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Arboricultural Impact Assessment and Method Statement

No. 25 Warren Road, Ickenham, Middx UB10 8AA

CLIENT:	**Mr Harj Tamber**
CLIENT REF:	**HT/WRIM**
AAAL REF:	**SAL/KMA/11369 REVISION B**
AAAL CONSULTANT	**Shane A. Lanigan**
REPORT DATE:	**8th December 2022**

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Validation Statement for Local Planning Authority (LPA) registration of this report

This report fulfils the recommended national list criteria for tree survey/arboricultural information. More specifically, it contains the following.

- A full tree survey compliant to the requirements of BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations, undertaken by a qualified arboriculturist.

- A plan to a suitable scale with a north point and showing tree survey information, retention categorisation and root protection areas.

- An assessment of the arboricultural implications of development detailing trees to be retained/removed and appropriate protection measures.

- An arboricultural method statement detailing the means of tree protection, implementation, and phasing of works.

SUMMARY

This development proposal is to demolish the existing dwelling house and construct a replacement. The new house will be essentially on the footprint of the former dwelling, though will be narrower and extend a little more northwards into the rear garden area. It will not encroach significantly into the calculated Root Protection Area (RPA) of any retained trees. Warren Road has the benefit of some significantly-sized evergreen trees planted either side of the roadway. Some are growing on the roadside verges whilst others have been planted within the property curtilages. As a cohort of evergreen species, they present as an attractive and cohesive arboricultural feature. Two of these are located close to the development area: one (T1) is growing in the front garden area of No. 25 whilst the second (T3) is located east of the property boundary within the curtilage of No. 27. These two trees will impose some constraints – which will be addressed within the Arboricultural Method Statement (AMS) - on the construction ancillary activities. The new dwelling house will extend into a very small area of the calculated RPA of T3 – less than 5% - and be quite close to the outer periphery of that of T1. Harm to both trees can be prevented by use of ground protection measures and special construction methods. Tree protection barriers will be installed to prevent vehicle/plant impacts and concomitant mechanical damage. They will also serve to exclude vehicles, plant and construction personnel from these areas and so remove the possibility of ground compaction which is harmful to tree roots. Other trees located nearby and in the rear garden are considerably smaller and development activity should not intrude into their calculated Root Protection Areas (RPAs). Nonetheless, tree protection will be specified within this report to prevent construction personnel entering the areas or associated activity taking place within their delineated perimeters.

S.A. Lanigan – Chartered Arboriculturist
MICFor, Dip.Arb.(RFS), M.Arbor A, RCArborA – ISA, BCMA, CUEW,
ASCA Registered Consulting Arborist #588

Reference publications are listed at the back of this report (Appendix 4)

1. Introduction

1.1 **Instruction**: I am instructed by Mr Harj Tamber to prepare an Arboricultural Impact Assessment and associated Method Statement for this site. Both will be driven by a full tree survey of the trees that might be affected by the works. Data collected during the tree survey will lead to the creation of a Tree Constraints Plan and subsequently a Tree Protection Plan. The report will be suitable for inclusion with the planning application. I will provide the following information and associated data within my report which will accompany the planning application.

- A schedule of trees to include basic data as required by BS 5837: (2012) complete with a condition assessment.
- An arboricultural impact assessment in respect of the impact on retained trees and local landscape character.
- An arboricultural method statement pertaining to working methods and the protection and management of retained trees.

1.2 This report is a revision of that which I prepared earlier this year. That report is dated 12th May 2020 referenced as SAL/KMA/11113a – Revision. Following submission of the initial application the building design has been revised and reduced in size. It will no longer extend significantly toward the tree group in the rear northwest site corner and will be on almost the same location as the previous design to the front (south).

1.3 The arboricultural issues in relation to this site are highlighted below with accompanying recommendations provided in Appendix 1 – Tree Survey Schedule.

1.4 **Documents provided**: A topography plan showing the existing house and garden areas of No. 25 Warren Road. The plan was prepared by Mike Worby - Survey Consultancy Limited - and has been used as the base for my Tree Constraints Plan and Tree Protection Plan. The design plan for the revised building was prepared by GAA Designs and is referenced as Document No. 22009-GAA-22-00-DR-T-0102. It includes the updated house design and is seemingly based on the original topographical plan prepared by the Mike Worby Consultancy. I have transferred the building design onto the plans used in my original survey as these show the tree positions accurately.

1.5 **Ecological Constraints**: Impacts on wildlife must be considered prior to and during the proposed construction works. Such matters are governed by various pieces of primary legislation, specifically:

- The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000 and other more recent amendments, and the European Protected Species legislation. These regulations provide statutory protection for birds, bats and other tree and woodland dwelling creatures. The presence of protected species could impose constraints upon the timing and implementation of the site works. Consultation with an appropriately qualified ecologist must be undertaken should this be deemed necessary.

1.6 **Statutory Tree Protection**: I have contacted the Local Planning Authority which in this instance is the London Borough of Hillingdon to ascertain the existence, or otherwise of any Tree Preservation Orders which may be applied to this site, or whether the site falls within a designated conservation area. The local authority's web site shows that the trees identified in this report are located within Tree Preservation Order Area No. TPO 793 (25 and land at rear of 27 Warren Road, Ickenham) 25/01/2022 but the site does not appear to lie within a designated conservation area (see Appendix 3 'A Brief Explanation of Tree Preservation Orders/Conservation Areas' at the back of this report). The status of the tree preservation order and conservation area legislation is only confirmed at the time of writing.

1.7 **Qualifications and professional experience**: This report is based on my site inspection and assessment of the existing trees. I hold formal qualifications in arboriculture and have the benefit of fifty years professional experience in this discipline. A summary of these matters is enclosed as Appendix 2.

1.8 **Background Information**: No. 25 Warren Road is within a residential area located southwest of Ickenham village centre. The existing dwelling house is aged and significantly dilapidated. Repair and updating would be difficult and prohibitively expensive. Due to this, the property owners consider it expedient to demolish the structure and replace it with a new updated building that is compliant with new building regulations particularly in respect of energy requirements. The initial application was refused due to the proposed building being considered too large. A new design has now been prepared with a smaller building footprint.

1.9 **Soils**: I accessed the online application of the British Geological Survey to gain insight into the type of soil present here. The app showed that the soil depth was Deep with a texture of Clayey Loam, to Silty Loam, the parent material from which this has evolved by the 'weathering process' is described as Prequaternary Marine/Estuarine Sand and Silt. The app is generally a good guide to soil type within a general area but is not site-specific. Site soil testing by way of trial pits, boreholes, and technical analysis is the recognized way to obtain truly accurate site-specific results.

2. Arboricultural Impact Assessment

2.1 **Summary of the impact on existing trees**: Development of sites, particularly those with existing tree cover can impact upon the trees both by the direct effect of tree loss and by indirect effects caused by root loss or damage, or alterations to the site topography and hydrology. Such impacts can lead to loss of visual amenity due to tree removals or significant pruning. These losses can also impact upon the cultural and ecological values of the area by way of disruption to wildlife habitat. I have summarised the impact of this proposal on trees in Table 1. This site is identified as No. 25 The Warren, Ickenham UB10 8AA – Grid Reference: TQ 065856 - and is at an elevation of 52 m.

TABLE 1

IMPACT	REASON	A	B	C	U
Trees to be removed: Three T4 – Laburnum T5 – Cherry laurel T15 – Lawson cypress	 Poor quality Poor quality Dead	**0**	**0**	**0**	**3**
Retained trees that may be affected by disturbance to their calculated root protection areas. Two trees may be affected by works within their calculated RPA's: T1 – Wellingtonia T3 – Wellingtonia	 Some demolition and construction works will take place close to the north-northeastern sector of the calculated RPA. Some demolition and construction works will take place within the west-northwestern sector of the calculated RPA.	**2**	**0**	**0**	**0**
Retained trees to be pruned: None		**0**	**0**	**0**	**0**

2.2 **Detailed Impact Appraisal**

2.2.1 **Category A trees that may be affected by way of RPA disturbance**:
Two category A trees may be affected by RPA disturbance on this site. They are specifically, T1 & T3 (Wellingtonia) (see photographs 1 & 2, Appendix 1 at the back of this report). Both trees are located such that minor distal sections of their calculated RPA's fall within, or very close to the footprint of the existing house and, in combination cover the entire front garden area. It seems likely that the trees post-date construction of the dwelling house which indicates that tree roots are unlikely to be present beneath the existing building footprint. Roots will however, be growing over much of the front garden area and so areas that are not hard-surfaced will need to be protected. Thus, storage of building materials, plant/materials and ancillary activities will be restricted to areas of existing hard-surfacing, including the contemporary driveway, the footprint of the existing building (when demolished), and an area within the rear garden that is outside the calculated RPAs of retained trees.

2.2.2 **Category B trees that may be affected by way of RPA disturbance**:
No category B trees are located on this site.

2.2.3 **Category C trees to be removed**:
No category C trees are to be removed on this site.

2.2.4 **Category C trees that may be affected by way of RPA disturbance**:
No category C trees are likely to be affected by RPA disturbance on this site.

2.2.5 **Category U trees to be removed**:
Three trees are scheduled for removal on this site. Tree 4 (laburnum) and T5 (laurel) are to be removed because they are poor quality trees with very limited useful expectancy while T15 (Lawson cypress) is dead.

2.3 **Mitigation of construction impacts**

2.3.1 **Protection of retained trees**: It is important that trees scheduled for retention are protected against damage caused by construction work. Such damage can be caused by physical operations, particularly excavation works. Other means of damage are by way of ground compaction or discharge of toxic or other prejudicial materials. An effective means of tree protection is by way of protective barriers (see Appendix 9), and ground cover to guard against compaction. An arboricultural method statement is an effective means of ensuring tree protection and can be referred to in a planning condition. Such a method statement for this site is set out in Section 3.

2.3.2 **New Planting**: Extensive landscaping will be undertaken upon completion of the development. Trees will be planted along the rear (northern) boundary to provide screening (see photographs 5, 6 & 7, Appendix 1 at the back of this report). The eventual tree cover will provide significantly more amenity, visually, ecologically, and culturally, than that conferred by the two very poor live trees (T4 & T5) scheduled for removal.

2.3.3 **Summary of the impact on local landscape character:** The two small trees to be removed are poor quality and provide no. useful visual amenity. Their loss will not be apparent from outside the site and more than ample mitigation will be provided by new planting over much of the garden areas.

3. Arboricultural Method Statement

3.1 **Introduction:** The arboricultural impact appraisal in Section 2 outlined the impact of the development proposals on the existing trees and how that may affect local landscape character. This section is an arboricultural method statement which identifies necessary tree protection details and associated management needs that will serve to protect the trees and enable their successful retention. In order to prepare effective proposals for both physical tree protection and associated management and supervision I have prepared two plans to assist in tree protection provision and necessary management. The first plan is a tree constraints plan detailing the tree categories, crown spread, and calculated root protection area (Appendix 7). The second is a tree protection plan showing the location of tree protection barriers and storage areas (Appendix 8). Primary reference material has been:

BS 5837:2012- Trees in relation to design, demolition and construction – Recommendations.
Hillier's Manual of Trees and Shrubs
National Joint Utilities Group Volume ,4 Issue 2.

3.2 **Plan TPP SAL/HT/WRIM/11369**: The tree protection plan (TPP) which is included as Appendix 8 is illustrative only and may exclude various on-site features. I have prepared the plans myself using scaled measurements from the plans provided by Mike Worby Survey Consultancy Limited. I have prepared my plans specifically to address potential tree/construction process issues. My measurements are as accurate as possible but as an aid to quality control I advise that all scaled measurements be checked against the submitted documents. The precise location of all tree protection measures including barriers and ground protection should be confirmed at the pre-commencement site meeting before any significant demolition or construction activity begins. Methods for working within tree RPAs are detailed in section 3.4 and the placement of tree protection barriers is specified in 3.2.1 while also being shown on the tree protection plan (see Tree Protection Plan, Appendix 8).

3.2.1 **Tree Protection Barriers**: On this site tree protection barriers shall be placed to the north-northeast of T1. They will protect as much of the calculated RPA as possible and restrict construction activity to areas of existing hard-standing and those that are within 3 m of the front, southern, elevation of the existing house. Special construction methods, including micro-piling, will be specified in the zone beyond the barriers where construction activity will take place. Ground protection will be provided to avoid compaction damage. Additional barriers will be placed in the rear garden to prevent site personnel entering the RPA's of retained trees in this area.

3.2.2 Trees growing within and near to the site that may be affected by construction activity are shown on the plans (see TCP & TPP - Appendices 7 & 8). These are numbered and coloured in accordance with BS 5837:2012 Trees in relation to design, demolition and construction Recommendations (p19, 20, 21, & 22). The colours denote the BS: 5837 categorisations as follows:

A - green
B - blue
C - grey
U - red

3.2.3 All plant, machinery and materials will be stored either on the existing concrete driveway or the designated storage area within the rear garden area. The driveway is hard-surfaced and so will not be subject to compaction.

3.2.4 Where special construction methods are specified, any digging operations shall be by hand only. Any initial digging shall be accomplished by means of small hand-held tools to a depth of 600 mm below grade in order to establish the location of any roots >10 mm diameter. These shall be carefully pruned back as minimally as possible with sharp secateurs. Larger roots shall be similarly pruned with sharp handsaws as needed. Arisings from the works will be removed southwards over appropriate ground protection to the existing driveway and then Warren Road.

3.2.5 In areas where special construction methods are to be used ground protection will also be employed. The ground protection will be provided by 19 mm thick shuttering grade plywood which will be retained in place other than when direct construction activity is taking place. Their purpose is primarily to prevent ground compaction which will harm tree roots. In the areas where special construction methods are specified no machinery heavier than 1.5 tonnes will be permitted to work. Any heavier machinery, plant or vehicles shall remain only on the existing hard-landscaping driveway. This area is defined by the green diagonal marking on the Tree Protection Plan (TPP). Vehicles will need to reverse into the driveway to avoid unnecessary turning and manoeuvering within the site.

3.3 **Design of the Barriers:** Any barriers will be installed in compliance with the requirements of BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations (p19, 20, 21 & 22) (see Appendix 9).

3.3.1 **Other construction methods:** It is not only direct protection of the tree RPAs that is needed. Other construction activities that may impact adversely upon trees include:

- movement of plant and machinery;
- storage of materials;
- the location of site huts and welfare facilities; and the mixing of mortar and concrete with associated 'washout-residues'.

Any mixing of concrete and storage of materials and plant shall be confined to the areas that are marked with green hatching on the tree protection plan (see TPP Appendix 8).

3.4 **Methodology for working in RPA's:** On this site access will be by way of the existing driveway. Areas that are within the calculated RPA's of T1 and T3 and that also fall within the areas specified for special construction methods will be protected by 19 mm shuttering grade plywood to prevent collateral damage due to demolition/construction works. The micro-piling rig will additionally operate from a 'piling mat' placed on top of the plywood, which may be adjusted to enable the piling works. No heavy equipment will be used within the tree RPA's other than a micro-digger and the piling rig. Arisings from these works will be removed as they are excavated by means of powered or hand wheelbarrows southwards over the building footprint and existing driveway.

3.5 **Site works that may impact upon retained trees**

3.5.1 **Tree work recommendations:** Two trees may be affected by works within their calculated RPA. They will be protected by special construction methods and tree protection barriers. No pruning of aerial tree parts will be necessary but some minor root pruning will probably be needed. Any roots to be pruned shall be cut back from the immediate working area as minimally as possible using appropriate sharp secateurs or hand saws for larger diameter (>10 mm) roots.

3.5.2 **Site access**: Site ingress and egress shall take place solely over the existing driveway. All vehicles will need to reverse into the driveway and respect the protected area to the left (west) side.

3.5.3 **Site huts, welfare facilities, toxic run off**: Site huts, welfare facilities and activities that may generate toxic run-off will be sited within the areas marked with green hatching on the Tree Protection Plan.

3.5.4 **Services:** I presume that existing service connections for gas, water, electricity, and foul water drains will be used. Therefore, no new trenching works will be needed.

3.6 **Programme of Works**

3.6.1 Works should be undertaken in such a way that minimises adverse effects to the retained trees. The following methodology shall be employed:

i) Remove trees T4, T5, T15 and stump (S1).
ii) Erect tree protection barriers and install ground protection as detailed on the Tree Protection Plan.
iii) Demolish the existing dwelling house using 'top down, sides in' methods to avoid incursion into the RPA's of T1 and T3, remove arisings from these works over the existing concrete driveway.
iv) Install micro-piled foundations within the areas of the existing building footprint that are within the calculated RPA's of T1 and T2.
v) Install foundations outside the calculated RPA's, ensure that all plant, machinery, and arisings from the works are moved over ground protection onto the existing driveway.
vi) Erect the building superstructure.
vii) Implement the site landscaping plan, this will need to employ 'soft-landscaping' only within the calculated RPA's.
viii) Remove tree protection barriers and remaining ground protection.

4. Key to Tree Survey Data

4.1 **Tree No**: Tree numbers correlate with those shown on the Tree Survey Plan. Most trees are shown as individuals though some are identified as groups in which case the prefix is G rather than T.

4.2 **Species**: These are identified within the tree schedule by their common name – e.g., Lime rather than *Tilia x europea* - Scientific nomenclature is listed below.

- Cherry : *Prunus spp* L.
- Cherry laurel: *Prunus laurocerasus* L.
- Golden chain tree: *Laburnum anagyroides* Medik
- Honey locust: *Gleditsia triacanthos* L.
- Lawson cypress: *Chamaecyparis lawsoniana* (A. Murray bis) Parl.
- Leyland cypress: x *Cuprocyparis leylandii* (A.B.Jacks.& Dallim) Farjon
- Oak: *Quercus robur* L.
- Wellingtonia: *Sequoiadendron giganteum* (Lindl.) J. Bucholz

4.3 **Age Class**: An assessment of the relative life stages of the tree where Y = young (first one third of life expectancy), MA = middle aged (second one third of life expectancy), M = mature (final one third of life expectancy, OM = over mature (beyond life expectancy and declining naturally) and V = veteran (of great age for its species and possibly of high conservation value).

4.4 **Height (estimated) (m)**: The height of the tree is measured or estimated to the nearest metre

4.5 **Crown base**: Height above ground level of the lowest section of true crown (not epicormic and sucker growth).

4.6 **Stems**: This column classifies trees as either single, or multi-stemmed. Any tree That has more than one stem arising below 1.5m above ground level is classified as multi- stemmed. Designations are either S = single or M = multi.

4.7 **Crown spread, (estimated in metres) NSEW**: Generally estimated by pacing and given as the spread at the four cardinal compass points. If trees are located outside the site only the side which overhangs the working area is measured.

4.8 **Diameter @ 1.5m above ground level (mm)**: Measured at 1.5m above ground level for single stemmed trees, if this is not possible the measurement height is stated. If the trees are off site or inaccessible then an estimated measurement is provided. When trees are multi-stemmed the measurement is taken in line with the requirements of BS 5837.

4.9 **Conditions & Observations**: Basic condition assessments are made in line with the BS 5837: classifications. Whilst this is not a tree condition survey in the fullest sense the presence of any significant growth defects, hazardous conditions or visible signs of disease will be noted.

4.10 **Preliminary Management Recommendations**: These are intended to identify necessary remedial works for trees in their current context. They are not designed to facilitate development, nor are they intended to be a schedule of work needed prior to development. Certain recommendations may require further and more advanced survey and inspection work with use of tree decay detection devices and /or climbing inspections.

4.11 **Retention span**: These are assessed in line with the BS 5837 classification.

4.12 **Grade**: Classification according to BS 5837, 2012 specifically.

4.12.1 U-Trees that are in poor condition and with a useful life expectancy of less than 10 years. In their current context these trees would require removal within ten years in accordance with sound arboricultural management especially where there are implications relating to safety and disease management. U trees are marked in red on the survey plan.

4.12.2 A- Only the very best trees with minimal defects and capable of remaining a significant arboricultural asset for at least 40 years will qualify in this category. These trees are marked on the plan as light green.

4.12.3 B-This category of trees are of lower value than A trees and may have significant though remedial defects. They must be capable of remaining as a useful site asset for a minimum of 20 years and are marked as blue on the tree survey plan.

4.12.4 C-These are trees of low value with no particular merit which should not normally be a significant constraint to development. They should, in most cases, be able to provide a contribution to site amenity for 10 years or more. Trees less than 150mm diameter are also described as C category. These are marked on the plan as grey.

4.12.5 All the categorised trees can be allocated sub categories e.g., sub category 1 refers to significant arboricultural value, sub category 2 to landscape values and sub category 3 is concerned with cultural or conservation values. Whilst it could be considered that 'C' trees have no value and should not be allocated sub categories site owners or future owners may wish to retain these trees and the sub categorisation could therefore provide useful information.

4.12.6 All sub categories carry equal weight so that no category is more important than another. Trees can be allocated more than one category if this is deemed appropriate.

5. Assumptions and Limiting Conditions

5.1 Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

5.2 Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible, however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.

5.3 The consultant/appraiser shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

5.4 Loss or alteration of any part of this report invalidates the entire report.

5.5 Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to who, it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.

5.6 Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initialled designation conferred upon the consultant/appraiser as stated in his qualification.

5.7 This report and values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

5.8 Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.

5.9 Unless expressed otherwise, (1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and (2) the inspection was by means of visual examination of accessible items.

6. Certification of Performance

I, Shane A. Lanigan, certify that:

6.1 I have personally inspected the trees and the property referred to in this report and have stated my findings accurately. The extent of the evaluation or appraisal is stated in the attached report and the Terms of Assignment.

6.2 I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.

6.3 The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and facts.

6.4 My analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.

6.5 No one provided significant professional assistance to me, except as indicated within the report.

6.6 My compensation is not contingent upon the reporting of a predetermined conclusion that favours the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

6.7 I further certify that I am a Chartered Arboriculturist being a professional member of the Institute of Chartered Foresters and a Registered Consultant of that professional body. I am a Registered Consultant of the Arboricultural Association, and a Registered Consulting Arborist (#588) of the American Society of Consulting Arborists. I am also an ISA Board-Certified Master Arborist and hold the Royal Forestry Society Professional Diploma in Arboriculture. In matters of tree inspection, I hold the International Society of Arboriculture 'Tree Risk Assessment Qualification' (TRAQ) and have completed the LANTRA Professional Tree Inspection Module with integrated assessment and update training. I have worked full time in the field of Arboriculture for a period of fifty years.

S.A. Lanigan – Chartered Arboriculturist
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APPENDIX 1 - TREE SURVEY SCHEDULE

Tree Ref No.	Species	Height(m)	Stem Diameter (mm) Root Protection Area (m2*)* Radius of Root Protection Area	Crown base (lowest significant point above ground) (m)	Branch Spread (m)	Age Class	Physiological/ Structural Condition	Comments * Preliminary Management Recommendations	Estimated Remaining Useful Contribution (years)	Category Grading
T1	Wellingtonia	28.6	1400 mm 886.68 m^2 16.80 m (capped at 15 m radius and 707 m^2 RPA)	5.0 E	N = 5.0 E = 3.0 S = 5.0 W = 4.0	M	Good/Good	Twin-leadered from around 14 m above ground level, some deadwood, and minor split branches in crown. *None	40+	A1
T2	Honey locust	11	280 mm 35.46 m^2 3.36 m	4.0 SE	N = 4.0 E = 6.0 S = 3.0 W = 2.0	M	Good/Good	Suppressed by T1 and so grows favourably northeastwards, minor broken branches on north side at 5.5 m above ground level. *Prune out broken branches over pathway	40+	A1
T3	Wellingtonia	29.5	1330 mm 800.23 m^2 15.96 m (capped at 15 m radius and 707 m^2 RPA)	6.0 E	N = 3.0 E = 3.0 S = 4.0 W = 3.0	M	Good/Good	Some deadwood visible in crown. *None	40+	**A1**

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S1	Cherry stump	26.1	210 mm N/A		N = 0 E = 0 S = 0 W =.0	M	Unknown/Poor	Stump of a cherry tree affected by Ganoderma fungus (*Ganoderma* spp) and significantly structurally compromised. *Remove	NONE	**U**
T4	Laburnum	4	110 mm 5.47 m^2 1.32 m	0.8 NW	N = 0.3 E = 0.3 S = 0.5 W = 0.3	M	Poor/Poor	Poor tree of low vitality. *Remove	NONE	**U**
T5	Cherry laurel	2	150 mm 10.18 m^2 1.80 m	0.2 NW	N = 1.0 E = 0.5 S = 1.0 W = 0	M	Poor/Poor	Affected by silver leaf disease (*Chondrostereum purpureum* (Pers.) Pouzar (1959). *Remove	NONE	**U**
T6	Oak	13.9	320 mm 46.32 m^2 3.84 m	6.0 NW	N = 3.0 E = 5.0 S = 4.0 W = 3.0	M	Good/Good	Likely self-seeded tree of reasonable form, growing favourably southeastwards. *None	40+	A1

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T7	Oak	12	260 mm (est) 30.58 m^2 3.12 m	3.0 SE	N = 3.0 E = 5.0 S = 6.0 W = 5.0	M	Good/Fair	Likely self-seeded tree of reasonable form, growing favourably southeastwards. *None	40+	A1
T8	Lawson cypress	14.2	290 mm 38.05 m^2 3.48 m	4.0 E	N = 5.0 E = 2.0 S = 1.5 W = 2.0	M	Fair/Fair	Previously 'topped' tree, now regrown with three primary leaders. *None	20+	C1
T9	Lawson cypress	13.2	190 mm 16.33 m^2 2.28 m	0.3 E	N = 0.5 E = 3.0 S = 1.5 W = 2.0	M	Fair/Fair	Previously 'topped' tree' a large low easterly growing limb has now assumed dominance. *None	20+	C1
T10	Lawson cypress	12	190 mm 16.33 m^2 2.28 m	4.0 E	N = 0.5 E = 0.5 S = 1.0 W = 2.0	M	Fair/Fair	Drawn-up tree suppressed on east side by T9. *None	20+	C1

APPENDIX 1 - TREE SURVEY SCHEDULE

Tree Ref No.	Species	Height(m)	Stem Diameter (mm) Root Protection Area (m2) Radius of Root Protection Area	Crown base (lowest significant point above ground) (m)	Branch Spread (m)	Age Class	Physiological/ Structural Condition	Comments * Preliminary Management Recommendations	Estimated Remaining Useful Contribution (years)	Category Grading
T11	Lawson cypress	12	170 mm 13.07 m^2 2.04 m	3.0 W	N = 0.5 E = 1.0 S = 0 W = 2.0	M	Fair/Fair	Drawn-up tree suppressed on south side by T10. *None	20+	C1
T12	Lawson cypress	8	120 mm 6.51 m^2 1.44 m	0.1 E	N = 0.5 E = 3.0 S = 0 W = 2.0	M	Poor/Poor	Poor quality suppressed tree. *None	20+	C2
T13	Lawson cypress	11	230 mm 23.93 m^2 2.76 m	4.0 E	N = 0 E = 2.0 S = 1.5 W = 2.0	M	Fair/Fair	Previously 'topped' tree, now multi-leadered. *None	20+	C1,2
T14	Lawson cypress	11	160 mm 11.58 m^2 1.92 m	5.0 EW	N = 0.5 E = 1.0 S = 0 W = 0.5	M	Fair/Fair	Previously 'topped' tree, now divided at 5 m above ground level into two similarly-sized leaders. *None	20+	C2

APPENDIX 1 - TREE SURVEY SCHEDULE

Tree Ref No.	Species	Height(m)	Stem Diameter (mm) Root Protection Area (m2) Radius of Root Protection Area	Crown base (lowest significant point above ground) (m)	Branch Spread (m)	Age Class	Physiological/ Structural Condition	Comments * Preliminary Management Recommendations	Estimated Remaining Useful Contribution (years)	Category Grading
T15	Lawson cypress	11	120 mm 6.51 m^2 1.44 m		N = 0 E = 0 S = 0 W = 0		Poor/Poor	DEAD *Remove	none	**U**
T16	Leyland cypress "Castlewellan Gold"	4	320/310 mm 46.32 m^2 3.84 m	1.0 W	N = 2.0 E = 4.0 S = 3.0 W = 3.0	M	Good/Fair	Trunk divides into two stems at around 1 m above ground level. *None	20+	C1

Age Class: EM = Young (first third of life expectancy); M = Middle Aged (second third of life expectancy); OM = Over Mature (beyond life expectancy and declining naturally); V = Veteran (of great age for its species and possibly of conservation value)

Condition: P = Physiological; S = structural; Good = no significant physiological problems; Good = no significant structural problems; Fair = symptoms of ill health that can be remediated; Fair = significant defects that can be remediated; Poor = significant ill health; Poor = significant defects – no viable remedial action

Priority Category = U = URGENT WORKS - 1 = year - 2 = within two years - 3 = within three years - N/A = No Action

Zone A - Trees located close to and specifically within falling distance of adjacent properties, built structures and areas of high use – Inspection to be annual by a qualified arborist.

Zone B - Trees located within gardens and open areas though not adjacent to roads - Inspection to be biennially by a person with an appropriate and working knowledge of trees and tree structural defects.

APPENDIX 2 - PERSONAL DETAILS OF SHANE A LANIGAN

Qualifications: I hold the City and Guilds Certificate in Tree Surgery and am an International Society of Arboriculture Certified Arborist, also holding the International Society of Arboriculture Municipal Arborist Accreditation and being a Board- Certified Master Arborist of that professional body.

In addition, I hold the Royal Forestry Society's Professional Diploma in Arboriculture which is a degree level qualification rated as level 6 on the qualifications and curriculum framework. It is a qualification specific to the arboricultural profession. In matters of tree safety and risk assessment I have undertaken and completed the LANTRA Awards Professional Tree Inspection Course and integrated assessment, I also hold the International Society of Arboriculture Tree Risk Assessment Qualification (TRAQ).

I am a registered consultant of the American Society of Consulting Arborists (ASCA RCA#588), a Chartered Arboriculturist, being a Professional Member of the Institute of Chartered Foresters and a Registered Consultant of the Arboricultural Association.

With regard to legal issues, I can confirm that I am also a Cardiff University Law School Certified Expert Witness in both civil and criminal proceedings.

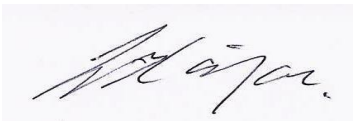
My professional memberships include:

- The American Society of Consulting Arborists
- The Arboricultural Association
- The Consulting Arborist Society
- The International Society of Arboriculture
- The Institute of Chartered Foresters
- The Royal Forestry Society

Career details: I am a second- generation arborist having worked from 1971 to 1979 for a private tree care company before forming my own arboricultural company in 1979.

Continuing professional development: I maintain and improve my professional knowledge by being an active member of the five professional bodies referred to above. In addition, I attend a high number of arboriculture related seminars and the annual conferences of the International Society of Arboriculture, the Arboricultural Association and the Institute of Chartered Foresters (ICF). I was also privileged to serve on the credentialing council of the International Society of Arboriculture educational certification department for seven years. Having served two consecutive terms as an elected member. I 'rolled off' the council in late 2020.

Currently, I am the senior consultant within Abbots Arboricultural Advice Limited. This is my consulting practice which is a forward-looking operation. In order to keep abreast of changes in arboriculture and consulting practice I attend many conferences and seminars which contribute to my CPD/CEU obligations. Currently, all of these events are delivered online.



S.A. Lanigan – Chartered Arboriculturist
MICFor, Dip.Arb.(RFS), M.Arbor A, RCArborA – ISA - BCMA, CUEW,
ASCA Registered Consulting Arborist #588

APPENDIX 3
Photographs: 1 – 7

PHOTOGRAPH NO. 1 – T1 – WELLINGTONIA WITH T2 – HONEY LOCUST (CENTRE)

PHOTOGRAPH NO. 2 – T3 – WELLINGTONIA

PHOTOGRAPH NO. 3 – S1 – CHERRY STUMP

PHOTOGRAPH NO. 4 – DECAYED CHERRY STUMP WITH GANODERMA FUNGAL BRACKET (ARROWED)

PHOTOGRAPH NO. 5 – T6 – OAK

PHOTOGRAPH NO. 6 – T7 – OAK

PHOTOGRAPH NO. 7 – T9 – T15 – LAWSON CYPRESS WITH T16 – LEYLAND CYPRESS (THIRD-PARTY TREE) IN BACKGROUND (ARROWED)

APPENDIX 4

References:

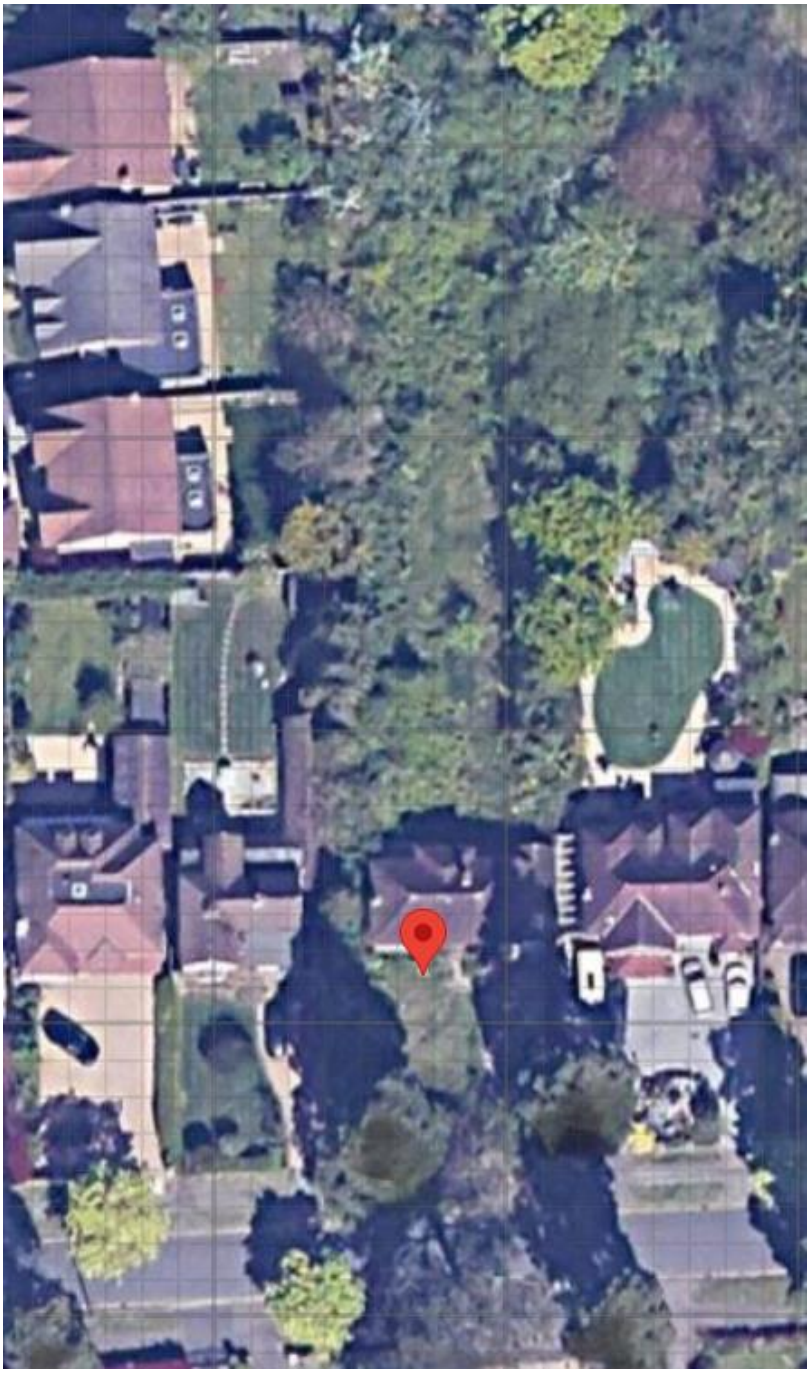
British Geological Survey Environmental Science Centre, Keyworth, Nottingham, NH12 5GG (Natural Environment Research Council, 2013) – 'My Soil App' – accessed May 2022.

BS 5837:2012 British Standards Limited (2012) *Trees in relation to design, demolition and construction – Recommendations* 4th ed. 2 Park Street, London W1A 2BS. British Standards Institution.

Hillier J G (2014). *The Hillier Manual of Trees and Shrubs*. 14th ed. 80 Vincent Square, London SW1P 2PE;(Hillier Nurseries and The Royal Horticultural Society).

APPENDIX 5

OVERVIEW – 25 WARREN ROAD, ICKENHAM, MIDDX UB10 8AA



Courtesy of Google maps

APPENDIX 6

Statutory Tree Protection

Tree Preservation Orders/Conservation Areas

Tree Preservation Orders are made under Section 198C of the Town & Country Planning Act and applied by the 2012 Tree Regulations. They effectively prohibit unauthorised removal and pruning of trees identified within the order. Conservation areas are designated areas defined by geographic limits within which any tree with a stem diameter of more than 75mm (measured at breast height or 1.5m above ground level) is effectively protected. Certain exceptions exist under both sets of legislation, though these are limited and ideally require interpretation by a suitably qualified arboriculturist.

Felling Licences

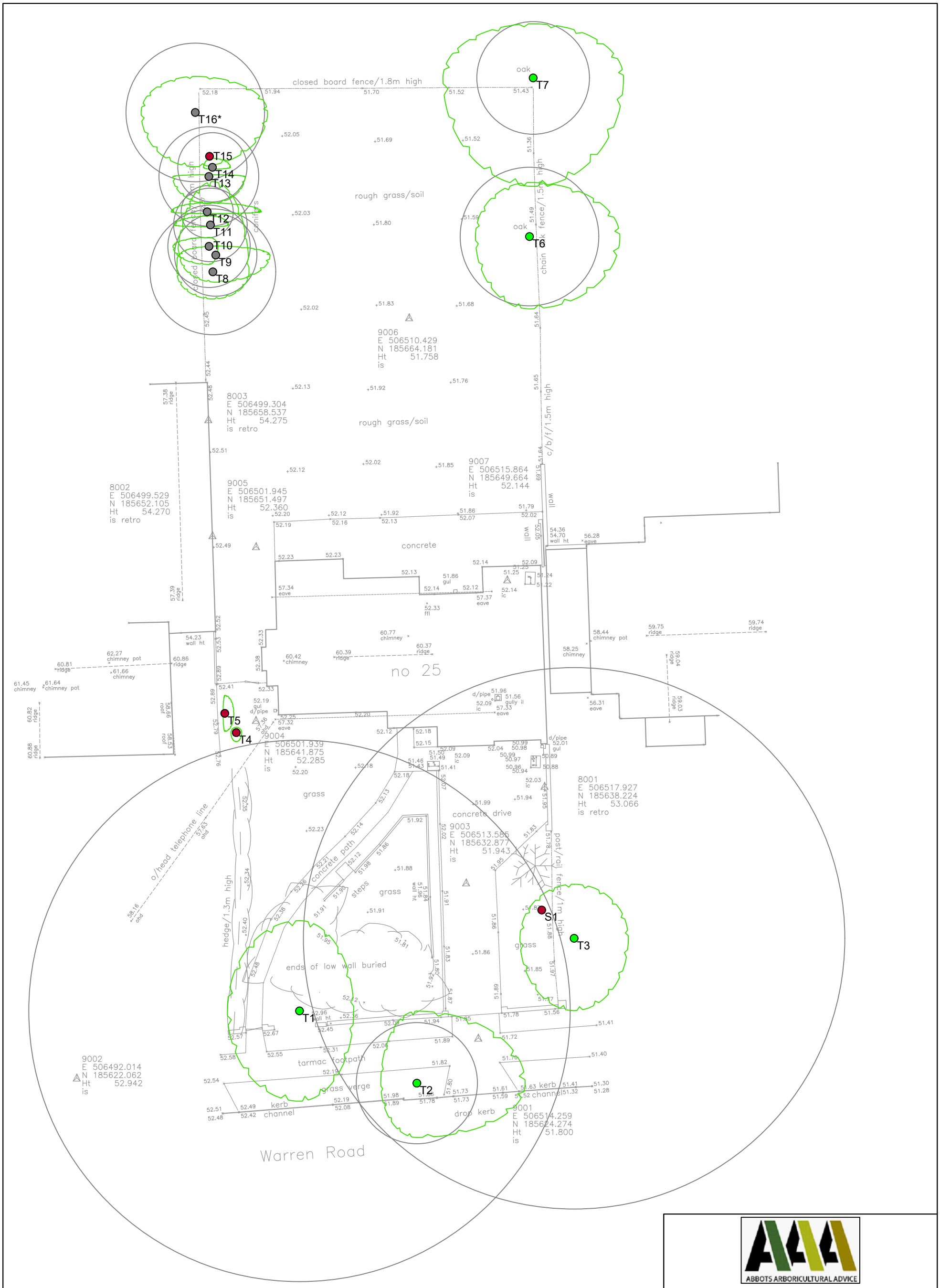
Felling licences may apply for felling significant volumes of timber on sites without full planning permission. The statutory legislation in this case is the Forestry Act 1967 which is administered by the Forestry Commission.

Faculties

Faculties may be required for significant tree works on sites that fall under the jurisdiction of the church authorities. The local Parochial Church Council can advise on the need and requirements for faculties.

Hedgerow Management and Removal Notices

A hedgerow removal notice will be required for the removal of almost any hedge growing in a rural area. Certain works are permitted without notification including (j) "for the proper management of the hedgerow". The applicable statutory legislation may be cited as "The Hedgerow Regulations 1997" (Statutory Instrument 1997 No. 1160).



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01923 606551 / shane.lanigan@abbotsarboriculturaladvice.com

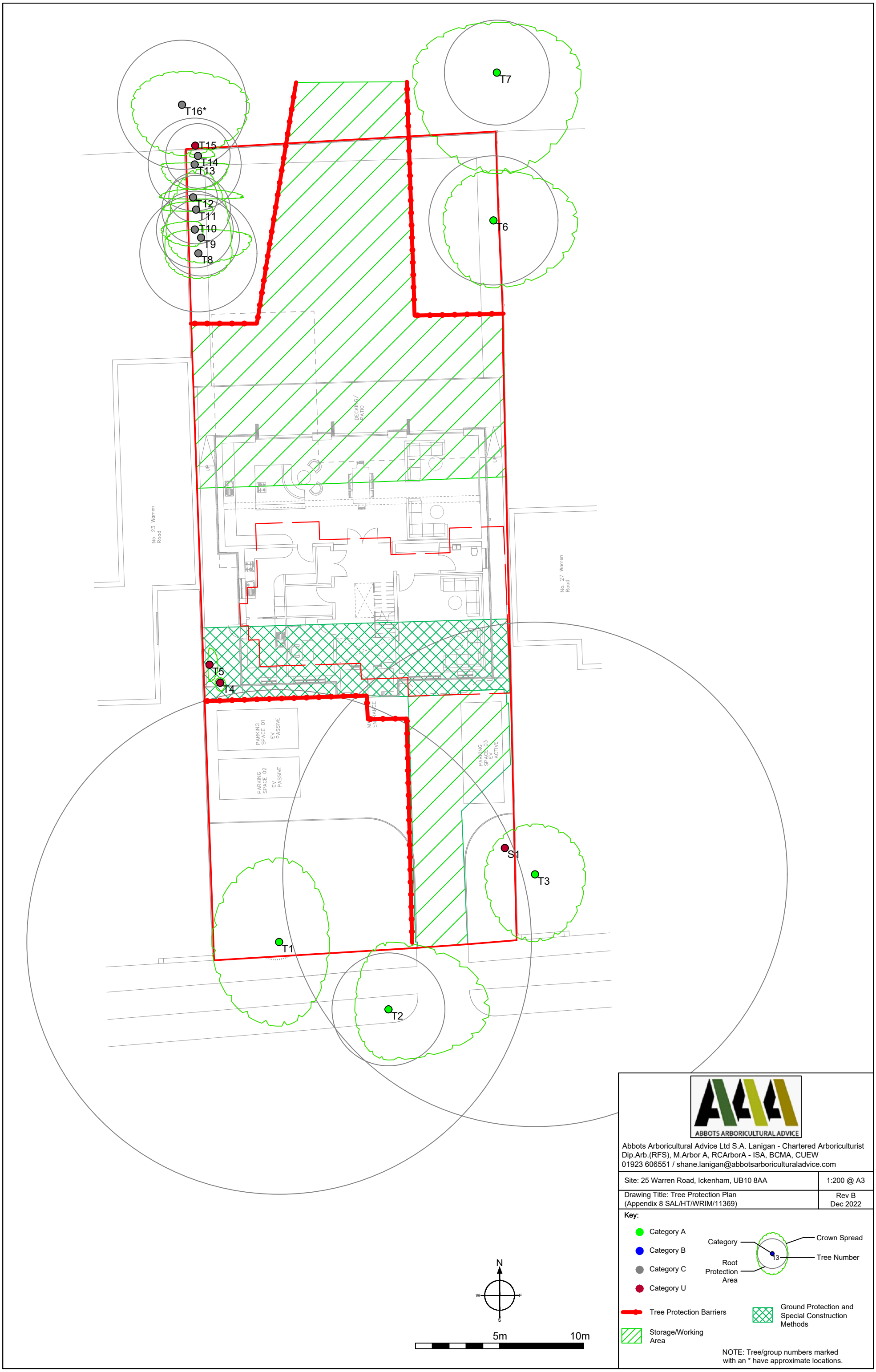
Site: 25 Warren Road, Ickenham, UB10 8AA	1:200 @ A3
Drawing Title: Tree Constraints Plan (Appendix 7 SAL/HT/WRIM/11369)	Dec 2022

Key:

- Category A
- Category B
- Category C
- Category U

Category
13
Crown Spread
Tree Number
Root Protection Area

NOTE: Tree/group numbers marked with an * have approximate locations.



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01923 606551 / shane.lanigan@abbotsarboriculturaladvice.com

Site: 25 Warren Road, Ickenham, UB10 8AA	1:200 @ A3
Drawing Title: Tree Protection Plan (Appendix 8 SAL/HT/WRIM/11369)	Rev B Dec 2022

Key:

- Category A
- Category B
- Category C
- Category U

Category — 13 — Crown Spread
Root Protection Area — Tree Number

- Tree Protection Barriers
- Ground Protection and Special Construction Methods
- Storage/Working Area

NOTE: Tree/group numbers marked with an * have approximate locations.

on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray (Figure 3b).

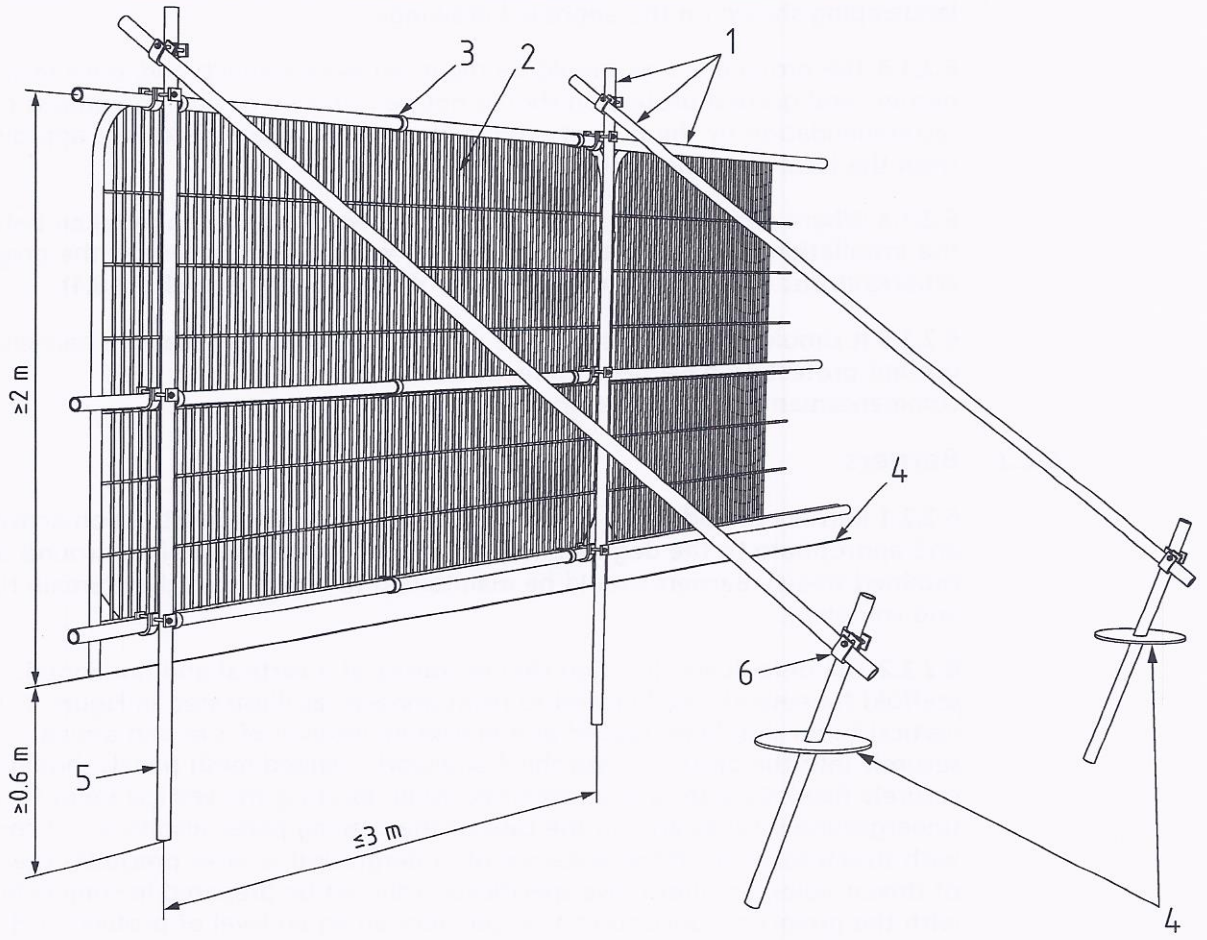
NOTE 1 Examples of configurations for steel mesh perimeter fencing systems are given in BS 1722-18.

NOTE 2 It might be feasible on some sites to use temporary site office buildings as components of the tree protection barriers, provided these can be installed and removed without damaging the retained trees or their rooting environment.

6.2.2.4 All-weather notices should be attached to the barrier with words such as:

"CONSTRUCTION EXCLUSION ZONE – NO ACCESS".

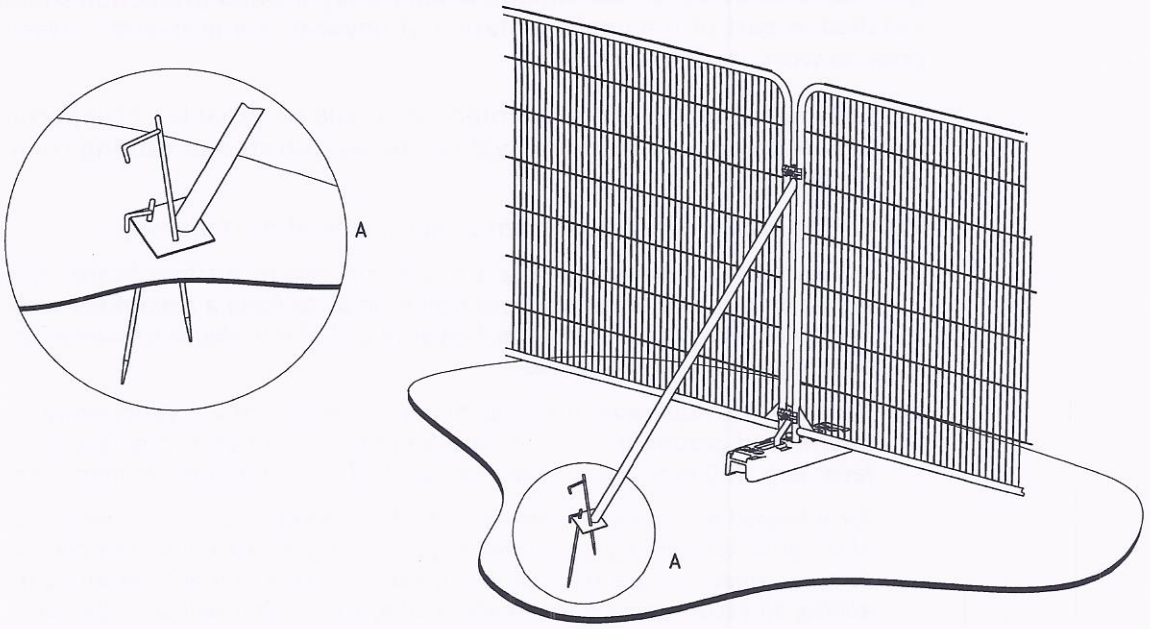
Figure 2 **Default specification for protective barrier**



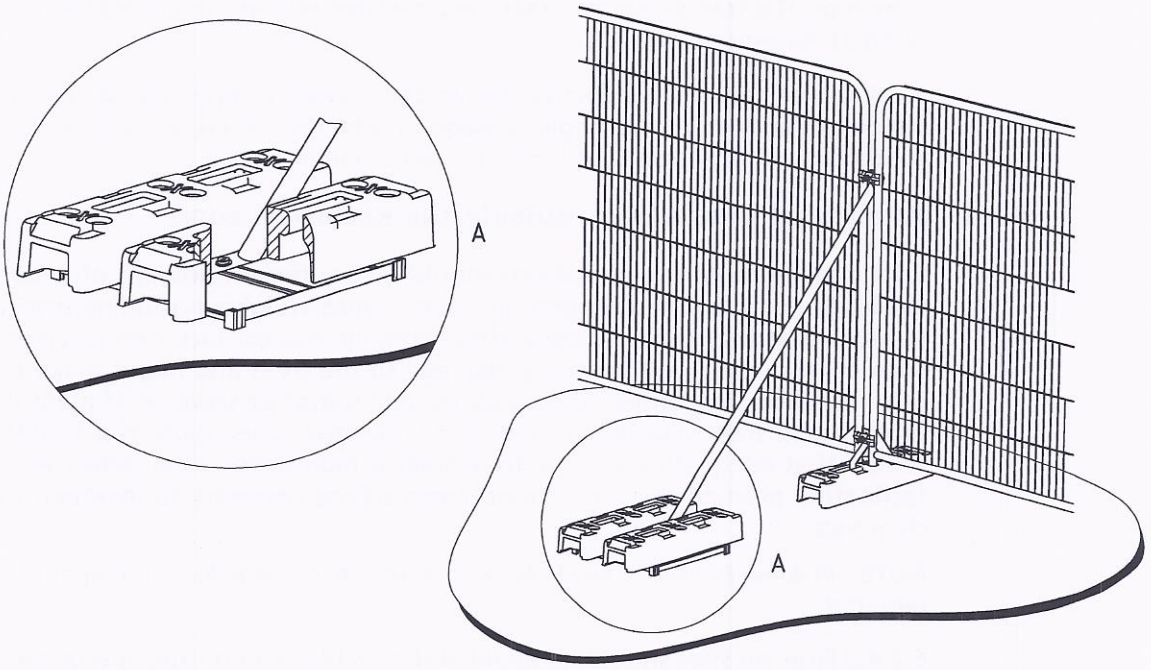
Key

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

Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

6.2.3 Ground protection during demolition and construction

6.2.3.1 Where construction working space or temporary construction access is justified within the RPA, this should be facilitated by a set-back in the alignment of the tree protection barrier. In such areas, suitable existing hard surfacing that is not proposed for re-use as part of the finished design should be retained to act as temporary ground protection during construction, rather than being removed during demolition. The suitability of such surfacing for this purpose should be evaluated by the project arboriculturist and an engineer as appropriate.

