced.
- It is understood that any risks associated with these limitations are accepted by the clients.

3.0 Arboricultural Impact Assessment

3.1 Tree Constraints

A review of available statutory tree constraints information has been undertaken.

TPO plans can be found in the appendices.

The site comes under the influence of two TPO orders, both on third party land adjoining the property

TPO – T30/07 – Number 10 Wincroft Road

The only tree identified within this Order that would have influenced the proposed development site (**T7 – *Chamaecyparis lawsoniana* - Lawson cypress**) which is no longer present on site.

TPO 23/07 – Number 1 Lawson Drive.

Trees in this order that influence the proposed site are:

T19 – *Thuja plicata* (Western Red Cedar)

T20 – *Tilia x europea* (Common Lime)

T21 – *Thuja plicata* (Western Red Cedar)

T22 – *Thuja plicata* (Western Red Cedar)

T23 – *Sorbus aucuparia* (Rowan) – No longer present on site.

T24 – *Thuja plicata* (Western Red Cedar)

Trees Subject to a Tree Preservation Order (TPO)

A TPO protects the identified tree due to its amenity value, visibility, or contribution to the character of the area.

Where a tree is protected by a TPO under the Town and Country Planning Act 1990, the landowner must obtain written consent from the Local Planning Authority (LPA) before carrying out any works such as pruning, removal, or root disturbance. This consent is required even for routine maintenance, unless the works are exempt. An application must be submitted to the LPA detailing the proposed works and the reasons for them. Carrying out unauthorised work on a TPO tree is a criminal offence and may result in prosecution and financial penalties.

3.2 Protected Species

The Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000, afford statutory protection to birds, bats, and other wildlife that may occupy trees. These legal requirements can significantly influence when and how tree works are undertaken. To avoid disturbance to nesting birds and roosting bats, tree works should ideally be carried outside of 1 March - 31st July, when trees are less physiologically active and most protected species are less likely to be present.

3.2 The Site

The site comprises an existing residential property with a compacted gravel driveway to the front, providing a suitable area for the contractor's compound and material storage. Access to the rear garden is available via a pathway along the eastern side of the

dwelling, which provides adequate clearance for the movement of materials and the construction of the proposed modular timber building. No additional access routes are anticipated to be required.



Front elevation of main dwelling

The rear garden is predominantly laid to lawn and is bordered by planting beds containing shrubs and small ornamental trees. A sunken seating area and ornamental pond are located within the south-eastern corner of the garden, whilst a garden shed is situated at the northern boundary. The eastern boundary is dominated by large third-party trees comprising Western red cedars (*Thuja plicata*) and a lime (*Tilia* sp.).



Rear elevation



Sunken seating and pond SE corner

The proposed development comprises a modular timber structure positioned within the northern section of the rear garden. The building has a footprint of approximately 4m × 5m and will be supported on Radix ground screws installed to a depth of approximately 1,050mm at 1,200mm centres.

A single service trench, approximately 500mm in depth, will be excavated between the existing dwelling and the proposed structure to accommodate an armoured electrical supply cable.

The use of a ground screw foundation system avoids the need for conventional continuous foundations, thereby minimising disturbance to existing soil profiles and retained tree roots. The structure will be elevated to provide a minimum 100mm clearance beneath the floor, maintaining air circulation and allowing natural water infiltration where the footprint overlaps Root Protection Areas.

3.3 Trees

A tree category table is available in the appendices.

15 trees were surveyed in total.

BS5837 Category	Number of Trees
U Trees unsuitable for retention	0
A Trees of high quality	0
B Trees of moderate quality	14
C Trees of low quality	1
Trees and shrubs recommended for removal for development purposes	0

The majority of the surveyed trees have been assigned a retention category of B1 in accordance with BS5837:2012. Whilst these trees are generally in good physiological and structural condition and are expected to make a significant contribution for at least 20 years, their overall public amenity value has been assessed as low. This is primarily due to their location within the rear garden of a private residential property or on adjoining third-party land, where opportunities for public visibility and wider landscape contribution are limited.

Despite their limited public amenity value, the retained trees provide an important contribution to the site's local arboricultural resource. Collectively, they deliver a range of ecosystem services, including habitat provision, carbon sequestration, interception of rainfall, moderation of the local microclimate and enhancement of biodiversity. The mature boundary trees also contribute to the verdant character of the surrounding area by providing visual screening and continuity of tree cover beyond the application site, reinforcing the local green infrastructure.

3.4 Data tables

U Trees unsuitable for retention
A Trees of high quality
B Trees of moderate quality
C Trees of low quality

A tree category table is available in the appendices.

3.4 Data Tables

Ref.	Species	Full Structure	Measurements	Survey Notes	Retention Category	RPA	Measurements2	Recommendations
T001	Silver birch (<i>Betula pendula</i>)	Tree	Height (m): 6 Stem Diam(mm): 170 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 1.5 Lowest Branch (m): 2.5(S) Rem. Contrib.: 20+ Years	Tree showing typical form structure and vitality for its age and species.	B1	Radius: 2.0m. Area: 13 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain
T002	Rowan (<i>Sorbus aucuparia</i>)	Tree	Height (m): 5 Stem Diam(mm): 170 Spread (m): 2N, 3E, 3S, 3W Crown Clearance (m): 2.5 Lowest Branch (m): 1(SW) Life Stage: Early Mature Rem. Contrib.: 10+ Years	At 1 m stem trifurcates, included bark unions not considered an issue at this time, but as this tree grows it may require works to mitigate. Canopy showing good vitality.	B1	Radius: 2.0m. Area: 13 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Low	Retain
T003	Japanese cedar (<i>Cryptomeria japonica</i>)	Tree	Height (m): 5 Stem Diam(mm): 190 Spread (m): 2.5N, 2.5E, 2.5S, 2.5W Crown Clearance (m): 2 Lowest Branch (m): 1.5(S) Life Stage: Early Mature Rem. Contrib.: 10+ Years	Tree showing some signs of decline and die back with Browning in the canopy, possibly related to drought conditions.	C1	Radius: 2.3m. Area: 17 sq m.	Physiological Condition: Fair Structural Condition: Good Public Amenity Value: Low	Retain
T004	Ash (<i>Fraxinus sp.</i>)	Tree 2 stems	Height (m): 12 2 stems (mm): 250, 270 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 3 Lowest Branch (m): 2.5(S)	Codominant stems included bark union at base, Tree showing typical form structure and vitality for its age and species.	B1	Radius: 4.4m. Area: 61 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Low	Retain <i>Whilst not within the scope of this survey, it was noted that the tree has co-dominant stems with an included bark union at the base. It is recommended that the</i>

			Life Stage: Mature Rem. Contrib.: 10+ Years					<i>tree is monitored as part of future inspections, with appropriate remedial works undertaken should the defect show signs of deterioration</i>
T005	Western red cedar (<i>Thuja plicata</i>)	Tree	Height (m): 10 Stem Diam(mm): 300 Spread (m): 3.5N, 3.5E, 3.5S, 3.5W Crown Clearance (m): 1.8 Lowest Branch (m): 2(E) Life Stage: Mature Rem. Contrib.: 20+ Years	Third party tree unable to inspect base and stem DBH estimated. Tree showing typical form structure and vitality for its age and species.	B1	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain
T006	Western red cedar (<i>Thuja plicata</i>)	Tree	Height (m): 14 Stem Diam(mm): 300 Spread (m): 3N, 2E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 4(E) Life Stage: Mature Rem. Contrib.: 20+ Years	Third party tree unable to inspect base and stem DBH estimated. Tree showing typical form structure and vitality for its age and species.	B1	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain
T007	Western red cedar (<i>Thuja plicata</i>)	Tree	Height (m): 5 Stem Diam(mm): 300 Spread (m): 3N, 2E, 2S, 3W Crown Clearance (m): 3 Lowest Branch (m): 2(W) Life Stage: Mature Rem. Contrib.: 20+ Years	Third party tree unable to inspect base and stem DBH estimated. Tree has been historically reduced to its current height and form.	B1	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain
T008	Japanese maple (<i>Acer palmatum</i>)	Tree	Height (m): 3 Stem Diam(mm): 110 Spread (m): 2N, 2.5E, 2S, 1W Crown Clearance (m): 0.5 Lowest Branch (m): 1(S)	Typical form and structure for its age and species.	B1	Radius: 1.3m. Area: 5 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain

			Life Stage: Mature Rem. Contrib.: 10+ Years					
T010	Western red cedar (<i>Thuja plicata</i>)	Tree	Height (m): 5 Stem Diam(mm): 300 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 2 Lowest Branch (m): 3(E) Life Stage: Mature Rem. Contrib.: 20+ Years	TPO 23/07 T24 Third party tree unable to inspect base and stem DBH estimated. Tree has been historically reduced to its current height and form.	B1	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain
T011	Western red cedar (<i>Thuja plicata</i>)	Tree	Height (m): 14 Stem Diam(mm): 300 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3 Lowest Branch (m): 4(SW) Life Stage: Mature Rem. Contrib.: 20+ Years	TPO 23/07 T22 Third party tree unable to inspect base and stem DBH estimated.	B1	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain
T012	Western red cedar (<i>Thuja plicata</i>)	Tree	Height (m): 14 Stem Diam(mm): 400 Spread (m): 1N, 3E, 3S, 2W Crown Clearance (m): 3 Lowest Branch (m): 4(SW) Life Stage: Mature Rem. Contrib.: 20+ Years	TPO 23/07 T21 Third party tree unable to inspect base and stem DBH estimated.	B1	Radius: 4.8m. Area: 72 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain
T013	Lime (<i>Tilia sp.</i>)	Tree	Height (m): 16 Stem Diam(mm): 400 Spread (m): 4N, 5E, 5S, 5W Crown Clearance (m): 4 Lowest Branch (m): 5(S) Life Stage: Mature Rem. Contrib.: 20+ Years	TPO 23/07 T20 Third party tree unable to inspect base and stem DBH estimated. Tree showing typical form structure and vitality for its age and species.	B1	Radius: 4.8m. Area: 72 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain
T014	Western red cedar (<i>Thuja plicata</i>)	Tree	Height (m): 12 Stem Diam(mm): 400 Spread (m): 1N, 3E, 3S, 1W	TPO 23/07 T19 Third party tree unable to inspect base and stem DBH estimated.	B1	Radius: 4.8m. Area: 72 sq m.	Physiological Condition: Good Structural Condition:	Retain

			Crown Clearance (m): 3 Lowest Branch (m): 4(SE) Life Stage: Mature Rem. Contrib.: 20+ Years	Asymmetrical Crown due to the adjacent lime tree on its Northern aspect.			Good Public Amenity Value: Low	
T015	Foxglove tree (<i>Paulownia tomentosa</i>)	Tree	Height (m): 3 Stem Diam(mm): 170 Spread (m): 0N, 0E, 5S, 3W Crown Clearance (m): 2 Lowest Branch (m): 2(SW) Life Stage: Early Mature Rem. Contrib.: 10+ Years	Asymmetrical crown due to shading from trees or Northern aspect. Tree showing typical form structure and vitality for age and species	B1	Radius: 2.0m. Area: 13 sq m.	Physiological Condition: Good Structural Condition: Public Amenity Value: Low	Retain
T016	Robinia (<i>Robinia sp.</i>)	Tree	Height (m): 7 Stem Diam(mm): 300 Spread (m): 2.5N, 3E, 3S, 5W Crown Clearance (m): 2m Lowest Branch (m): 2(N) Life Stage: Mature Rem. Contrib.: 20+ Years	Tree showing typical form structure and vitality for age and species. Southern aspect is public footpath and public highway. Northern aspect compacted gravel driveway. Stem of tree surrounded by a shrubbery on Northern aspect to a height of 1.6 m.	B1	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: High	Retain

3.5 Definitions of terms

Tree Identification Individual trees are identified with the prefix ‘T’. Groups of trees forming cohesive features, whether aerodynamic (shelter), visual (screening) or cultural (parkland), are identified with the prefix ‘G’. Hedgerows and woodlands are referenced as ‘H’ and ‘W’ respectively.	Age Classification Trees are categorised by age class as follows: • Young (Y): First quarter of life expectancy • Semi-mature (SM): Second quarter • Early Mature (EM): Third quarter • Mature (M): Fourth quarter • Over Mature (OM): Exceeding typical life expectancy • Veteran (V): Exhibiting recognised veteran characteristics
Species Species are recorded by both their common and Latin names within the schedule contained in Appendix C. Within the main body of the report, species are referred to by their common names.	Physiological and Structural Condition The physiological and structural condition of each tree, group, hedgerow and woodland is assessed from ground level. Structural condition is described as Good, Fair or Poor, and physiological condition as Good, Fair, Poor, Moribund or Dead. Where relevant, observations are made regarding form, taper, forking habit, storm damage, decay, fungal fruiting bodies, pests and other defects. Where access is restricted, condition assessments are based on visible external indicators.
Height Tree heights are estimated on site and recorded in metres. All measurements are approximate.	Estimated Remaining Contribution (ERC) The Estimated Remaining Contribution (ERC) is expressed in years and reflects species characteristics alongside the observed physiological and structural condition. Trees with longer anticipated contributions are generally of greater significance in informing development layout and retention decisions.
Stem Diameter Stem diameter for single-stemmed trees is measured at 1.5 metres above ground level and recorded in millimetres. For multi-stemmed trees, each principal stem is measured separately. Where stems fork or exhibit swelling, measurements are taken at the narrowest point below the irregularity. Where access to the trunk is restricted, stem diameter is estimated they are identified within the survey schedule.	Category Grading Each tree has been assigned a category grading in accordance with BS5837:2012, reflecting its overall arboricultural value. Further details of the categorisation methodology are provided in the appendices of this report.
Crown Spread Radial crown spread is measured in metres to the nearest 0.5 metre (rounded up) and recorded for the four cardinal points where access permits. Where access is restricted, measurements are estimated and identified in the survey schedule. The canopy spreads shown on the accompanying plans reflect site measurements.	Preliminary Management Recommendations Any management recommendations provided are advisory and do not constitute a detailed specification for works. Where tree works are recommended, they should be undertaken by a suitably qualified arboricultural contractor in accordance with recognised best practice, including BS3998:2010 – Tree Work: Recommendations. In some cases, further investigation may be recommended to determine the extent or significance of observed defects, or to confirm the assigned category grading. Where management works are advised, an indicative timeframe for implementation is provided.
First Significant Branch and Canopy Height The height and direction of the first significant branch are recorded, together with the average canopy height above ground level.	

3.6 Recommended Tree Works and Tree Protection Plan.

Tree constraints and protection plans are available in the appendices.

Note: No topographical survey drawing was made available for the purposes of this assessment. Accordingly, the accompanying tree protection recommendations have been prepared using the supplied block plan, with tree positions, canopy spreads and associated Root Protection Areas (RPAs) plotted as accurately as reasonably practicable based on-site observations and the information available at the time of survey. All recommendations relating to tree protection, RPAs and construction constraints are therefore based upon this plan information and should be read in that context.

There are no specified tree works required for the installation of this project.

All works will be undertaken in strict accordance with the approved Arboricultural Method Statement.

Tree Protection

Tree Protection Plans and methods of tree protection are available in the appendices.

The installation of protective fencing is not considered practical due to the small, enclosed nature of the domestic rear garden and the limited scale of the proposed development. The proposal comprises a lightweight modular timber structure constructed on ground screw foundations, resulting in a low-impact construction methodology with a relatively small working area.

The retained trees within the application site are located within established planting beds, which naturally discourage construction access and provide a degree of physical protection.

The RPAs of all trees on the eastern boarder are covered by mature planting beds and the sucken seating area and pond.

All planting beds shall be treated as exclusion zones throughout the construction period.

Temporary ground protection shall be installed (as specified by the Tree Protection Plan) over any sections of Root Protection Area (outside of established planting beds) that may be subject to pedestrian access or the movement of lightweight construction equipment. In line with the approved protection plan.

As a result, the combination of a constrained working area, lightweight construction techniques and defined working practices is considered to provide an appropriate level of tree protection for this development.

Construction

The Root Protection Area of **T016** extends beneath the existing compacted gravel driveway, which will be utilised as the temporary contractor's compound.

The driveway comprises an established hardstanding that has been subject to regular vehicular loading over many years, and therefore the soil conditions within this part of the RPA are considered to have adapted to this level of use.

The tree stem is located within an adjacent shrub bed which covers the stem to a height of 1.6m, affording it natural protection.

In accordance with the principles of BS5837:2012, the continued use of an existing hardstanding for temporary site access and storage is considered acceptable where there is no material intensification of loading or disturbance to the rooting environment.

As the proposed construction activity will utilise the existing hardstanding without any alteration to ground levels, excavation, or increase in loading beyond that associated with its current use, no additional tree protection measures are considered necessary within this section of the RPA.

Installation of Ground Screws

Radix ground screws installed to a depth of approximately 1,050mm at 1,200mm centres.

The use of a ground screw foundation system avoids the need for conventional continuous foundations, thereby minimising disturbance to existing soil profiles and retained tree roots. The structure will be elevated to provide a minimum 100mm clearance beneath the floor, maintaining air circulation and allowing natural water infiltration where the footprint overlaps Root Protection Areas.

Should significant woody roots be encountered during the installation of the ground screws, the position of individual screws can be adjusted slightly to avoid root severance while maintaining the structural integrity of the foundation system. Minor positional amendments can be undertaken where necessary.

The Root Protection Areas of **T006 and T007** marginally overlap the north-eastern corner of the proposed structure. As the stem diameters of these trees have been estimated due to access constraints, it is acknowledged that the calculated RPAs represent an informed approximation and may vary slightly from the theoretical extent. Therefore, all ground screws will be installed in line with the approved method statement.

Service trench

A single service trench, approximately 500mm in depth, is proposed to accommodate an armoured electrical supply cable between the existing dwelling and the proposed modular structure. The trench alignment has been designed to remain outside the Root Protection Areas of retained trees. The service installation shall be undertaken in accordance with the Arboricultural Method Statement detailed below to ensure that any potential impacts on retained trees are minimised.

Ongoing Maintenance

While the crowns from adjacent trees don't currently overhang the proposed structure it is recommended that gutter guards are installed to mitigate any blockages that may occur by falling debris from trees.

4.0 Arboricultural Method Statement.

This method statement has been prepared in accordance with BS5837:2012 – Trees in relation to design, demolition and construction. It sets out the measures required to protect retained trees and their Root Protection Areas (RPAs) during the proposed development.

Tree Protection

All retained trees and RPAs will be protected in accordance with the approved Tree Protection Plan (TPP).

Ground Protection

Before any construction activity or material delivery takes place within areas identified on the Tree Protection Plan, temporary ground protection shall be installed to prevent soil compaction.

Ground protection shall comprise proprietary interlocking ground protection mats, scaffold boards laid over a compressible layer, or an equivalent load-distribution system suitable for the anticipated loading.

Protective ground matting shall be installed within the footprint indicated on this plan. Existing mature planting beds and borders within these areas are excluded and shall not be covered by the matting. The exact layout of individual panels may be adjusted locally to avoid retained vegetation.

Ground protection shall remain in place for the duration of the works and shall only be removed once all construction activities have been completed.

No storage of plant, materials, excavated spoil, fuels, chemicals, cement, washout or waste shall take place within any areas protected by ground matting.

Protection of Retained Trees

All planting beds shall be treated as exclusion zones throughout the construction period. No excavation, changes in soil level, trafficking, storage of materials, mixing of wet materials or washout activities shall occur within these areas.

Construction traffic shall be restricted to the agreed access route shown on the Tree Protection Plan.

No additional access routes shall be created within retained RPAs without prior written approval from the LPA.

Should any unforeseen excavation, root exposure or deviation from this method statement become necessary, works shall cease immediately and the Project Arboriculturist shall be consulted before any further operations are undertaken.

Following completion of the development, all temporary ground protection shall be carefully removed, and any disturbed ground shall be reinstated to its original condition without causing damage to retained trees or their rooting environment.

Site access

The contractor's site compound, welfare facilities, plant parking and materials storage area shall be located on the existing hardstanding comprising the driveway and garage area, to the South of the plot as shown on the Tree Protection Plan.

No storage of materials, plant, spoil, fuels or chemicals shall take place outside these designated areas.

No materials, fuels, washout or excavated spoil to be stored within the adjacent soft landscape areas to the compound.

Site access for personnel, plant and the delivery of materials shall be via the existing access path along the eastern boundary of the site.

Installation of Ground Screws

Ground screws located within or adjacent to retained RPAs shall be installed using a low-impact methodology.

Ground matting shall be removed locally at the edge of the Root Protection Areas of **T006** and **T007** for the installation of the approved ground screws on the eastern elevation of the proposed structure. Ground protection shall be reinstated immediately following completion of the installation works.

Prior to installation of each screw, the proposed location shall be marked out and investigated by an experienced installer using a suitable metal bar or similar hand tool. The tool shall be inserted/probed progressively into the ground to identify the presence and approximate location of woody roots within the immediate installation zone.

Where a woody root 25mm or greater in diameter is encountered, the proposed screw location shall be relocated to the nearest practicable position that avoids the root, whilst maintaining the required structural support for the proposed structure. Roots shall not be severed, crushed or otherwise damaged to facilitate installation.

Once a suitable location has been confirmed, the installer shall form the pilot hole using the specified installation method, taking care to avoid identified roots. The ground screw shall then be installed to the required depth of approximately 1,050 mm.

If a root not identified during the initial investigation is encountered during pilot-hole formation or screw installation, works at that location shall cease and the screw shall be repositioned to avoid the root.

Electrical Service Trench

The electrical service trench shall be clearly marked on site prior to excavation.

The trench constructed using conventional excavation methods.

Should roots be encountered during excavation, works shall proceed with due care to minimise damage to the rooting environment.

Where roots less than 25mm in diameter are unavoidably affected, they may be pruned cleanly using sharp secateurs or handsaws.

Roots exceeding 25mm in diameter shall be retained wherever practicable and the trench alignment shall be locally adjusted to avoid severance.

If significant woody or structural roots are encountered that cannot be avoided, excavation shall cease immediately.

Roots to be wrapped in damp hessian and the Project Arboriculturist shall be notified to inspect the roots and provide further recommendations before works continue.

The armoured electrical cable shall be installed immediately following excavation, after which the trench shall be backfilled with the excavated material and lightly consolidated.

The excavation shall remain open for the minimum period necessary.

No excavated spoil shall be stored within the RPAs of retained trees.

Mixing of wet materials

All wet-trade materials shall be mixed only within a designated mixing station located outside of RPAs.

The designated mixing area shall comprise:

- proprietary mortar bath or mixing tray
- impermeable drip tray
- heavy-duty polythene sheet beneath
- raised lip / bunded edge containment
- minimum spill containment area of approximately 1m x 1m

Material Storage

No storage of materials, demolition arisings, plant, equipment, spoil, fuel, chemicals, or other potentially contaminating substances shall occur within any Root Protection Area.

All designated storage, mixing, and refuelling areas shall be located outside RPAs and clearly communicated to all contractors prior to commencement of works.

Materials shall be delivered on a just-in-time basis where practicable in order to minimise onsite storage requirements.

Fuel, oils, paints, adhesives, and other liquid substances shall be retained within sealed containers when not in immediate use and stored outside RPAs at all times in accordance with the approved Tree Protection Plan

Spill Response Measures

A spill response kit shall be always kept on site.

This shall include:

- absorbent granules
- absorbent pads
- heavy-duty waste bags
- shovel / scraper

In the event of accidental spillage, the material shall be immediately contained, absorbed, and removed from site.

The supervising arboriculturist shall be informed where any significant spill occurs within the RPA.

Fires

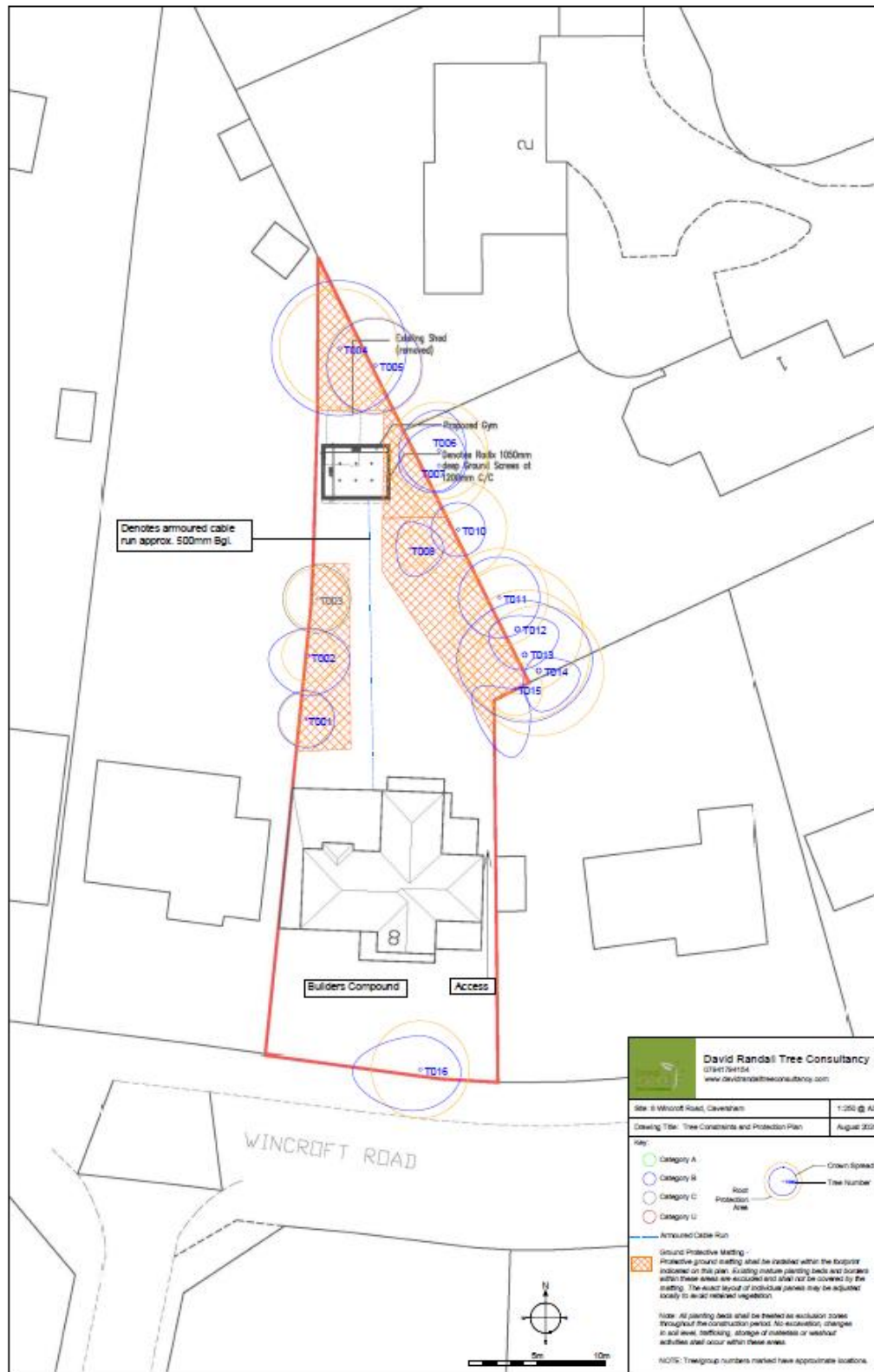
No fires will be lit on site, and burning of waste materials is strictly prohibited to avoid heat damage to trees or roots.

Site Supervision and Compliance

All contractors will be briefed on tree protection measures prior to commencing works. Tree protection measures must not be removed, altered, or breached without written approval from the LPA.

5.0 Appendices

5.1 Tree Constraints and Protection Plan (A separate PDF copy will be made available with the Arboricultural report)



5.2 Cascade Chart for Tree Quality (Table 1 BS5837:2012 Trees in relation to design, demolition and construction)

Category and definition	Criteria (Including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

5.3 Tree Protection Methods

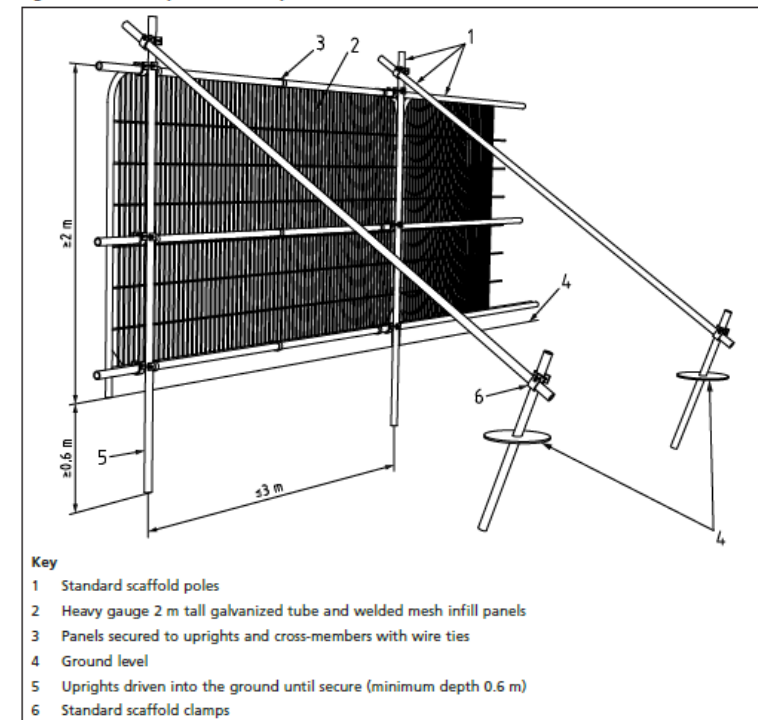
Extracts from *BS5837:2012 Trees in relation to design, demolition and construction*, showing best practice for protecting RPA with matting and fencing.

6.2.3.3 New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

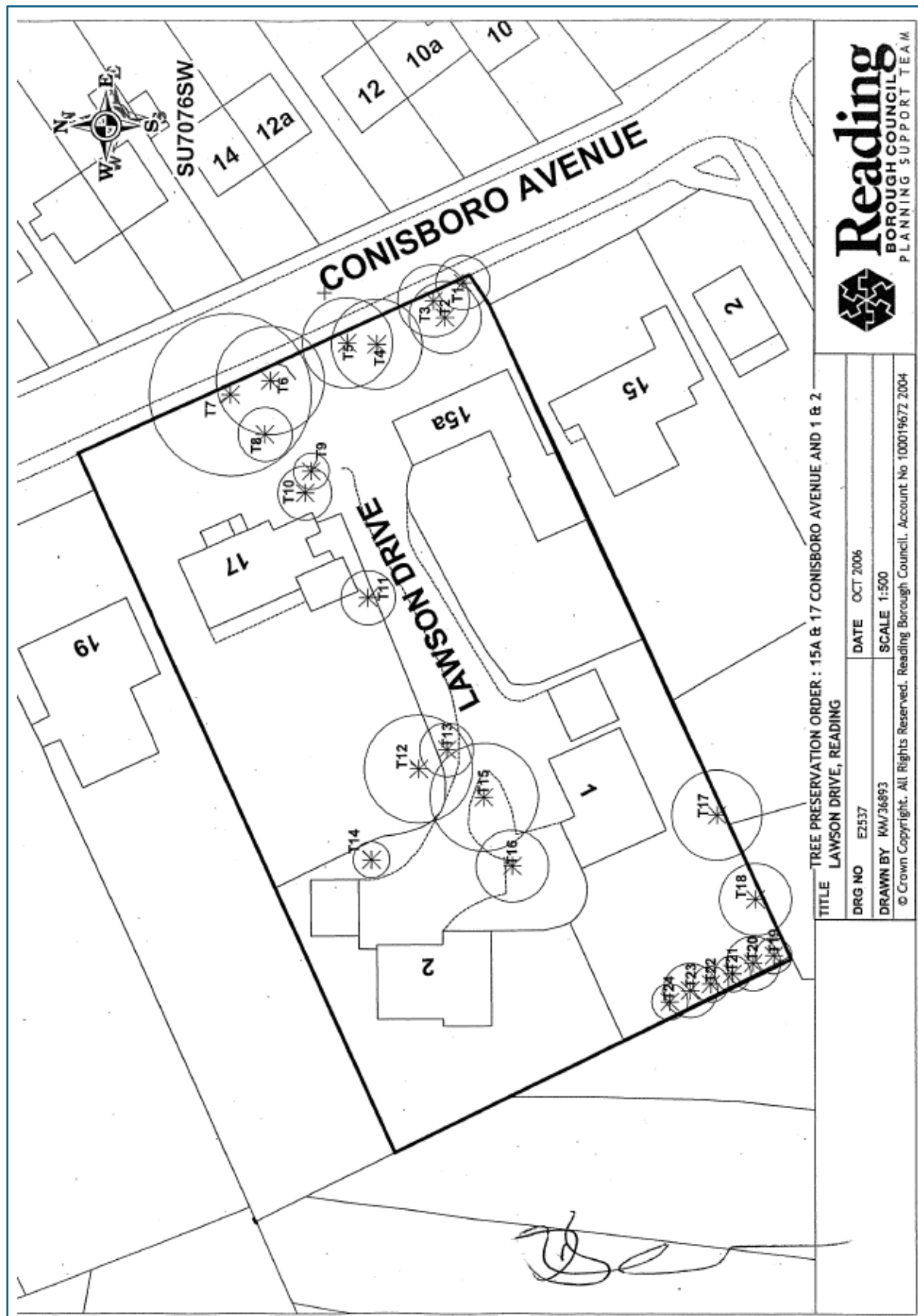
NOTE The ground protection might comprise one of the following:

- a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;
- b) for pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane;
- c) for wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

Figure 2 Default specification for protective barrier



5.4 Tree Protection Order - 23/07 – Number 1 Lawson Drive



Tree Protection Order - T30/07 – Number 10 Wincroft Road

