YEW TREE AND GARDENS

Client: Mr A. Gott
– Soley House
Crooked Soley, Wiltshire

ARBORICULTURAL IMPACT ASSESSMENT FOR PROPOSED GREENHOUSE

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ARBORICULTURAL IMPACT ASSESSMENT

1. SITE

A. SITE DESCRIPTION

1. The proposed development site is comprised of an area of maintained grounds /* gardens at Soley House, Crooked Soley, Wiltshire.

2. The development area is as indicated in Appendix 2: Tree Constraints Plan and tree stock is as detailed within Appendix 1: Tree Schedule and Appendix 2: Tree Constraints Plan.

3. The survey area consists of the boundaries of the maintained grounds within a section of the site between an existing access track / driveway and the fenced garden boundary

4. Tree stock within the survey boundaries is comprised of a limited number of trees with all trees being located to the north of an existing garden boundary formed by metal estate fencing. Trees to the north of the fence are comprised of a continuous section of woodland

5. The survey site is bounded by the garden boundary and woodland to the north and further areas of maintained grounds and outbuildings to all other sides.

B. SURVEY DETAILS

1. The site was surveyed on 21/09/2023, tree heights were estimated via use of a clinometer (Suunto PM-5), measurements of DBH taken at 1.5m height and crown spread was taken by ground measurements. The position of tree references within the survey area are taken from the site plan supplied to ourselves, with tree locations estimated from measurements obtained with a laser measure from physical reference points during the site survey. Note: We are not land surveyors and tree locations are constrained by the availability of refence points on site and in the supplied site plan. All images were taken at the date with Samsung A32 positions were estimated on site via Sun Surveyor software. Weather conditions were clear with light to no winds.

2. All surveying of tree stock on the site was carried out visually from the ground only. Where ivy cover was encountered on trees then only limited visual checking of structure and potential defects was possible.

3. At the time of surveying all trees were recorded on standard tree record sheets, see Appendix 1: Tree Schedule. Trees were surveyed throughout the entire site, detailed individual details were recorded for all significant trees within the existing site. Where larger numbers of smaller trees were encountered in the survey area these are included as a Group record which includes the approximate height range and maximum Diameter at Breast Height (DBH) of trees within the group, these groups are referred to by group i.e. Group 2 (G2).

4. The surveyed trees are categorized by the standard retention categories as defined in BS5837:2012. Such retention categories seek to inform the design process of trees which may be worthy of consideration for inclusion within the proposed development. All work recommendations relate to trees within the context of the current site layout and usage.

5. Note: the report and schedule recommendations form components of a development survey and are not intended to be used as a specific tree hazard assessment.

6. Trees requiring removal to facilitate the proposed development, or which are unsuitable for retention are annotated in red on the Tree Constraints Plan and may be further identified in the work recommendation section of the Tree Schedule.

2. PROPOSED DEVELOPMENT

A. PROPOSED DEVELOPMENT

1. The proposed development layout is for the removal of the existing greenhouse and the installation of a larger greenhouse to the south of the current location.

2. We have overlaid the tree locations on to the supplied development proposal plan; this forms the tree constraints plan (Appendix 5).

3. TREE PRESERVATION ORDERS AND CONSERVATION AREAS

A. SITE DESCRIPTION

1. The site is not located within a Conservation Area.

2. We have undertaken a check for the presence of a Tree Preservation Order (TPO) via the online Wiltshire County Council ArcGIS interactive planning map. This does not indicate the presence of any TPO within or adjacent to the site.
Reference:
https://wiltscouncil.maps.arcgis.com/apps/webappviewer/index.html?id=74a353612a934bd48fee1f2bc564cdd8.

3. The status of all trees within and adjacent to the site boundaries should be verified to the undertaking of tree works or removals.

4. It should be noted that trees located outside of maintained residential grounds and not covered by an active TPO or conservation area are subject to the standard Felling License constraints imposed by the Forestry Commission. These regulations restrict the volume of timber which may be removed in a calendar quarter without a felling licence to 5 cubic metres. This would apply to all trees located outside the boundaries of the maintained gardens.

5. Hedgerow regulations cover the protection of certain established field boundary hedges.

4. IMPACT OF DEVELOPMENT ON TREE STOCK

A. CURRENT TREE STOCK

1. The current tree stock within the survey boundaries as defined by those trees within 10 metres of the proposed development is detailed within Appendix 1 and outlined as follows.

2. Woodland W1 is located to the north of the existing garden boundary fence. Mixed species predominantly in the early mature age class. There is an absence of significant, established mature tree stock along the boundary, T1 to T3 outlined below are the largest trees.

3. The edge of W1 closest to the existing green house to the north of the proposed development location is composed of Common Hawthorn and Silver Birch < 250mm DBH (stem diameter).

4. Tree reference T1 is a mature Oak. It is the largest tree within 10m of the existing garden boundary. The existing green house is located at the outer edge of the crown of T1 with a section of the crown overhanging the greenhouse.

5. Tree reference T2 is the largest Larch within this section of W1, it has slightly poor stem taper ratio. We noted that Larch within W1 show signs of dieback, T2 will require monitoring for any decline in crown condition.

6. Tree reference T3 is a Silver Birch that is larger than the average size of the species within T3. It is located to the northwest of the proposed development location.

7. No other trees are located within the proximity of the development site.

8. Details of tree conditions, management recommendations and retention values are contained within Appendix 1: Tree Schedule

4. IMPACT OF DEVELOPMENT ON TREE STOCK (CONT.)

B. PROPOSED DEVELOPMENT

1. Trees which are within the zone of potential impacts from the proposed development and the likely magnitude of impacts are detailed as follows.

2. No impacts are placed upon tree references T1 to T3 and W1 by the proposed greenhouse.

3. All surveyed tree stock can be retained and protected by the use of protective fencing and standard site management as detailed in sections 5A - 5C of this document.

4. The proposed greenhouse is located to the south of the existing greenhouse location with the existing greenhouse being situated closer to surveyed tree stock than the proposed greenhouse.

5. No direct or indirect conflict with surveyed trees will be created by the proposed development, no increase in potential conflict will be created over that which exists within the current site.

5. SUGGESTED MITIGATION MEASURES

A. GUIDELINES

1. Outline guidance for the protection and retention of trees within the site.
2. Erection of protective fencing as indicated in Appendix 2: Tree Constraints Plan.
3. No material storage should take place in protected areas.
4. No mixing of cement-based or other building materials should take place within the root protection area, no storage of fuels should take place within this area.
5. The tree protection must remain in place until work is completed and there is no risk to the RPAs
6. Once construction has been completed and the landscaping phase is complete the protective fencing may be removed.

B. PROTECTIVE FENCING

1. Once erected all protective fencing will be regarded as sacrosanct and will remain in place until the completion of the construction phase. It shall not be removed, relocated or breached at any time without consultation with the project arboriculturalist.
2. Protective fencing will be constructed of barriers fit for the purpose of excluding construction traffic from root protection areas. Details of appropriate fencing types are included in Appendix 5.
3. Signs will be affixed to every third panel stating, ‘Tree Protection Area Keep Out’. See Appendix 5 for example of signage.
4. All fencing will be securely affixed to avoid movement of fencing during the construction phase.
5. For the sections marked on Appendix 5 fences will be constructed of site fencing of ‘Heras’ type which must be securely braced with additional measures to prevent movement of the fence during construction.
6. Indicative positions for protective fencing are indicated in solid orange on Appendix 2 Tree Constraints Plan.

5. SUGGESTED MITIGATION MEASURES (CONTINUED)

C. GENERAL PRINCIPLES TO AVOID DAMAGE TO TREES.

1. Protective fencing installed to prevent mechanical damage to trees adjacent to the development.
2. An indicative list of recommended practices during construction phase is listed below:
3. Once installed tree protection must remain in place and be observed at all times.
4. No fires within 10m of the crown of any retained trees.
5. Soil levels in rooting areas to be retained with minimal level changes, no greater increases than 300mm from existing levels.
6. No cement mixing/washout to take place within 15m of any retained trees.
7. No chemicals, bitumen etc. to be stored within 10m of any retained trees.
8. Any spillage of fuel, chemicals or contaminated water occurring within 2m of the root protection areas to be reported to project supervisor.
9. No additional underground services have been indicated to us at this time but they may be safely routed to avoid rooting zones, if additional services require routing through the root zones of trees for retention then appropriate sub surface or hand trenching methods should be used and guidance sought prior to any works being undertaken. See BS3857:2012.

D. MITIGATION PLANTING.

No tree removals are required to facilitate the proposed development, there is no requirement for mitigation of removals.

6. CONCLUSION

1. The proposed development site is free of significant tree constraints

2. No trees will require removal and all trees can be retained via standard protective measures.

3. The proposed greenhouse is located to the south of the existing greenhouse, this would move the structure further from W1 / T1 than that which is within the current site.

4. The nature of the proposed development combined with the size and location of the retained trees will not create any increase in above ground conflicts over the current site layout with regards to light reduction or overshadowing.

7. RECOMMENDATIONS

It is recommended that

1. The design and layout of any proposed development reflects the guidance contained within this report both for the management of trees for retention and the protection of same during the proposed development phase and that due consideration is given to the position of any development in relation to retained trees and the removal of trees which are unsuitable for long term retention from the site prior to any development.

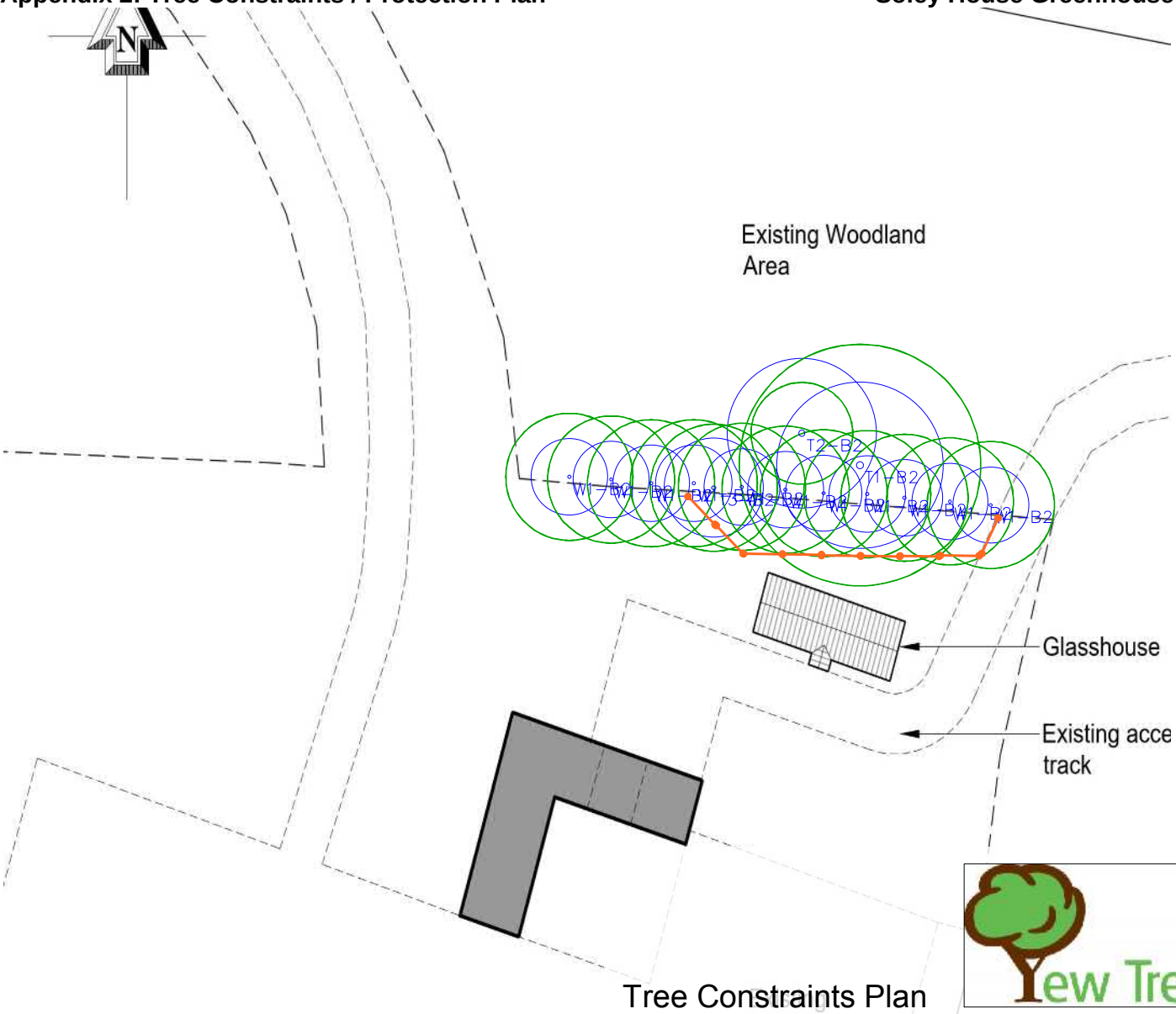
Table 1 **Cascade chart for tree quality assessment**

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

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Yew Tree

Type	Name	Age	DBH	Height	1stB	N	E	S	W	Cond	Life Exp	Comments	Recommendations	RPR m	RPA m^2	Category
W1	Betula pendula (Silver Birch),Alnus glutinosa (Common Alder),Acer pseudoplatanus (Sycamore),Crataegus monogyna (Hawthorn),Larix decidua (European Larch),Pinus sylvestris (Scots Pine),Quercus robur (Common Oak)	EM	250	14	3.5	5	5	5	5	Mix	20+	Woodland edge formed by smaller trees with generally poor stem taper ratio development. Absence of larger trees other than T1 to T3. Single Larch has reduced vigour (located to W of T2). Trees are located at minimum of 1.5m from fence, existing greenhouse located 3.5m from closest trees in W1 (Hawthorns)	Tree can be retained in development via standard protective development	3	28.28	B2
T1	Quercus robur (Common Oak)	M	545	14	7	9.5	9.5	9.5	9.5	Good	20+	Tree set back within W1, located 7.5m from existing greenhouse. Previous crown lifting to 7m with branch tips overhanging existing greehouse (6m to tips from ground level)	Tree can be retained in development via standard protective development	6.54	134.39	B2
T2	Larix decidua (European Larch)	M	490	18	12	4	4	4	4	Fair	20+	Drawn up spindly stem form with high level crown, tree located 4.8m from existing fence	Tree can be retained in development via standard protective development	5.88	108.63	B2
T3	Betula pendula (Silver Birch)	EM	325	15	5	5	5	5	5	Good	20+	Slightly larger tree than average tree at edge of W1	Tree can be retained in development via standard protective development	3.9	47.79	B2



Yew Tree

Tree Constraints Plan

Tree Locations by retention category
T3-A2
T3-B2
T3-C2
T3-U

Root Protection Area (radius)
- RPA Category A
- RPA Category B
- RPA Category C
- Category U tree unsuitable for retention

Restricted Root Potection Area (polygon)

Surveyed Canopy Extents

Tree / Hedge Removal Development

Tree Protection Fence
- 3.5m Heras Panel

Ground Protection / Specific Working Methods

Project Title:
Soley House, Greenhouse
Date of Survey:
21/09/2023
Surveyor:
A. Wood
Date File Created:
10/10/2023
1:500

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Note:
RPA only indicated for significant trees. Small garden trees and juvenile specimens may not be indicated
Retention Categories:
As defined in BS5837: 2012
RPA:
Plotted from individual RPA sheets.
Where restricted rooting conditions are present RPA is also plotted as an area polygon

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e number 100022432

REV	DATE	DRWN	CHKD	REVISION DETAILS
B	06/09/23	HB	ARW	Planning Issue
A	05/09/23	HB	ARW	Planning Issue

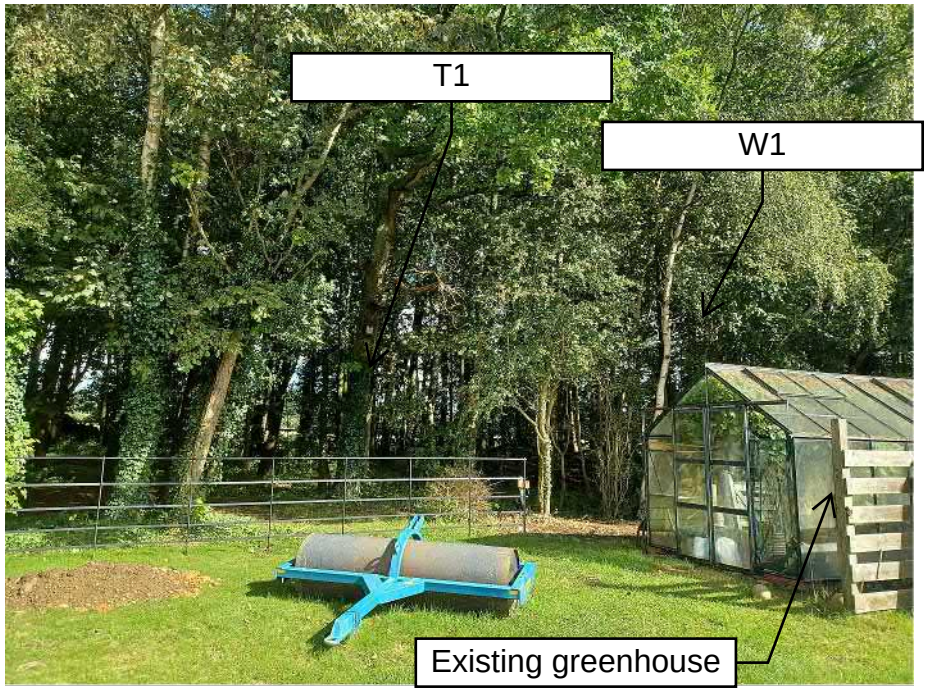
HPA CHARTERED ARCHITECTS

PROJECT TITLE
Soley House
Crooked Soley, Hungerford,
Wiltshire, RG17 0GW

DRAWING TITLE
Site/Block Plan
Glasshouse

© Harrison & Pitt Arc





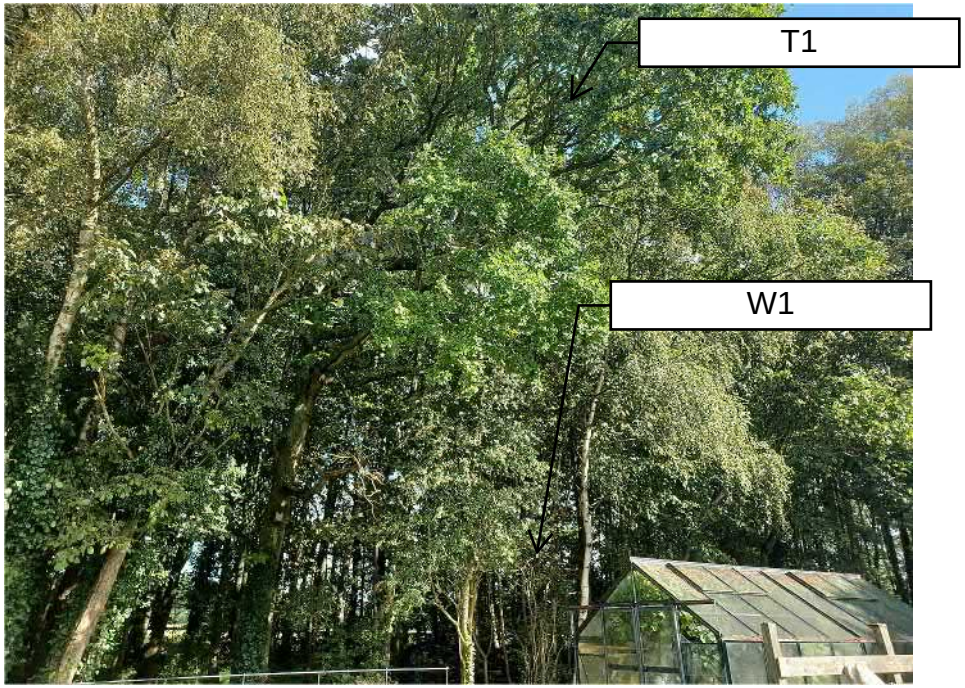




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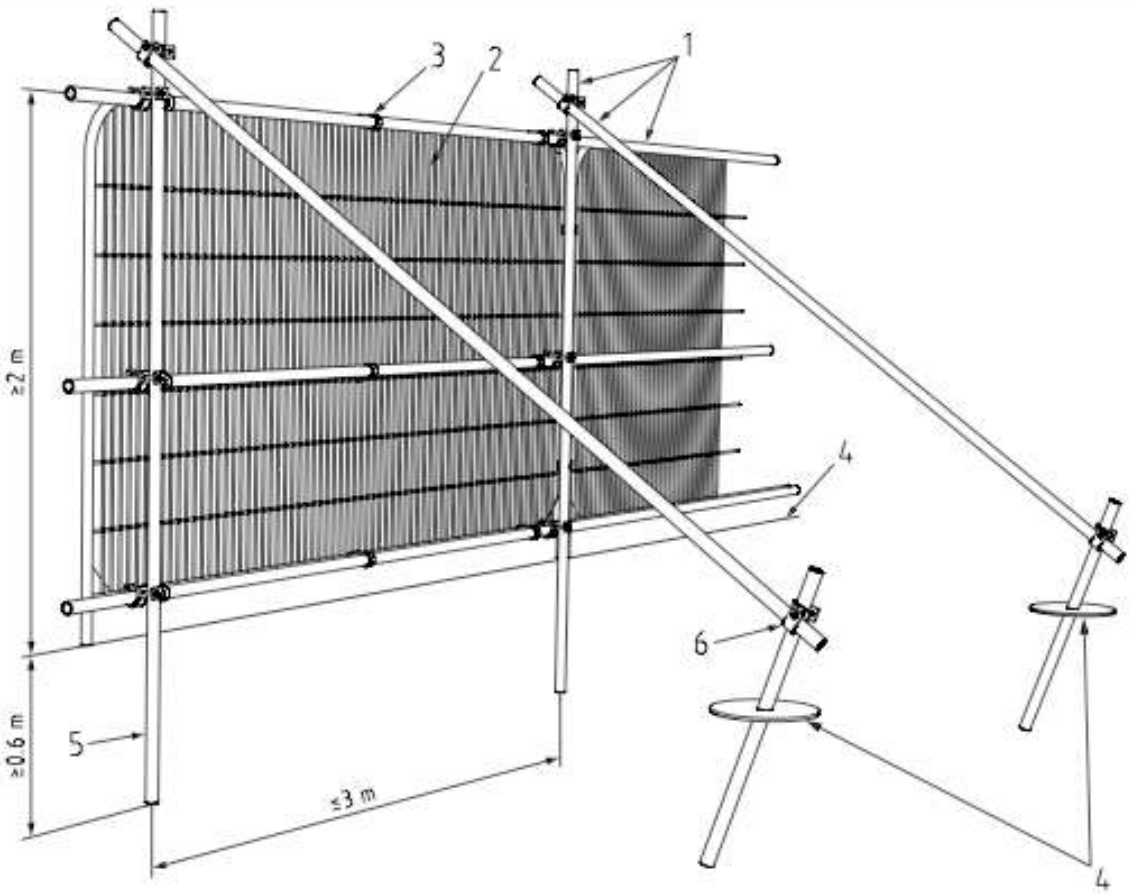
APPENDIX 4

Selected Reference List

The Body Language of Trees by Claus Mattheck & Helge Breloer (1994) London:HMSO.
Diagnosis of ill-health in trees by R.G. Strouts and T.G. Winter. (2000) London:HMSO
Principles of Tree Hazard Assessment and Management by David Lonsdale.(1999) HMSO
BS5837:2012 British Standards Institute
BS3998:2010 British Standards Institute
Trees Their Use, Management, Cultivation and Biology Robert Watson 2006
Tree roots in the built environment (Research for Amenity Trees) (2013) Arboricultural Association
Law of Trees, Forests and Hedges
by Dr. Charles Mynors (Author) Sweet & Maxwell; 2nd Revised edition (14 Dec. 2011)
Assessment of Tree Forks, Assessment of Junctions For Risk Management by Dr. Duncan Slater : Arboricultural Association (Nov 2016)
Collins Tree Guide by Owen Johnson (2006): Harper Collins, London

Tree protective fencing

Figure 2 **Default specification for protective barrier**

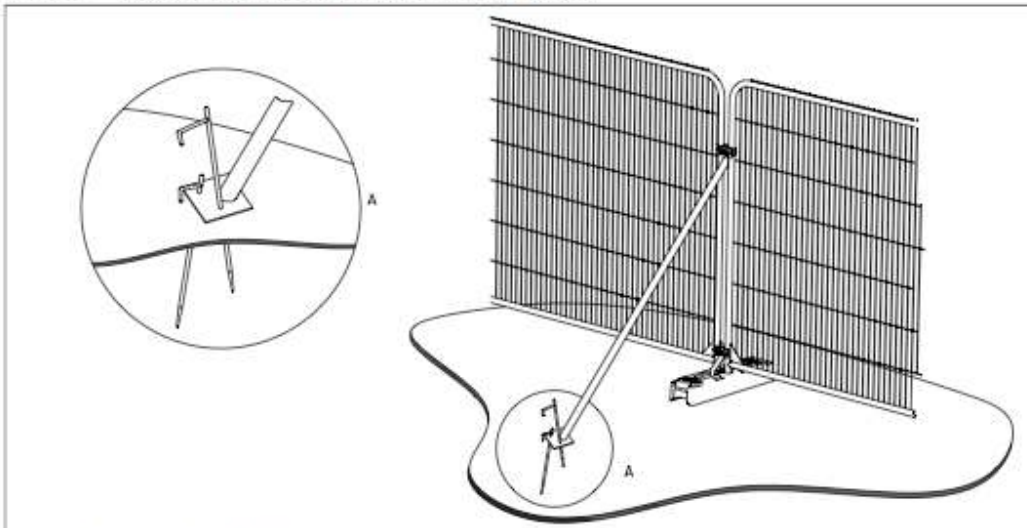


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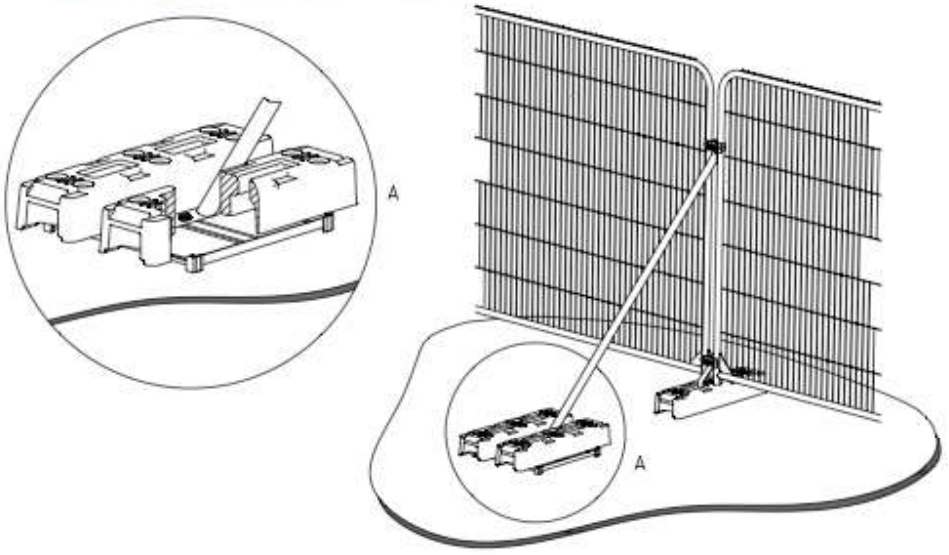
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Tree protective fencing

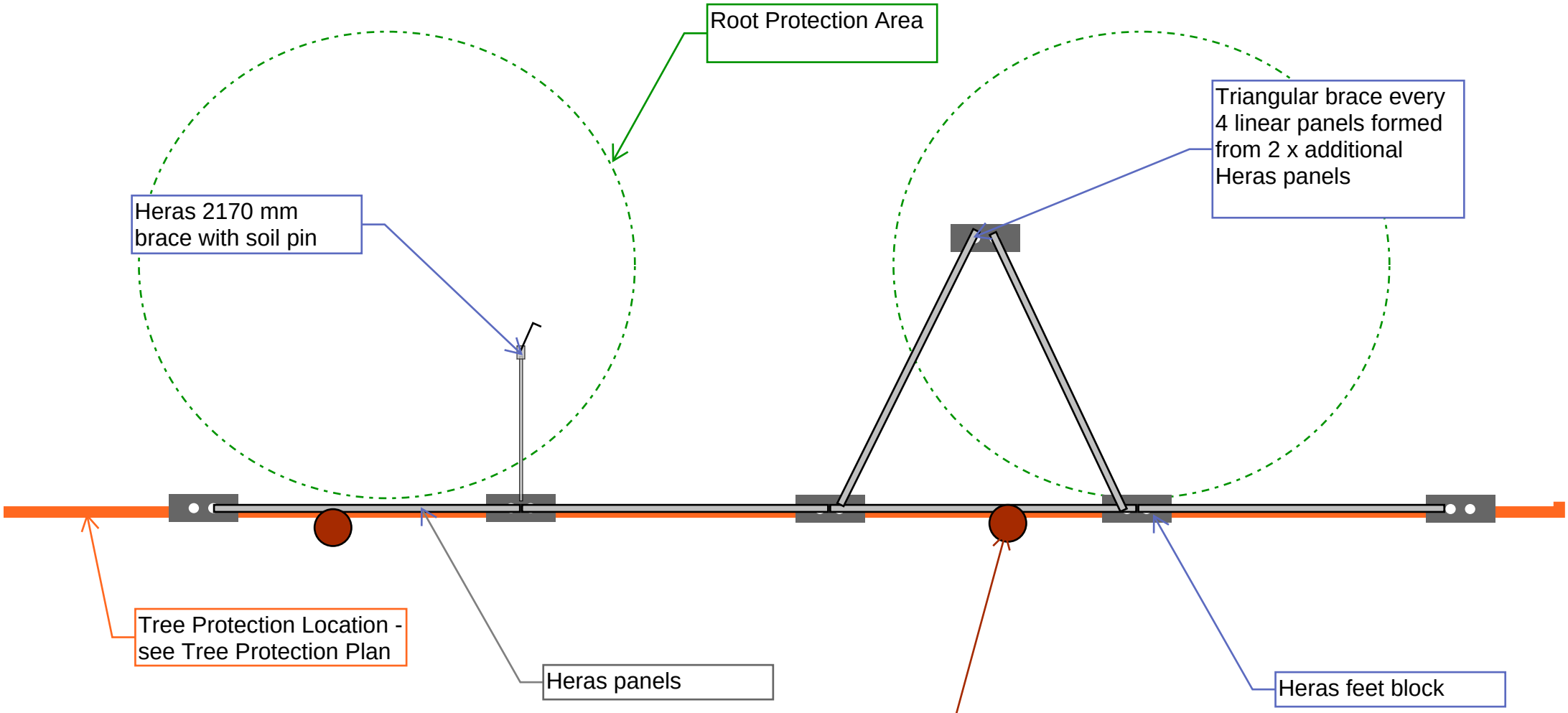
Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray



Tree Protection Fence
Alternative Bracing Detail

Scale: Not to scale illustrative arrangement only Date: 26/07/2023
Author: AW Yew Tree NW Ltd
Version: 1



TREE PROTECTION AREA

KEEP OUT!

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE AGREEMENT OF THE LOCAL AUTHORITY OR ARBORICULTURAL CONSULTANT