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Arboricultural Impact Appraisal and Method Statement

The Old Vicarage, 6 High Street, Abbots Langley, Herts WD5 0AS

CLIENT:	**Mr Steven Deering**
CLIENT REF:	**SD/TOVSLCALH**
URBAN FORESTRY REF:	**SAL/KMA/10593a - REVISION**
UF CONSULTANT:	**Shane A. Lanigan**
REPORT DATE:	**27th January 2021**

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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 erect a timber framed garage/outbuilding and create a new vehicular access from St Lawrence Close. An extension/orangery is to be built to the northwest of the dwelling house. It will be partly upon the footprint of the existing garage which is to be demolished. A short access road of sufficient width to enable access and exit to and from the garage will be created. The garage building will be timber framed and supported on pier and beam foundations so as to avoid significant harm to the roots of adjacent trees particularly those growing to the south of the rear boundary fence. An informal parking turning area is proposed to be installed west of the garage. It will be approximately 10 m x 10 m and cover around 10% of the RPA (Root Protection Area) of T2, a C class cherry plum. No significant harm should be caused to the tree. I concluded that provided the construction works are executed with due care no important trees on this site should be lost, and other than a new entrance being created there should be minimal environmental impact.

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**: Mr Stephen Deering instructed me to inspect those trees located within the grounds of The Old Vicarage that are located within the stem diameter multiplier distance of the proposed construction activity. The following information is to be provided to accompany the planning submission.

- A schedule of trees to include basic data as required by BS 5837 (2012) and 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 the protection and management of retained trees.

1.2 **Documents provided**: The British Standard requires that trees within the specified stem diameter multiplier distance are included in the survey. Those detailed on the plan provided are within the distance. I have been provided with certain documentation in relation to this proposal, specifically these are:

- a copy of the site plan (Scale 1:200 at A3), drawing No: 1799-03, prepared by Rumball Sedgwick Chartered Surveyors, and which I used when preparing my earlier survey on this site;
- a topographic survey (Scale 1:100[A03]), drawing No: 0516-10-01 prepared by Mike Worby Survey Consultancy Limited, and which I also used when preparing my earlier survey on this site.

1.3 **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.

1.4 **Statutory Tree Protection**: I have made enquiries of the Local Planning Authority which in this instance is Three Rivers District Council 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 has confirmed that trees on this property are not protected by any Tree Preservation Orders but the site does lie within a designated conservation area; (see Appendix 6 '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.

1.5 **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 50 years experience in this discipline. A summary of these matters is enclosed as Appendix 2.

1.6 **Background Information**: The site of the proposed construction is currently the rear garden of 'The Old Vicarage' (see photographs 1 & 4 Appendix 3) which was formerly the vicarage to St Lawrence Church. It is located to the northwest side of High Street, Abbots Langley and southwest of the church. St Lawrence Close passes behind the southern boundary of the property. Access to the old vicarage is now via St Lawrence Close and by way of a new driveway through the site's southern boundary.

1.6.1 The garden area is well populated by trees some of which are historic plantings of yew (English & Irish) and pine. Other trees seem to be self-seeded examples of ash, hazel, holly and sycamore. I used the 'Hillier's Manual of Trees and Shrubs' to confirm my species identification. Review of the plans shows that the route of the driveway and placement of the building largely avoids the root protection areas (RPA's) of significant retained trees. Trees that are a significant component of the local landscape should not be adversely affected by the development.

1.7 **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 Sand to Sandy Loam, the parent material from which this has evolved by the 'weathering process' is described as Floodplain Sand/Gravel.

2. Arboricultural Impact Appraisal

2.1 **Summary of the impact on trees**: Development of sites, particularly those with existing tree cover can impact upon the trees both by the direct impact of tree loss and also 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 value of the area, in particular by way of disruption of wildlife habitat. I have summarised the impact of this proposal on trees in Table 1.

TABLE 1

IMPACT	REASON	A	B	C	U
Trees to be removed: No trees will need to be removed to enable construction of either the garage or orangery.		**0**	**0**	**0**	**0**
Retained trees that may be affected by disturbance to RPA's: Three trees may be affected by disturbance to their RPA's (root protection area) T1 - Sycamore T2 - Cherry plum T3 - Magnolia	The new garage/ outbuilding/parking/turning area will be built partly within their RPA's	**0**	**1**	**2**	**0**
Retained trees to be pruned: Two trees will need to be pruned to enable installation of the garage: T1 - Sycamore T3 - Magnolia	Because the magnolia tree's growth is biased to the west due to suppression by nearby larger trees and laterally northerly, growing branches of the sycamore (T1) are encroaching over the garden of the Old Vicarage at low level.	**0**	**1**	**1**	**0**

2.2 **Detailed Impact Appraisal**

2.2.1 **Category U trees to be removed**:
No catebory U trees are to be removed to enable this development.

2.2.2 **Category A trees that may be affected by way of RPA disturbance**:
No category A trees were identified on this site.

2.2.3 **Category B trees that may be affected by way of RPA disturbance**:
One category B tree will be affected by works within a moderate percentage of its calculated RPA. The tree is a mature sycamore located south of the site boundary. Root disturbance will be minimal and should not lead to long-term harm.

2.2.4 **Category B trees that may require pruning:**
One category B tree (sycamore-T1) will need to be lightly pruned on the north side to enable construction of the garage.

2.2.5 **Category C trees that may be affected by way of RPA disturbance**:
Two category C trees, the cherry plum (T2) and the magnolia (T3) may be affected by a moderate incursion into respectively, the eastern and western sectors of their calculated RPAs. The garage/outbuilding foundations are to be of pier and beam construction and so the incursion will be minor with no long-term harm resulting.

2.2.6 **Category C trees that may require pruning:**
One category C tree, magnolia (T3) will need to be pruned back on the western side to enable construction of the garage.

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 and ground cover. 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**: No trees are to be removed and so I have not specified any replacement planting.

2.3.3 **Summary of the impact on local landscape character:** Should this development proceed there should be only a minimal impact on local landscape character. No trees will need to be removed to enable the construction of either building. The fact of the proposed garage being relocated southwards will mean that the open lawned area will now be unaffected by works to build a new driveway. As the garage will now be located at a lower level it should be less visible from the southern side than the previous proposal.

2.3.4 **Retained trees to be pruned:** One small tree, the magnolia (T3) will need to be crown lifted on the western side to allow installation of the garage, and the northern side of the crown of T1-sycamore will also need to be lifted and some lateral branches reduced in length. This work will be only minorly visible from outside the site.

2.3.5 **Suggested replanting options for this site:** None

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 SAL/TOVSLCALH/TPP**: The tree protection plan which is included as Appendix 8 is illustrative only and may exclude various on-site features. It has been prepared on basic plans supplied by the Rumball Sedgwick which are assumed to be accurate. I have prepared the plan specifically to deal with tree issues and would advise that all scaled measurements be checked against the original submission 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 starts. There are two areas proposed for development within this proposal:

i) an area east of the entrance way from St Lawrence Close, and;
ii) the area between the existing dwelling house and the Parish Council car park to the west of this building.

The first area is effectively screened by appreciable tree and shrub growth to the south and east and also by slightly more distal growth to the west. Area two, which is proposed to host the 'orangery' is more exposed though mostly to the west and northern side. The proposed new building will replace an existing garage and should prove to be a visual improvement.

3.2.1 There are other individual trees and tree groups with associated understory growth within the rear garden area. Relocation of the proposed garage removes this structure from an area adjacent to a group of the larger site trees and means that a driveway will not now need to be constructed through the existing lawned area. This will reduce the impact on the site aesthetics and ecology. I have surveyed trees within the garden areas that might be affected by the works.

Trees growing within and near to the site that may be affected by construction activity are shown on the plans (see Appendices 7 & 8). These are numbered and coloured in accordance with BS 3998:2012 Trees in relation to design, demolition and construction Recommendations (p19, 20, 21, & 22). The colours denote the BS: 5837 categorisation as follows:

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

3.3 **Tree Protection Barriers:** In all instances the incursions into the RPA's will be moderate and as the affected trees are relatively young, they should withstand the impacts well. Mostly the incursions will simply be to facilitate the construction works. After installation of the protective barriers additional supervisory work should not be needed in the area where the orangery is proposed but may be required when excavations are made and foundation piers installed for the garage/outbuilding. 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).

3.3.1 Works to construct the garage/outbuilding and access driveway will take place at the distal, southern end of the site. In this area tree protection barriers shall be placed west of T3 (magnolia) six metres northwards into the garden area and from there eastwards to the boundary fence. This area will become an inviolate construction exclusion zone (CEZ). All construction activity will be excluded and no access permitted other than under the direct supervision of the project arboriculturist.

3.3.1.1. The proposed orangery is to be constructed to the northwestern side of the dwelling house. It will be built partly on the site of the existing garage and in other, proximal areas, will cover an existing paved area. Tree protection barriers shall be erected to the west of this area, as shown on the Tree Protection Plan (Appendix 8) to prevent possible damage to T10 (cherry) and T11 (yew) which are to be retained. Further barriers will be installed west of the access roadway up to, and part way around the multi-stemmed cotoneaster (T9) to protect this feature.

3.3.2 It is not only direct protection of the trees RPA's 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 preparation of mortar and concrete with associated 'washout residues'.

Any concrete mixing shall be carried out on the site of the proposed parking/turning area within the area marked by orange hatching on the Tree Protection Plan. Storage of materials, plant and any site buildings shall also be confined to this area ensuring that no activity encroaches into the RPA of any retained trees.

3.4 **Methodology for working in RPA's:** In some areas works are proposed within the RPA's of retained trees. Specific working methods should be employed here to avoid damage to the roots of retained trees. This will apply in the following areas:

i) west of the magnolia (T3) and north of the sycamore (T1). In this area, which is the site of the proposed garage, foundations shall be 'pier and beam' design to avoid significant damage to roots of the two trees. The location of the piers shall be carefully chosen to avoid damage to tree roots. Excavations for the piers shall initially be dug by hand though the surface 400mm of soil and if any roots of significant size (>25mm diameter) are uncovered the pier will need to be relocated. Arboricultural supervision will be needed for this phase of the works;

ii) works to construct the orangery will take place outside the RPA of any retained trees. Tree protection barriers will be installed to create an effective CEZ and so protect the cherry (T10) and yew (T11).

Where the garage/outbuilding is to be installed digging will need to be undertaken using hand tools only, any roots >15mm diameter must be carefully and cleanly pruned back and protected against desiccation by covering with damp hessian material. Driveway and path edgings should be made of appropriately treated timber secured with pins rather than concrete haunching. Surfacing should be permeable where it intrudes significantly into the RPA of a retained tree, e.g. T1.

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

3.5.1 **Tree work recommendations:** I have specified some relatively minor crown lifting and lateral branch reduction works to the sycamore (T1) and magnolia (T3). These will enable the garage to be built whilst retaining the trees as effective screening to soften the rigid architectural building lines.

3.5.2 **Excavations for the new access road, outbuilding and pathway**: The line of the new access road with associated parking/turning area and garage will take place partly within the RPA's of T1 (sycamore), T2 (cherry plum) and T3 (magnolia). Significant damage to the RPA's of T1 and T3 will be avoided by using pier and beam type foundations with hand-digging to avoid damage to tree roots. The incursion into the RPA of T3 will be minor-around 10% of the calculated area-and involve no more than removal of the surface layer of historically built-up ground. Base and surfacing materials used to construct the turning area will be porous and so allow water infiltration.

3.5.3 **Site huts, welfare facilities, toxic run off**: I have designated an area to the northwest of the proposed garage for these purposes (see Appendix 8, Tree Protection Plan).

3.5.4 **Services:** I presume that all services-gas, water, electricity and drainage will connect to the existing. Any trenching for services installation will need to conform to National Joint Utilities Group guidelines to avoid damage to the RPA of T1 (sycamore) and T9 (cotoneaster) (see photograph 9 Appendix 3-large tree to the far left).

3.6 **Programme of Works**

3.6.1 Works should be undertaken in such a way that unnecessary traversing of the existing garden area is avoided. I would suggest the following:

i) Erect tree protection barriers as detailed on the Tree Protection Plan.
ii) Excavate the area for the new access road and parking/turning area and the foundation piers for the new timber-framed garage. Remove spoil via the new entranceway into St Lawrence Close;
iii) Install sub-base of new access road and parking/turning area with necessary edging. Use this road for all subsequent access to the storage area and site of the new outbuildings.
iv) Erect the new outbuilding and install services as previously described.
v) Create the new pathway from the front of the existing vicarage to the new parking/turning area using no-dig techniques.
vi) Remove all site huts and surplus materials including temporary plywood flooring.
vii) Install access road/parking/turning area surface shingle.
viii) Remove tree protection barriers.

3.7 **Tree protection and supervision**

3.7.1 **Overview**: Effective tree protection ideally requires input from an arboricultural professional. An arboricultural professional should ideally be on site during the excavation process and at other relevant stages of the works. Provided that this advice is followed there should be few adverse effects on tree health.

3.7.2 **Effective arboricultural supervision and the discharge of planning conditions**: A retained arboricultural consultant may assist in the discharge of any arboricultural planning conditions imposed by the Local Planning Authority. It is considered unlikely that construction based supervisory personnel would have the required level of arboricultural knowledge to effectively ensure and demonstrate compliance with such conditions. A framework of acceptable arboricultural input is detailed at Appendix 5. The arboricultural supervisory input is usually by way of scheduled site visits, with appropriate follow up written confirmation of the issues discussed being circulated to all relevant parties. The records of each site visit and pertinent issues which have been addressed should be retained as preferably both electronic and written files and such files could then be effectively used as proof of compliance with conditions, thereby allowing these to be discharged at appropriate stages of development.

3.7.3 **Stages of arboricultural advice and supervision**: Integrated arboricultural involvement can be an effective tool in addressing all tree related issues once consent for the development is confirmed. The following stages of the development project should involve the arboricultural consultant.

i) **Initial planning preparation in relation to trees**:
The development that is actually implemented is often very different to that which was originally envisaged. Planning is frequently an evolving process which changes in response to issues and constraints that arise as the design process moves forward. An arboricultural consultant instructed early on in the process can assist in the integration of tree issues into the overall site management. The consultant can advise on effective measures, sometimes in ways that may save expense and time and ensure that delays are minimized. Discussion between the arboricultural consultant and the development team should begin at an early stage in order to effectively manage tree issues and avoid unnecessary delays.

ii) **Post survey site visit**: Prior to any works beginning, a meeting should be convened preferably on site, between the site manager, arboricultural consultant and the Local Planning Authority tree officer or other planning department representative. Minutes of the meeting should be taken and written up before being filed as part of the development monitoring process. Tree protection measures should be fully discussed at this meeting so that their purpose and means of implementation are understood by all sides. At this meeting any clarifications or alterations to the planning consent details should be agreed and recorded. Final details of the tree protection measures should be agreed and the basis of any supervision measures between the arboricultural consultant and the developer will be derived from this.

iii) **Arboricultural supervision**: Soon after commencement of site activity the arboricultural consultant should visit in accordance with a pre-prepared schedule of supervision. It may be necessary to arrange ad-hoc visits to address contentious issues should these arise. The arboricultural consultant may be viewed as a link between the developer and the Local Planning Authority. It will be the arboricultural consultant's role to ensure that the protective measures as designed and submitted are in place and providing effective protection before work begins. Subsequently the arboricultural consultant's role will be to monitor compliance with any conditions imposed by the Local Planning Authority, and providing advice on any tree related problems that may arise, formulating solutions or modifications as necessary.

3.7.4 **Site Management**: The details of this arboricultural method statement and any subsequent amendments must be known and understood by all site personnel. It is the responsibility of the developer to ensure that the details of the method statement are made known to all personnel who may cause harm to any retained trees. An effective method of providing the information to such persons would be to issue them with copies of the documents. This should be done as part of the site induction process and written into appropriate site management procedures. All recipients of the document should sign to confirm receipt of the document and that they understand the content and requirements.

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.

Ash :	*Fraxinus excelsior* L.
Cherry plum:	*Prunus cerasifera Nigra* Aiton
Cotoneaster:	*Cotoneaster spp* Medik
Hazel :	*Corylus avellana* L.
Holly:	*Ilex aquifolium* L.
Magnolia:	*Magnolia x soulangiana* Soul.-Bod.
Sycamore:	*Acer pseudoplatanus* L.
Yew :	*Taxus baccata* L.

4.3 **Age Class**: An assessment of the relative life stages of the tree where Y = young (first third of life expectancy), MA = middle aged (second third of life expectancy), M = mature (final 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 conservation value.

4.4 **Height (est) (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, est, (m) 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 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 constraint to development. They should normally 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 initialed 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.

[redacted]

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

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	Sycamore	14	360-260 167.42m² 7.32m	4.0	N = 5.0 E = 4.0 S = 5.0 W = 4.0	M	Good/Fair Bifurcates at 0.5m above ground level	An early mature sycamore with some squirrel damage and heavy ivy cover. *None	20+	B1
T2	Cherry plum	8	250 28.27m² 3.00m	3.0	N = 4.0 E = 3.0 S = W =	M	Good/Poor	Suppressed by adjacent cherry tree to the west side. Heavy ivy cover. *None	10+	C1
T3	Magnolia	6	310 43.47m2 3.72m	Ground level	N = 8.0 E = 2.0 S = W = 3.0	M	Good/Poor Heavily suppressed	Suppressed by ivy – covered holly trees to the southeast but worthy of retention. *Lift canopy on western side to 3m above ground level and reduce longer lateral branches here by 2-2,5 m	10+	C1
T4	Holly	15	250/260/200/180/ 180 105.68m2 5.80m	Ground level	N = 2.5 E = 2.5 S = 2.5 W= 2.0	M	Good/Good Some ivy cover	A multi-stemmed tree with some ivy cover. *None	20+	B3

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
T5	Hazel	7	280/220/230/210/ 220/220 141.03m² 6.7m	2.0	N = 5.0 E = 4.0 S = 3.0 W= 6.0	M	Good/Fair A coppice stool	A re-grown coppice stool which has been neglected and allowed to grow into a tree. *None	10+	C1
T6	Ash	25	330/430 132.73m² 6.5m	6.0	N = 4.0 E = 4.0 S = 6.0 W= 5.0	M	Good/Fair	This tree bifurcates at around 1m above ground level and then again at around 6m. It is heavily ivy covered and has a dead central stem. *Remove dead stem completely (to remove a hazard)	20+	B2
T7	Sycamore	25	420/380/390/400/ 380 421.28m² 11.58m	2.3	N = 8.0 E = 7.0 S = 8.0 W= 4.0	M	Good/Good	A multi-stemmed tree with some crossing/rubbing branches and natural braces, some squirrel damage, light ivy cover at low levels. *None	20+	B2
T8	Sycamore	20	650 191.13m² 7.80m	5	N = 6.0 E = 5.0 S = 5.0 W= 6.0	M	Good/Good	A mature sycamore with very heavy ivy cover. *None	20+	B2

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
T9	Cotoneaster	5	260 30.58m² 3.12m	1	N = 4.0 E = 5.0 S = 5.0 W= 5.0	M	Good/Fair	This tree has produced a large amount of sucker growth but nonetheless remains an attractive feature. *None	10+	C3
T10	Cherry	12	280 35.46m² 3.36m	900mm	N = 3.0 E = 3.0 S = 4.0 W = 5.0	E/ M	Good/Fair	Early mature wild cherry with a rival leader arising at 900mm above ground level on the western side, an over extended branch arises at 3.5m above ground level above this level. *None	20+	C1
T11	Yew	7	120 6.51m² 1.44m	Ground level	N = 1.0 E = 2.5 S = 1.5 W = 2.5	M	Poor/Poor	This is a poor-quality tree that has been historically reduced to a low level and allowed to regrow. Much suppressed by adjacent low-level shrub and climber growth (now removed). *None	20+	C2

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

Priority Category = U = URGENT WORKS - 1 = within one 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 MR 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 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.

[redacted]

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 - 3

PHOTOGRAPH NO. 1 - SYCAMORE (T1) BACKGROUND – MAGNOLIA (T3) CENTRE LEFT

PHOTOGRAPH NO. 2 - AREA FOR PROPOSED GARAGE/OUTBUILDING

PHOTOGRAPH NO. 3 - AREA OF PROPOSED ORANGERY SHOWING GARAGE WHICH IS TO BE DEMOLISHED

APPENDIX 4

References:

British Geological Survey Environmental Science Centre, Keyworth, Nottingham, NH12 5GG (Natural Environment Research Council, 2013) – 'My Soil App' – accessed January 2021.

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,) p15, p102, P406 & p487.

APPENDIX 5

PROGRAMME OF ARBORICULTURAL INPUT:
THE OLD VICARAGE, 6 HIGH STREET, ABBOTS LANGLEY, HERTS. WD5 0AS

Arboricultural action	Programme of action	Extent of arboricultural input	Nature of supervision	Signed off (LPA use)
Pre start meeting with arboriculturist, site agent, LPA tree/planning office	Review plans and any alterations that may have been made	Meeting on site Review plans and any alterations that have been made Check status of tree protective measures	Site meeting and letter/email	
Access facilitation/remedial tree works carried out	Before protective measures are installed	Meeting to assess and ensure competence of contractor, particularly if works are carried out prior to installation of protective fencing	Site meeting and letter/email	
Completion and agreement of the form and extent of tree protection measures, this must be agreed by the LPA	Before any heavy machines enter the site	Meeting to agree the final extent and configuration of the tree protection, provide photographic and documentary evidence of such protection	Site meeting and letter/email	
Demolition	After protective measures are installed	Meeting to discuss means of compliance with submitted arboricultural method statement	Site meeting and letter/email	
Services installation	At the discretion of the developer	Meeting to ensure that appropriate no-dig boring methods or careful hand digging techniques are employed to avoid damage to the roots of retained trees. The contractor must work to the methodologies described within the arboricultural method statement	Site meeting and letter/email	
Installation of new structures	These works must only begin after the tree protection measures have been installed and their form and integrity are to the satisfactory of the LPA tree/planning officer	Meeting to ensure that the contractor property understands his role in avoiding damage to retained trees on site. Further visits by the appointed arboricultural consultant	Site meeting and letter/email	

APPENDIX 5

PROGRAMME OF ARBORICULTURAL INPUT:
THE OLD VICARAGE, 6 HGH STREET, ABBOTS LANGLEY, HERTS. WD5 0AS

Arboricultural action	Programme of action	Extent of arboricultural input	Nature of supervision	Signed off (LPA use)
Removal of tree protection measures	Only when all construction work, including surfacing of roads and erection of gates, fences and other structures is completed. Such a state should be agreed with the LPA	Meeting to establish the need for protective measures is no longer extant	Site meeting and letter/email	
Soft and hard landscaping	Should only begin when construction is completed and tree protection measure have been removed	Meeting to brief the landscape contractor who may be new to the site, further supervisory visits by the arboriculturist may be necessary	Site meeting and letter/email	

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 Licenses

Felling licenses 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.

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01923 606551 / shane.lanigan@abbotsarboriculturaladvice.com

Site: The Old Vicarage, High Street, Abbots Langley, Herts WD5 0AS	1-250@A3
Tree Contraints Plan (Appendix 7 SAL/TOVSLCALH/10593	Rev A Jan 2021

Key:

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

Category — 3 — Crown Spread; Tree Number; Root Protection Area

NOTE: tree locations are approximate

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Site: The Old Vicarage, High Street, Abbots Langley, Herts WD5 0AS	1-250@A3
Tree Protection Plan (Appendix 8 SAL/SD/TOVSLCALH/10593)	Rev A Jan 2021

Key:

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

Category — Crown Spread
Root Protection Area — Tree Number

NOTE: tree locations are approximate

- Area for Parking, Storage and Mixing
- Area for the Arboricultural Supervision
- Tree Protection Fencing

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).

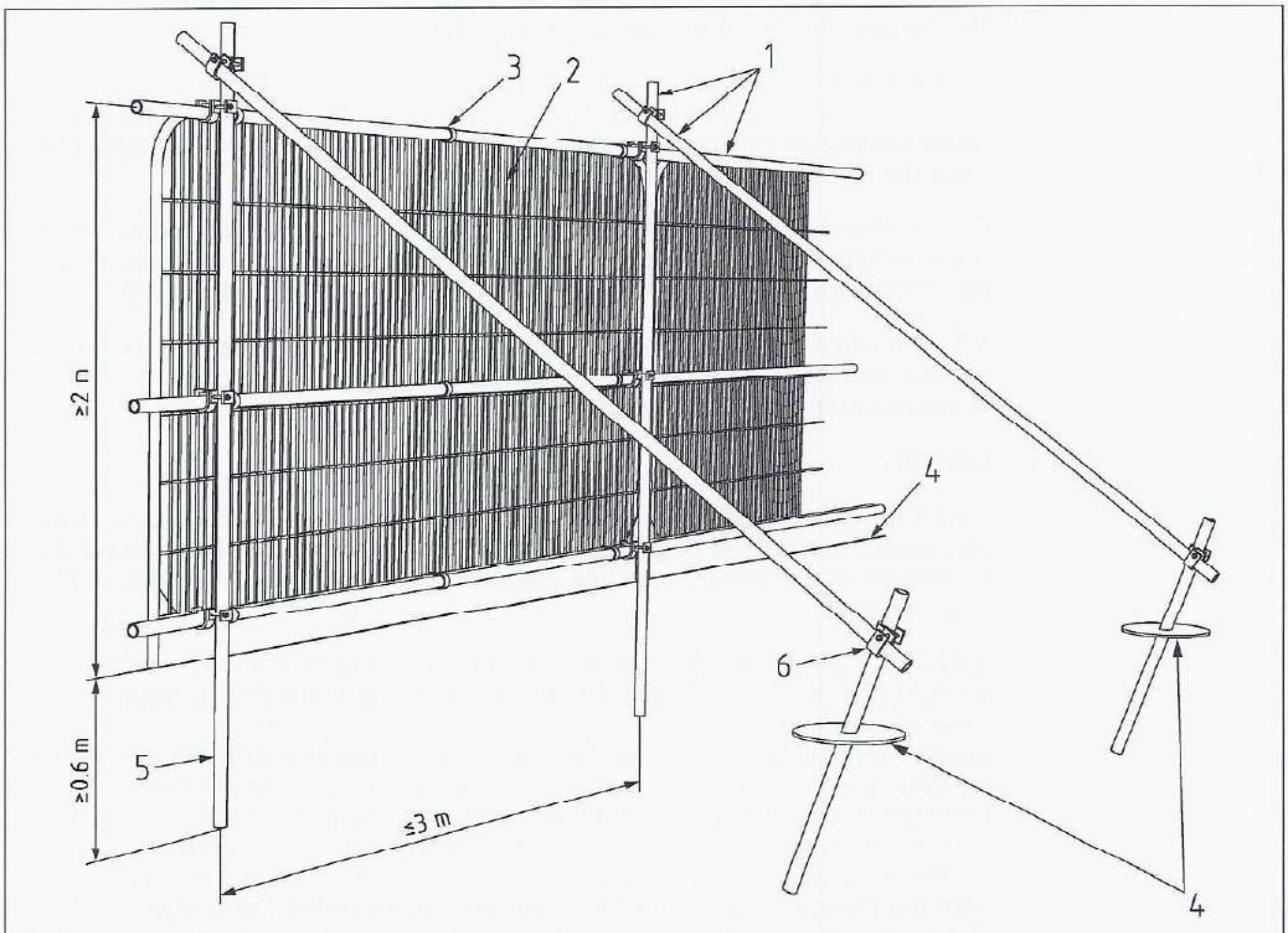
NOTE 1 Examples of configurations for steel mesh perimeter fencing systems are given in BS 1722-18.

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".

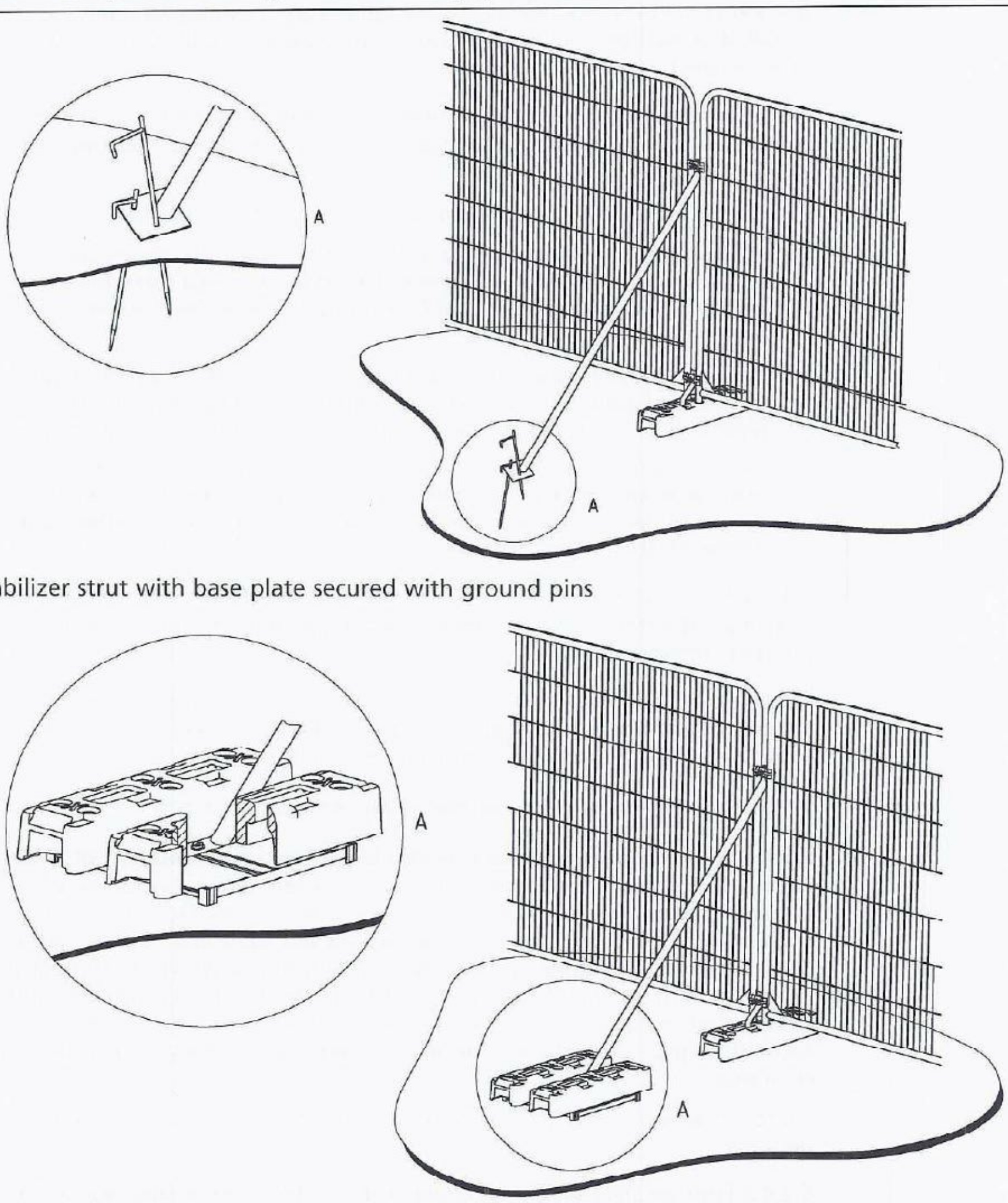
Figure 2 **Default specification for protective barrier**



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.

