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Arboricultural Report

Including a tree survey, impact assessment and method statement
for a replacement dwelling at

121 Nashgrove Lane, Finchampstead,
Berkshire, RG40 4HG

Reference: MW.2412.NLF.AIA
Client: Mr & Mrs Gallagher
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Executive Summary

Trees are a consideration in this planning application for two dwellings. Therefore, this report has been drafted to provide the information required to enable the local planning authority to meet the duty placed upon them by section 197 of the Town and Country Planning Act (as amended, 2021).

Included are a BS5837:2012 compliant tree survey, arboricultural impact assessment, and tree protection strategy that includes a method statement and tree protection plan.

Five trees are to be removed to facilitate the proposals. One spruce is of moderate quality, three are of low quality, and one is of poor quality. Eight new trees are to be planted in compensation.

The replacement dwelling has been designed to maximise the available space while minimising root protection area encroachments. While most of the house is outside RPAs, the garage utilises the original garage footprint to build closer to the adjacent oak tree. Sensitive construction methods are proposed to minimise impact in this area.

Three other areas require sensitive work to minimise tree impacts: the new gate, the demolition of the pool, and the new drive.

Provided the protection strategy is implemented as outlined, this application has a low arboricultural impact and is thus acceptable.



Table of Contents

1. Instructions and Terms of Reference	3
Documents Supplied	3
2. Statutory & Other Relevant Constraints	4
Tree Preservation Orders	4
Conservation Areas	4
The Forestry Act	5
Sites of Special Scientific Interest (SSSIs)	5
Ancient Woodland	5
Veteran Trees	5
Ecology	6
3. Survey Scope & Methodology	6
4. Arboricultural Impact Assessment	7
Proposal	7
Tree Removals	7
Tree Surgery	7
Construction Impact	7
Arboricultural Oversight	8
Barrier Type	8
Service & Utility Provisions	8
Summary	8
5. Arboricultural Method Statement	9
Phasing	9
Pre-start Audit/Meeting	10
Construction Exclusion Zone (CEZ)	10
Protection Barriers	11
Ground Protection	11
Site Induction	12
Tree Surgery	12
SPA 1: No-dig Garage Construction	13
SPA 2: Installation of 'No-Dig' Geocell Surface	13
SPA 3: Demolition of Pool Paving	15
SPA 4: Gatepost Installation in RPA	15
Installation of Underground Services	16



Hard Surface Removal	17
6. Limitations of Use and Copyright.	18
Appendix	19
i. Tree Protection Barriers	20
ii. Tree Categories Explained	22
iii. Protection Plan	23

1. Instructions and Terms of Reference

- 1.1. In December 2024, I was instructed by Mr & Mrs Gallagher to undertake a tree survey and subsequently, in July 2025, to produce this report to accompany a planning application for a replacement dwelling at 121 Nashgrove Lane, Finchampstead, Berkshire, RG40 4HG.
- 1.2. Following the recommendations of the British Standard¹, this report includes the necessary information to enable the local planning authority to meet the duty placed upon them by section 197 of the Town and Country Planning Act (as amended, 2021).
- 1.3. It demonstrates that the proposal's impact, both direct and indirect, has been assessed, and mitigation, compensation, and tree protection have been proposed where appropriate.
- 1.4. Correctly implementing the tree protection specified in this report is critical for ensuring the retained trees are successfully protected throughout construction.
- 1.5. The assessment considers the proposal's impact on the constraints of trees retained within the site and those on adjacent land. Such impact can be caused directly through construction damage and indirectly from post-development resentment and pressure to detrimentally prune or remove the trees. The latter is often due to a poor juxtaposition between the proposal and the trees.
- 1.6. A tree's root protection area (RPA) represents a minimum area in m² that shall be left undisturbed around it. This is initially represented by a circle but is fundamentally an area of rooting volume. It is often adjusted to account for constraints to root growth within the site (primarily highways and buildings). The British Standard provides recommendations regarding the protection of existing trees during the construction process. This is achieved by ensuring a tree protection strategy is implemented before any demolition or construction on site.

Documents Supplied

- Proposed: 431.P.30.A Proposed Site LayoutTree Overlay 1.200.pdf
- Site survey: TVG581 121 Nashgrove Lane Survey Drawings.dwg

¹BS5837:2012 Trees in relation to design, demolition and construction

2. Statutory & Other Relevant Constraints

Local Planning Authority	Wokingham District Council
Tree Preservation Orders https://experience.arcgis.com/experience/	None
Conservation Areas https://experience.arcgis.com/experience/	None
Forestry Act (1967)	Gardens are exempt
Ancient Semi-Natural Woodland (ASNW) https://magic.defra.gov.uk/MagicMap.aspx	None
Ancient Tree Inventory https://ati.woodlandtrust.org.uk/tree-search/?v=	None
Obvious veteran trees	None
Sites of special scientific interest (SSSI) https://magic.defra.gov.uk/MagicMap.aspx	None
Legal covenants and outstanding planning conditions	Not Known
Bedrock: British Geological Survey: https://geologyviewer.bgs.ac.uk/? ga=	Bagshot Formation - Sand
Soil: Landis SoilScape https://www.landis.org.uk/soilscapes/	Loamy soils with naturally high groundwater

Tree Preservation Orders

2.1. A Tree Preservation Order (TPO) is issued by a local planning authority to protect specific trees, groups of trees, or woodlands for the sake of public amenity. A TPO prohibits actions such as cutting down, topping, lopping, uprooting, or causing intentional damage or destruction to the trees without obtaining written consent from the local planning authority. If consent is granted, it may come with conditions that must be adhered to. This process is regulated by the Town and Country Planning Act 1990.

Conservation Areas

2.2. Trees located in conservation areas that are not already protected by a Tree Preservation Order (TPO) still have protection. Anyone intending to cut down or perform work on a tree in a conservation area must notify the local planning authority at least six weeks in advance. This notice period allows the authority to determine whether a TPO should be served to protect the tree. This regulation is also governed by the Town and Country Planning Act 1990.

The Forestry Act

2.3. The Forestry Act 1967 governs tree felling in the UK. To fell more than five cubic metres of timber in any calendar quarter, you must obtain a felling licence from the Forestry Commission. There are some exceptions to this requirement, including trees that are located in gardens, churchyards, or orchards.

Sites of Special Scientific Interest (SSSIs)

2.4. SSSIs are protected areas designated for their wildlife, habitats, geological or physiographical features. Any work affecting trees within an SSSI requires consent from Natural England. This includes felling, lopping, or uprooting trees. This is controlled by the Wildlife and Countryside Act 1981.

Ancient Woodland

2.5. Ancient and semi-natural woodlands are crucial for protecting biodiversity and supporting rare species. They help maintain ecological balance and carry cultural and historical value as reminders of the original forests that once covered much of the UK.

2.6. Planning policies protect these woodlands by requiring local authorities to deny development projects that would harm or destroy ancient woodlands. A development can only proceed if it is clearly demonstrated that its benefits outweigh the losses. This requirement is supported by the National Planning Policy Framework (NPPF).

2.7. Ancient Semi-Natural Woodland (ASNW) includes native trees that have grown and developed naturally. These woodlands have existed for centuries, remaining wooded since at least 1600 AD in England, Wales, and Northern Ireland, and since 1750 in Scotland. They support a variety of plants, fungi, insects, and other microorganisms, making them rich in biodiversity.

2.8. Plantations on Ancient Woodland Sites (PAWS) are areas where ancient woodlands were cut down and replanted, often with non-native species, usually conifers. Although these sites have been replanted, they still have a complex soil structure and remnants of the original woodland species. Efforts often focus on restoring these areas to their natural state.

Veteran Trees

2.9. Veteran trees are protected through planning policy and sometimes TPOs. They are often ancient trees that have significant ecological, cultural, or historical value. Local planning authorities are required to consider the impact of development on veteran trees and to protect them where possible. This is also supported by the National Planning Policy Framework (NPPF).

Ecology

2.10. The Natural Environment and Rural Communities Act 2006 places a duty on public authorities to have regard to conserving biodiversity when carrying out their functions. This includes protecting trees that provide habitats for wildlife. The Wildlife and Countryside Act 1981 also provides protection for certain species of plants and animals, making it an offence to intentionally damage or destroy their habitats.

3. Survey Scope & Methodology

- 3.1. Tree survey data can be found on the appended plan.
- 3.2. The tree survey has been carried out following the recommendations of The British Standard and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged.
- 3.3. The reference numbers of surveyed trees and groups of trees are shown on the tree reference plan, which is appended to this report and based on the supplied survey drawing. Stem locations within groups may be estimated, and indicative of canopy only.
- 3.4. The tree survey was carried out from ground level only, with the aid of binoculars as necessary, following the Visual Tree Assessment² (VTA) method.
- 3.5. Where trees are located on neighbouring land, an estimated appraisal of their quality and dimensions has been made.
- 3.6. Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.
- 3.7. Tree heights were measured with a clinometer or estimated in relation to those measured.
- 3.8. Trunk diameters are measured at 1.5m above ground level, where this is not possible, then Figure C.1 of the British Standard is followed.
- 3.9. Tree canopies were markedly asymmetrical, and were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. For the canopies of groups of trees, the maximum radius for each compass point is measured (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).
- 3.10. All estimated dimensions are noted in the data.

² Mattheck, C. & Breloer, H., 1998. The Body Language of Trees: A Handbook for Failure Analysis. London: H.M.S.O.

4. Arboricultural Impact Assessment

Proposal

- 4.1. It is proposed to replace the existing dwelling, the layout of which can be seen on the appended plan.

Tree Removals

- 4.2. Five trees are to be removed to facilitate this proposal. They are listed on the appended plan and comprise one of poor quality (category U), three of low quality (category C) and one of moderate quality (category B). With regard to the moderate quality tree, it is a conifer of limited wider landscape value.
- 4.3. Eight new trees are to be planted in compensation.

Tree Surgery

- 4.4. There are no plans for any tree surgery work at this stage.

Construction Impact

- 4.5. The replacement dwelling has been designed to maximise the available space while minimising root protection area encroachments. While most of the house is outside RPAs, the garage utilises the original garage footprint to build closer to the adjacent oak tree. Sensitive construction methods are proposed to minimise impact in this area.
- 4.6. Three other areas require sensitive work to minimise tree impacts: the new gate, the demolition of the pool, and the new drive.
- 4.7. The plan identified the above as Special Protection Areas (SPA).
- 4.8. **SPA 1:** The existing garage will be sensitively demolished (the slab may be retained). Once removed, the new floor will be either cantilevered over the old slab or founded upon helical screw piles and cast above existing levels. An engineer must provide this detail, which can be ensured via an appropriately worded planning condition as an addendum to the arboricultural method statement. All work in this area will be subject to arboricultural oversight.
- 4.9. **SPA 2:** The new drive surface and field access are within RPAs. Therefore, this will be a no-dig style surface. Typically called a cellular confinement system (CCS), this surface will be laid above ground to spread the load of the vehicles, minimising compaction to the underlying root zone.
- 4.10. Again, this work will be overseen by the project arboriculturist and subject to the method statement section of this document.

- 4.11. **SPA 3:** The corner of the paving around the old swimming pool is close to oak #08 and within its circular RPA. Therefore, sensitive demolition will be carried out, and the RPA will be fenced off on completion, as described in the method statement section of this document.
- 4.12. **SPA 4:** The new gate. The method statement details how any excavation for the supporting posts must be carried out sensitively.

Arboricultural Oversight

- 4.13. Some sites require more arboricultural involvement during the construction process than others. This is typically commensurate with the pressure on retained trees and the complexity of the tree protection strategy.
- 4.14. For this project, a pre-start meeting/tree protection audit before demolition starts is proposed. Supervision will also be required during some tasks (see method statement).
- 4.15. It is my opinion that regular monitoring visits would not be necessary for this project.

Barrier Type

- 4.16. As the proposed construction work is comparatively 'low impact', the default British Standard tree protection specification seems somewhat onerous. Therefore, it is my opinion that an adequate level of protection can be provided with a lesser specification.
- 4.17. Alternative specifications can be found in [Appendix i](#). TPF 2 or TPF 3 are proposed.

Service & Utility Provisions

- 4.18. It is presumed that the existing service and utility connections will be reused, avoiding trenching down the long drive.

Summary

- 4.19. Provided the tree protection strategy is implemented as outlined in the following method statement, this application has a low arboricultural impact and is thus acceptable.
- 4.20. Should the council wish to see more onerous tree protection methods, this can be ensured via an appropriately worded planning condition and should not be the basis for a reason for refusal.

5. Arboricultural Method Statement

- 5.1. The tree protection on this site is subject to implementation as detailed in the following sections.
- 5.2. The recommendations of the British Standard have been applied where viable. Where deviations from the preferred approach are required, the impact on any retained trees is minimised through a combination of supervision from an arboriculturist and adherence to the associated method statement.
- 5.3. Once permission is granted, the strategy must be followed to avoid impacting the trees and adhere to any planning conditions.
- 5.4. The information within this section must be passed to the site foreman and cascaded to all relevant personnel involved in the project.
- 5.5. Any questions about the content or its implementation shall be directed to **Mark Welby Consulting Arborists at 01730 239492** before action is taken.
- 5.6. A tree protection plan showing the types of tree protection and their locations is appended. It includes the tree survey data, existing site features and the approved construction. The plan must be read in conjunction with this method statement.

Phasing

- 5.7. It is essential that the following phasing is followed if trees are to be effectively protected throughout construction.

1	Tree removals
2	Installation of protection barriers & ground protection
3	Pre-start tree protection audit/meeting
4	Demolition & site clearance phase
5	Demolition of garage in RPAs: under arboricultural supervision
6	Demolition of pool in RPAs: under arboricultural supervision
7	Installation of 'no-dig' style drive in RPAs: under arboricultural supervision
8	Construction Phase
9	Installation of 'no-dig' style garage floor in RPAs: under arboricultural supervision
10	Excavation for new gate in RPAs: under arboricultural supervision
11	Removal of tree protection barriers upon completion of work

Table 1: Timing of operations in relation to trees

5.9. The above has been drafted at the planning stage. Shall any of the protection measures prove incompatible with elements of the build program, contact the project arboriculturist to discuss options.

Pre-start Audit/Meeting

5.10. The most important step in the tree protection process: a meeting with the project arboriculturist and the site manager shall be undertaken to review the measures before any main construction work starts on site. Usually included as a specific item in any planning conditions.

5.11. It is an opportunity to discuss any conflicts with the approved AMS and to seek changes if necessary.

5.12. An auditable record is to be kept on file and forwarded to the LPA if required.

Construction Exclusion Zone (CEZ)

5.13. The CEZ is a root-sensitive area where construction activities are to be excluded. The default method of doing so is through the installation of tree protection barriers. If construction access is required in the CEZ then ground protection can be used to facilitate this.

5.14. Everyone engaged in the construction process is responsible for respecting the tree protection measures and observing the necessary precautions within and adjacent to them.

5.15. Inside the exclusion zone, the following shall apply:

- No mechanical excavation whatsoever;
- No excavation by any other means without arboricultural site supervision;
- No hand digging without a written method statement having first been approved by the project arboriculturist;
- No lowering of levels for any purpose (except removal of grass sward using hand tools);
- No storage of plant or materials;
- No storage or handling of any chemical including cement washings;
- No vehicular access (unless ground protection is installed);
- No fire lighting.

5.16. In addition to the above, further precautions are necessary adjacent to trees:

- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builder's sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees;
- No fire shall be lit such that flames come within 5m of tree foliage.

5.17. Variations from the above may be specified in the following sections of this method statement. This is only acceptable where detailed and will typically be subject to supervision by the arboriculturist.

Protection Barriers

- 5.18. Barriers must be fit to exclude construction activity and appropriate to the degree and proximity of work around the retained tree(s). Barriers shall be maintained to ensure that they remain rigid and complete.
- 5.19. See Appendix i for barrier specifications.
- 5.20. On this project, types TPF 2 or TPF 3 are to be used.

Ground Protection

- 5.21. If required to facilitate access within the CEZ (or as shown on the appended tree protection plan), ground protection is to be installed. If not already included on the tree protection plan, it must be approved in writing by the local planning authority before implementation. The ground protection must be capable of supporting the expected loads and avoiding rutting, compaction and damage to the soil: as advised in section 6.2.3 of the British Standard.



GP1: Tree protection barriers and scaffold ground protection



GP2: Tree protection barriers & trackmat ground protection

5.22. Stages of ground protection installation:

1. If required, dismantle barriers and re-erect them to protect any newly exposed CEZ not to be covered by ground protection;
2. Any shrubs, saplings or trees to be removed, are to be cut or ground out to just below ground level rather than grubbed or winched out, which can damage the roots of retained trees;
3. Lay woven geotextile over the existing ground surface by hand;
4. Cover the area with a compressible layer (200mm of woodchip, for example), using hand tools only;

5. Cover compressible layer with side butting scaffold boards, plywood boards of proprietary trackway/trackmats;
6. Confirm surface is acceptable for use with the project arboriculturist;
7. Area ready for construction access;
8. Any scaffolding required within the area will be erected with the uprights placed on spreader boards;
9. The boarding will be left in place until the construction works are finished.

5.23. A single thickness of boarding laid on the soil surface will provide sufficient protection for pedestrian loads. However, for wheeled or tracked construction traffic movements within the RPA, ground protection will involve the use of temporary geocell/cellular confinement systems, reinforced concrete slabs or track-board systems details of which are to be specified by the project engineer and approved for use by the project arboriculturist and local authority before construction commences.

5.24. Track-boards can be sourced from Trakmats, 0800 622 6838, www.trakmats.co.uk, or GroundGuards, 0113 209 3685, www.ground-guards.co.uk.

5.25. There is to be no excavation within the ground protection area whatsoever. This includes the installation of services and associated utilities, without prior approval.

Site Induction

5.26. All site staff are to be briefed on the tree protection strategy for the site as part of the general site induction procedure. This can be carried out by the site manager once he has been briefed by the project arboriculturist.

5.27. In general, this will include the following:

1. Explanation of the purpose of the tree protection barriers and any ground protection
2. Explanation of the demolition procedures near trees
3. Explanation of the sensitive/supervised excavation areas
4. What to do if access is needed within a protected area for any reason
5. What to do if damage occurs to any tree protection barriers and how to contact the project arboriculturist if necessary.

Tree Surgery

5.28. Should any pruning work be required, the following must be adhered to once any requisite permissions are obtained.

- 5.29. All work will be carried out under BS3998³ industry best practice and in line with any works already agreed upon with the council.
- 5.30. The statutory protection^{4 5} will be adhered to. If further advice is required, particularly if bats are discovered during tree work, it will be obtained from Natural England or other competent persons and recommendations adhered to.
- 5.31. The stumps of any trees removed from within the Construction Exclusion Zone or the RPAs of retained trees will be either cut flush to ground level and left in situ or ground out using a stump grinder. They will not be winched out.
- 5.32. All operations shall be carefully carried out to avoid damage to the trees being treated or neighbouring trees. No trees to be retained shall be used for anchorage or winching purposes.

SPA 1: No-dig Garage Construction

- 5.33. The structure is to be built above ground. The only invasive work will be the installation of the supporting mini-piles or the retention of the old garage slab and the new floor being cantilevered over the RPA.
- 5.34. Detailed designs for this are unavailable at this stage and will, therefore, need to be submitted under a planning condition, subject to arboricultural approval and sign-off.

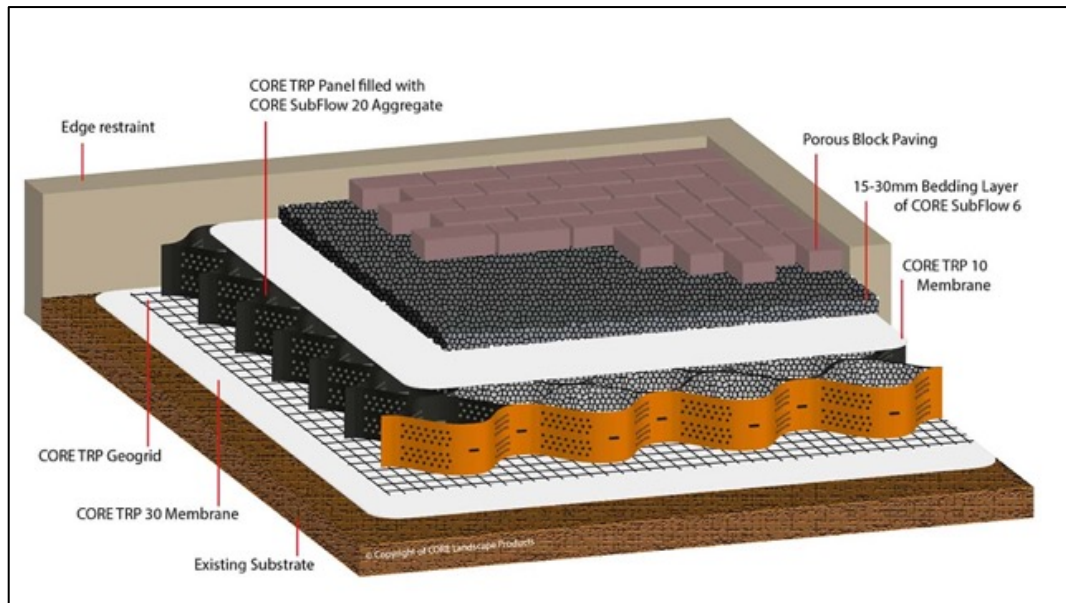
SPA 2: Installation of 'No-Dig' Geocell Surface

- 5.35. To ensure that tree roots, within the ground under this proposed surface, continue to survive during and after construction, a geocell/cellular confinement system (CCS) is proposed. The following is a guide to installation, not an engineering specification. It is critical that an engineer design this surface to ensure long-term durability.
- 5.36. Stages for Installation of the cellular confinement surface:
1. Contact project arboriculturist to hold pre-start site meeting, a 'toolbox' talk before starting work and provide supervision throughout the process;
 2. Remove existing grass sward to 50mm with hand tools or turf stripper only;
 3. Agreed removal of shrubs, saplings or trees, within the protected areas of retained trees are to be cut or ground out to just below ground level rather than grubbed or winched out, which can damage the roots of retained trees;
 4. Retain all original ground levels after vegetation removal. No further excavation whatsoever within RPAs;

³ BS3998:2010- *Recommendations for Tree Work*. London: British Standards Institute

⁴ *Wildlife and Countryside Act*. (1981) London: HMSO.

⁵ *Conservation of Habitats and Species Regulations (2017)* London: HMSO.



ND1: CORE Tree Root Protection © Porous block paving

5. Remove any existing hard surfaces (paving, tarmac etc.) Hand tools shall be used if possible. If machinery is required for this operation, it must be used only on existing surfaces or outside the protected areas and tree canopies (approval from the project arboriculturist must be sought before using machinery). The sub-base of existing surfaces or foundations shall be left in situ where possible to avoid unnecessary root disturbance and provide a base for the new surface;
6. Install a non-woven geotextile (such as Root-tex 30) directly over soil grade level (levelled where necessary, by non-compacted washed sand) and fix in place;
7. Lay the cellular system over the geotextile, which is secured open under tension during the infill process with steel staples or wooden pegs;
8. Install kerbs and edgings directly on top of the existing soil grade level. For light structures, a treated peg and board may be acceptable. For more substantial structures, railway sleepers, haunched concrete with road pins, drilled kerbstones, gabions or cast in situ kerbs will be appropriate;
9. Fill the cellular system ensuring any machinery works only on already filled areas. Typical infill consists of no fines angular granular material 20-40mm, which will remain uncompacted;
10. If required, cover with a non-woven geotextile (Root-tex 30 or similar).
11. Install porous wearing surface.

5.37. Any variation to the above specification must meet the following design criteria for low-invasive surfaces to provide the conditions for continued tree survival and growth:

- Maintain oxygen diffusion through the new surface to the rooting area (5-12% by volume)

- Maintain sufficient passage of water to the rooting area (12-40% by volume)
- Avoid compaction by maintaining a soil structure sufficient to sustain root growth (soil bulk density below 1.4g/cc).

5.38. Site analysis of the soil type and its structural characteristics will be required before determining the specific depth of products to be adopted, for example, footpaths normally require a depth of 75mm and, 100mm to 200mm depths are used for residential driveways, while greater depths may be required for the passage of heavier traffic such as for construction access and delivery vehicles.

5.39. If ground levels are to be raised more than 150mm this shall be achieved by the use of a granular material, which does not inhibit vertical gaseous diffusion. For example, no-fines gravel, washed aggregate, structural soil (min. 20% sand content) or cobbles.

5.40. See <https://www.corelp.co.uk/core-tree-root-protection/> and <https://www.geosyn.co.uk/product/cellweb-tree-root-protection> for more information.

SPA 3: Demolition of Pool Paving

5.41. All barriers and/or ground protection are to be installed as per the approved Tree Protection Plan before commencement on site.

5.42. Sensitive demolition must only occur under supervision from the project arboriculturist

5.43. Stages of demolition within tree protection areas:

1. No plant machinery is to be sited on any exposed rooting area or soft ground;
2. The paving around the pool is to be broken up with a hand-held breaker and pieces removed by hand. The slabs can be lifted carefully by machinery if appropriate;
3. Underlying ground levels are to be retained. No excavation is to occur;
4. Any exposed roots and surrounding newly exposed areas are to be covered with up to 100mm of topsoil, from elsewhere on site, or imported topsoil to BS3882. Soil may be placed in an area by plant but must be spread by hand;
5. Tree protection barriers are to be erected in the final position to protect any newly exposed soft ground (as advised by supervising arborist).

SPA 4: Gatepost Installation in RPA

5.44. Stages for installing posts:

No plant machinery is to be used in the area for whatever reason

1. Remove TPF to allow access to the area. If working inside the tree's RPA, ground protection boarding must be used to avoid compaction and contamination of the root zone.

2. Dig postholes using hand tools, avoiding damage to the protective bark covering larger roots. Roots smaller than 25mm in diameter may be pruned back using either secateurs or a hand saw, leaving a clean cut.
3. Damage or severance of roots above 25mm diameter must be avoided. If roots of this size are discovered, the hole shall be relocated. If there are a large number of such roots it may be necessary to relocate the hole by half a fence panels length and adjust the fence panels accordingly.
4. Line holes with non-porous lining, for example, a durable polyethene bag.
5. Insert post and fill post-hole with concrete to just below ground level.
6. Trim polyethene to ground level.
7. Reinstall TPF as approved.

Installation of Underground Services

- 5.45. Mechanical trenching for the installation of underground apparatus and drainage severs any roots present and can change the local soil hydrology in a way that adversely affects the health of the tree. For this reason, particular care must be taken in the routeing and methods of installation of all underground apparatus. Wherever possible, apparatus must be routed outside RPAs. Where this is not possible, it is preferable to keep the apparatus together in common ducts. Inspection chambers shall be sited outside the RPA.
- 5.46. Where underground apparatus is to pass within the RPA, detailed plans showing the proposed routeing must be drawn up in conjunction with the project arboriculturist. In such cases, trenchless insertion methods shall be used: Microtunnelling, Surface-launched directional drilling, Pipe ramming or Impact moling (see BS5837:2012 Table 3), with entry and retrieval pits being sited outside the RPA. Provided that roots can be retained and protected, excavation using hand-held tools might be acceptable for shallow service runs. If this is the case, the following methodology must be followed:
- 5.47. Stages for installing services:
1. Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work.
 2. Remove just enough tree protection fencing to allow access to the area and facilitate trenching.
 3. Remove any surface vegetation or existing hard surfaces using hand tools.
 4. Using an air-pick excavate the trench, keeping to the minimum dimensions required.
 5. Roots occurring in clumps of 25 mm diameter and over are encountered they will be retained and kept damp by covering with hessian (re-wetted as required). If required, these shall be

severed only following consultation with an arboriculturist; as such roots might be essential to the tree's health and stability.

6. Feed in services.
7. Backfill the trench with 200-300mm depth of excavated soil, or a mixture of excavated and imported topsoil to BS3882: 2015, firming down with heels.
8. Repeat step 7 until the trench is filled.
9. Re-erect tree protection fencing as per the approved plan.

5.48. The method of excavation above, for trenching within RPAs, is using air excavation. This tool utilises compressed air to remove soil from around tree roots causing minimal damage and can be run off a typical site compressor. I can provide details of contractors supplying air excavation services if required.

5.49. Alternatively, trenchless technology, such as thrust boring can be used in some instances and is particularly effective as it can pass directly under the tree, at a depth which is likely to avoid almost all impact on the roots of the subject tree. As no access/thrust pits will be located within the RPAs of the subject trees, the need for arboricultural supervision is limited.

5.50. Reference can be made to NJUG Vol 4⁶ for guidance, but any approach must be approved by the project arboriculturist and brought to the attention of the local authority tree officer.

Hard Surface Removal

5.51. Hard surfaces close to trees come in many different forms and makeups. Until removal (or trial pits) have ascertained the presence/absence of roots in the area, the final treatment of the area cannot be determined. Therefore, the initial phase of this work is somewhat exploratory.

5.52. No surface removal within RPAs will occur without arboricultural supervision.

5.53. Stages for hard surface removal within tree protection areas:

1. Contact the project arboriculturist to hold a pre-start site meeting and 'toolbox' talk before starting work and oversee the process.
2. Plant machinery to run only on existing hard surfaces with consent from an arboriculturist.
3. The plant may be used to carefully peel up existing tarmac and concrete.
4. Other surfaces are to be removed by hand (paving etc.)
5. Where any sub-base is unlikely to contain roots and only on approval from the project arboriculturist, it may also be carefully removed.
6. If the supervisor concludes that there are no significant roots in the area following the surface (and possible sub-base) removal then there is no longer a need to proceed cautiously. The

⁶ National Joint Utilities Group. (2010). Volume 4: NJUG Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) - Operatives Handbook. NJUG.

supervising arboriculturist will note their conclusions within the record of the overall works. Proceed to step 9.

7. If the supervisor concludes that significant roots are still present then the underlying ground levels are to be retained. No further excavation is to occur.
8. Any exposed roots and surrounding newly exposed areas are to be covered with up to 200mm of topsoil, from elsewhere on site, or imported topsoil to BS3882 Soil may be placed in the area by plant but must be spread by hand.
9. As deemed necessary by the supervising arborist, tree protection barriers are to be erected to protect tree stems and, if appropriate, the newly exposed soft ground. Reference the Tree Protection Plan for approved tree barrier alignments.
10. Work records are to be circulated by supervising arboriculturist and forwarded to the LPA as required.

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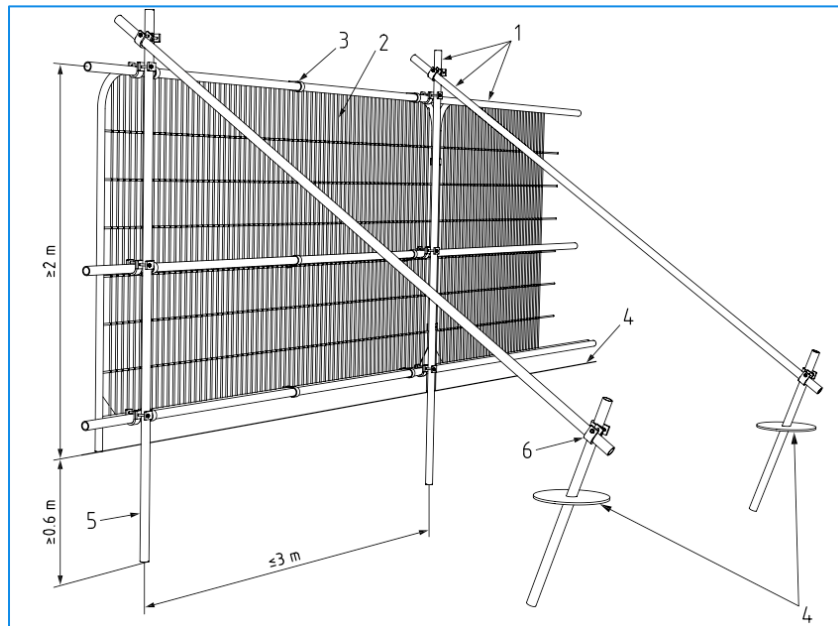
Appendix





i.

Tree Protection Barriers



1 Standard scaffold poles

2 Heavy gauge 2 m tall galvanised tube and welded mesh infill panels

3 panels secured to up rights 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

TPF1: Default specification for protective barrier (Fig 2 from BS5837:2012)



TPF 2: Alternative fencing option: scaffold uprights with backstay



TPF 3: Alternative fencing option: on boots with backstay



TPF 4: Plastic barrier for low intensity areas of construction



TPF 5: Chain-link for low intensity areas on large projects

ii.

Tree Categories Explained

BS5837:2012 Table 1 -Cascade chart for tree quality assessment			
Category and definition	Criteria (including subcategories where appropriate)		
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>		
	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)
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
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 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



iii.

Protection Plan



See the following page



TREE PROTECTION AREA

KEEP OUT!

TOWNS & COUNTRY PLANNING ACT 1990
TREES ENCLOSED BY THIS FENCE ARE PROTECTED
BY PLANNING CONDITIONS AND/OR ARE THE
SUBJECT OF A TREE PRESERVATION ORDER.
CONTINUATION OF A TREE PRESERVATION ORDER.
MAY LEAD TO CRIMINAL PROSECUTION
THIS FENCING MUST NOT BE REMOVED WITHOUT
PERMISSION FROM THE LOCAL PLANNING AUTHORITY

NOTES

This Tree Survey has been undertaken within the
recommendations of British Standard BS5837:2012 and
current arboricultural best practice.
The reference numbers of surveyed trees and
groups of trees are shown. Stem locations within
groups may be estimated, and indicative of canopy
only.
The tree survey was carried out from ground level
only, with the aid of binoculars as necessary.
Following the Visual Tree Assessment (VTA) method.
Where trees are located on neighbouring land an
estimated assessment has been made of their quality
and dimensions.
Where stems or branches are obscured by ivy or
other materials a full assessment of those parts will
not be possible.
Height dimensions are estimated and are given in
metres.
Trunkstem diameters are measured in mm at 1.5
metres above ground level, unless otherwise stated.
Where this is not possible, then Figure C1 of the
British Standard is followed.
Tree canopies are graphically represented on the
plan. They, where markedly asymmetrical, were
measured or estimated by sighting in four directions
using a laser measure. Symmetrical canopies are
measured in one direction only with dimensions in the
remaining directions assumed to be similar. For the
canopies of groups of trees the maximum radius for
each compass point is measured more complicated
groups will have further notes taken and an accurate
representation will be shown on the plan.



REV	DATE	UPDATES	DRAWN
1:200	4.0	6.0	10.0

- Tree ref
- Tree ref
- Root protection area
- Crown spread
- CEZ extent. To be protected with temporary protective barriers or ground protection to allow construction access. See insets and method statement for details.
- Ground protection within RPAs. See inset and method statement.
- Tree to be removed
- Special Protection Area (SPA). See method statement.

BS 5837:2012 Tree Quality Categories

- Category A - High quality
- Category B - Moderate quality
- Category C - Low quality
- Category U - Unsuitable for retention

Guidance on the implementation and use
of this information, along with its
limitations and more can be downloaded
here: <https://bit.ly/BS5837FA0>

Tree Protection

121 Nashgrove Lane,
Finchampstead, Berkshire,
RG40 4HG

Date: 29/07/2025

Scale: 1:200 @A1

DWG Ref: MW.2412.NLF.TPP



Base plan/site survey reference: TVG581 121 Nashgrove Lane Survey Drawings.dwg

BS5837 Tree Survey: Trees & Groups to be Retained

Ref	Species	Common Name	Height	Stem Diameter	Crown Clearance	Age Class	Observations	Tree Surgery	Est. Remaining Contribution	Date Surveyed	BS Cat	RPA Radius	RPA Area	No.
02	Eucalyptus gumii	Eucalyptus cedar gum	20m	680mm	2m	Mature	Fair overall physiological and structural condition. Off site and inaccessible. Historically reduced, now regrown.		40 Years	4/12/2024	B1	8.1m	206m²	1
03	Acer campestre	Field maple	7m	270mm	2m	Early-Mature	Fair overall physiological and structural condition. Off site and inaccessible.		40 Years	4/12/2024	C2	3.3m	34m²	1
04	Cotoneaster sp.	Cotoneaster	7m	270mm	2m	Early-Mature	Fair overall physiological and structural condition. Off site and inaccessible.		40 Years	4/12/2024	C2	3.3m	34m²	1
05	Acer campestre	Field maple	7m	200mm	2m	Early-Mature	Fair overall physiological and structural condition. Off site and inaccessible.		40 Years	4/12/2024	C2	2.4m	18m²	1
06	Chamaecyparis lawsoniana	Lawson cypress	6m	240mm		Early-Mature	Fair overall physiological and structural condition.		40 Years	4/12/2024	C1	3m	28m²	1
08	Quercus robur	Pedunculate oak	21m	920mm	3m	Mature	Good overall physiological and structural condition. Scattered dead wood		40 Years	4/12/2024	A1	11.1m	387m²	1
09	Acer negundo	Box elder maple	4m	150mm	2m	Semi-Mature	Small and inconsequential		20 Years	4/12/2024	C1	1.8m	10m²	1
10	Betula pendula	Silver birch	6m	160mm	2m	Mature	Small and inconsequential		20 Years	4/12/2024	C1	1.8m	10m²	1
11	Quercus robur	Pedunculate oak	22m	650mm	8m	Mature	Good overall physiological and structural condition. Scattered dead wood		40 Years	4/12/2024	A1	7.8m	191m²	1
12	Quercus robur	Pedunculate oak	22m	920mm	8m	Mature	Good overall physiological and structural condition.		40 Years	4/12/2024	A1	11.1m	387m²	1
14	Chamaecyparis lawsoniana	Hinoki cypress	6m	180mm	1.5m	Early-Mature	Small and inconsequential		20 Years	4/12/2024	C1	2.1m	14m²	1
15	Prunus lusitana	Portuguese laurel	7m	180mm	1.5m	Early-Mature	Small and inconsequential		20 Years	4/12/2024	C1	2.1m	14m²	1
16	Pseudotsuga menziesii	Douglas fir	10m	230mm	1.5m	Semi-Mature	Fair overall physiological and structural condition. Dwarfed by adjacent oak		40 Years	4/12/2024	C1	2.7m	23m²	1
17	Quercus robur	Pedunculate oak	22m	770mm	6m	Mature	Fair overall physiological and structural condition. Dwarfed by adjacent oak		40 Years	4/12/2024	B1	9.3m	272m²	1
18	Chamaecyparis lawsoniana	Lawson cypress	11m	210mm	2m	Early-Mature	Suppressed by and competing with adjacent oak		20 Years	4/12/2024	C1	2.4m	18m²	1
19	X Cupressus leylandii	Leyland cypress	11m	200mm, 200mm	2m	Early-Mature	Suppressed by and competing with adjacent oak		20 Years	4/12/2024	C1	3.3m	34m²	1
20	Fagus sylvatica	Common beech	9m	170mm	1m	Semi-Mature	Young tree with potential to develop. Possible conflict with adjacent off-site oaks		40 Years	4/12/2024	C1	2.1m	14m²	1
22	Crataegus monogyna	Common hawthorn	3m	230mm	1m	Mature	Small and inconsequential		10 Years	4/12/2024	C1	2.7m	23m²	1
23	Acer platanoides	Norway maple	13m	330mm	3m	Early-Mature	Fair overall physiological and structural condition.		40 Years	4/12/2024	B1	3.9m	48m²	1
24	Cryptomeria japonica	Japanese cedar	6m	140mm	1m	Early-Mature	Small		10 Years	4/12/2024	C1	1.8m	10m²	1
25	Thuja plicata	Western red cedar	6m	160mm	1m	Early-Mature	Small		10 Years	4/12/2024	C1	1.8m	10m²	1
26	Betula pendula	Silver birch	14m	400mm	5m	Mature	Off site and inaccessible. Ivy clad. Location estimated		10 Years	4/12/2024	C1	4.8m	72m²	1
27	Not identified	Not identified	5m	200mm	2m	Mature	Standing dead	Remove tree prior to development.	0 Years	4/12/2024	U	2.4m	18m²	1
28	Cryptomeria japonica	Japanese cedar	4.5m	270mm	2m	Early-Mature	Asymmetric		10 Years	4/12/2024	C1	3.3m	34m²	1
29	Fagus sylvatica	Common beech	11m	380mm	3m	Early-Mature	Becoming established amongst a group of conifers		40 Years	4/12/2024	C1	4.8m	72m²	1
30	Mixed conifer	Mixed conifer	10m	300mm	1m	Early-Mature	Group of four stems that provide some screening		20 Years	4/12/2024	C1		70.21m²	1
31	Chamaecyparis lawsoniana	Lawson cypress	11m	440mm	2m	Mature	Fair overall physiological and structural condition. Offsite and inaccessible		20 Years	4/12/2024	B1	5.4m	92m²	1
32	Quercus ilex	Holm oak	10m	170mm	2m	Early-Mature	Fair overall physiological and structural condition. Offsite and inaccessible		40 Years	4/12/2024	C1	2.1m	14m²	1
33	Populus sp.	Poplar	10m	200mm	2m	Early-Mature	Fair overall physiological and structural condition. Offsite and inaccessible		40 Years	4/12/2024	C1	2.4m	18m²	1
35	Salix caprea	Goat willow	9m	350mm	3m	Early-Mature	Offsite and inaccessible.		20 Years	4/12/2024	C1	4.2m	55m²	1
36	Fagus sylvatica	Common beech	4.5m	200mm	1m	Semi-Mature	Toppled, now regrown.		10 Years	4/12/2024	C1	2.4m	18m²	1
37	Malus sp.	Apple	4m	300mm	1m	Mature	Ivy clad		10 Years	4/12/2024	C1	3.6m	41m²	1
38	Malus sp.	Apple	4m	300mm	1m	Mature	Small		10 Years	4/12/2024	C1	3.6m	41m²	1
39	Acer sp.	Maple	7m	200mm	3m	Early-Mature	Small tree becoming established. Location estimated		20 Years	4/12/2024	C1	2.4m	18m²	1
40	Betula pendula	Silver birch	12m	320mm	2m	Mature	Fair overall physiological and structural condition.		20 Years	4/12/2024	B1	3.9m	48m²	1
41	Quercus robur	Pedunculate oak	25m	700mm	7m	Mature	Good overall physiological and structural condition.		40 Years	4/12/2024	A1	8.4m	222m²	1
42	Castanea sativa	Sweet chestnut	10m	350mm	3m	Early-Mature	Suppressed and contorted		10 Years	4/12/2024	C1	4.2m	55m²	1
43	Quercus robur	Pedunculate oak	18m	650mm	3m	Mature	Asymmetric crown somewhat sparse. Scattered dead wood		40 Years	4/12/2024	B1	7.8m	191m²	1
45	Quercus robur	Pedunculate oak	25m	600mm	9m	Mature	A pair of trees. Fair overall physiological and structural condition. Offsite and inaccessible.		40 Years	4/12/2024	B1	7.2m	326m²	2

Survey by Mark Welby (RPS), TechCert(ArborA), FARBOR
Arboricultural Association Registered Consultant
www.mwelby.com

denotes estimated dimension. Typically due to the tree being inaccessible.
Where dimensions are not listed please refer to the plan graphics for an indicative representation (typically for groups).

Trees & Groups for Removal

Ref	Species	Common Name	Height	Stem Diameter	Crown Clearance	Age Class	Observations	Est. Remaining Contribution	Date Surveyed	BS Cat	No.
01	Picea sp.	Spruce	17m	570mm	1.5m	Early-Mature	Fair overall physiological and structural condition.	40 Years	4/12/2024	B1	1
07	Malus sp.	Apple	2m	200mm	0.5m	Mature	Small with significantly decayed stem	0 Years	4/12/2024	U	1
13	Acer capillipes	Red snakebark maple	7m	180mm, 160mm	2m	Early-Mature	Small ornamental	20 Years	4/12/2024	C1	1
21	Magnolia sp.	Magnolia	3.5m	180mm, 130mm	1.5m	Early-Mature	Small ornamental. Contorted and poorly located	10 Years	4/12/2024	C1	1
34	Malus sp.	Apple	2m	300mm	1m	Mature	Recurrent. Little value	10 Years	4/12/2024	C1	1

Construction Exclusion Zone

It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

Inside the exclusion zone, the following shall apply:

- No mechanical excavation whatsoever
- No excavation by any other means without arboricultural site supervision
- No hand digging without a written method statement having first been approved by the project arboriculturist
- No lowering of levels for any purpose (except removal of grass sward using hand tools)
- No storage of plant or materials
- No storage or handling of any chemical including cement washings
- No vehicular access
- No fire lighting

In addition to the above, further precautions are necessary adjacent to trees:

- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builder's sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees
- No fire shall be lit such that flames come within 5m of tree foliage

All weather signs shall be erected at reasonable intervals on the barriers. See example inset

