WHLandscape
landscape architecture & arboriculture

ROUNDWAY FARM, ROUNDWAY, DEVIZES, WILTSHIRE, SN10 2HZ

TREE SURVEY AND TREE CONSTRAINTS PLAN

FOR

PROPOSED RESIDENTIAL DEVELOPMENT

On behalf of

JIM BUTLER

November 2023

REF: 23.1625

REV: B

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APPOINTMENT

WH Landscape Consultancy Ltd (**WH**Landscape) has been appointed by Jim Butler to undertake a Tree Survey and to prepare a Tree Constraints Plan (TCP) to support the design proposal to develop 3 x barn style dwellings to replace the existing redundant barn structures on land at Roundway Farm, Roundway, Devizes, Wiltshire, SN10 2HZ.

WHLandscape has an established track record of carrying out Tree Surveys for development proposals using British Standard (BS) 5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations*.

This report has been undertaken by: Seb Macleod NC Hort/Arb. L6 Dip Arb. (Lantra Professional Tree Inspection)

Checked by: Will Harley BSc (Hons) CMLI

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1. INTRODUCTION

1.1. WH Landscape has been instructed by Jim Butler to conduct a Tree Survey and provide a TCP. These will support the proposal to demolish the existing redundant barn structures and replace them with three barn style dwellings and associated infrastructure on land at Roundway Farm, Devizes. The survey is to guide the design proposal, outline any constraints that the trees on site pose to its development, and indicate measures required to protect those trees to be retained during the construction process. The report conforms to the guidance set out in BS 5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations*.

1.2 This initial arboricultural report includes a survey of the significant trees (those with stem diameter 150mm, measured at 1.50m above ground level), hedges or groups of trees currently found on the site (outlined by the plan provided), as well as those on adjacent land that could impact on any proposed development. The quality and condition of these trees is to be assessed and categorised. Any management recommendations deemed necessary are to be put forward.

1.3 The trees surveyed are to be categorised A, B or C, for those to be considered for retention, or U for those unsuitable for retention. Further sub-categories of 1, 2 or 3 are given for those to be considered for retention (see Cascade chart for tree quality assessment in Appendix 3). Categorisation will be made in accordance with BS 5837:2012.

1.4 A TCP guided by the above and the below ground constraints that the surveyed trees on site, or adjacent land, may pose to the development proposal, is provided in Illustrative material at plan ARB-1625-01. The constraints to be considered will include the Root Protection Areas (RPA) and Construction Exclusion Zones (CEZ) that trees will require during and post construction if they are to be retained, as well as the current ground clearance and spread, that may affect the design proposal and construction access.

1.5 Following the provision of a design proposal an Arboricultural Impact Assessment may need to be provided to outline and mitigate any potentially adverse tree related impacts that the design proposal poses and to suggest any changes that may benefit the scheme.

1.6 Following the granting of planning consent and prior to the commencement of any construction activity, an Arboricultural Method Statement may need to be provided in order to guide the

application of the special measures required to ensure the protection of retained trees during and post construction.

1.7 The approximately 0.5 hectare area proposed to be developed is situated directly to the south of the border of the North Wessex Downs Area of Outstanding Natural Beauty, on the northern edge of the village of Roundway to the north-east of Devizes. The site is currently composed of a large metal barn structure in its central area with two smaller metal barns in the north-west corner and one to the east of the site, which is otherwise composed of a mixture of concrete hardstanding and scrubby ground cover vegetation. The site is accessed from the highway which flanks the eastern boundary and opens out onto arable land which rises towards the downland to the north. A residential property and stable blocks with paddocks stand directly to the west and south, with the area beyond the southern boundary composed of a small plantation of trees of mixed species. The area under assessment contains few trees within with the exception of a collection of willows on its western side and an ash located between the two small barns in the north-west corner.

1.8 The proposal is to demolish the existing barn structures and construct three barn style dwellings with domestic curtilages within the site. A plan of the design proposal has been provided by Fowler Architecture & Planning drawing no. 230128-02 Rev A dated May 2023. The plan shows the proposed positions of the three dwellings along with service roads and proposed new hedge and tree planting. The design proposal has been laid over the TCP at plan ARB-1625-02 (Design Overlaid).

1.9 The area proposed for development is not within a Conservation Area. No trees on or adjacent to the site are subject to Tree Preservation Orders.

1.10 The soil type for the site is described as ‘Freely draining slightly acid loamy soils’. Therefore, the site does not appear to be on a shrinkable clay with the potential for subsidence damage to be caused, by trees, to new structures. It is recommended that a soil survey of the site is undertaken to establish the exact nature of the soil type.

1.11 A site visit was undertaken on the 5th of April 2023 by Seb Macleod in fair weather conditions.

2. CONSTRAINTS TO PROPOSED DEVELOPMENT

2.1 GENERAL

2.1.1 The trees surveyed represent above and below ground constraints to the proposed development. Above ground constraints include the size and nature of the branching canopy that can influence where structures/utilities can be placed, or that present barriers to access during or after construction. Shade cast by individual trees can be beneficial or a nuisance and needs to be considered. In addition, the potential ultimate height and spread of any younger trees on site, and the future impacts they may have, must also be a consideration.

2.1.2 Below ground constraints are principally concerned with the RPA, or the rooting area, of an individual tree that must be maintained in its current condition (i.e. not excavated, compacted or re-graded) to ensure the continuing health of the tree during and after development. Roots that are 25mm or over must not be damaged in order to ensure the future structural and physiological function of the tree.

2.1.3 New buildings should not be positioned within the RPA of a tree to be retained. No ground should be disturbed, materials stored, or vehicle/pedestrian traffic undertaken within the RPA of a retained tree. It is also the default position that construction access must be outside the RPA of any tree to be retained on site. Above and below ground constraints can be mitigated by felling, or pruning, if justified in the impact assessment. Incursion of works into the RPA of a tree to be retained can be facilitated by special construction techniques, if justified in the impact assessment.

2.1.4 The RPAs are calculated as per Section 4.6 of BS 5837:2012 and, where applicable, are recorded as an area of a nominal circle or a radius of that circle. The British Standard states the following:

- For single-stem trees, the RPA is calculated as an area equivalent to a circle with a radius 12 times the stem diameter.
- For trees with more than one stem, one of two calculation methods is to be used:
- For trees with two to five stems:

$$\sqrt{(stem\ diameter\ 1)^2 + (stem\ diameter\ 2)^2} \ldots\ldots + (stem\ diameter\ 5)^2$$

- For trees with more than five stems:

$$\sqrt{(mean\ stem\ diameter\ 1)^2 x\ number\ of\ stems}$$

2.1.5 In all cases, the stem diameters are measured in accordance with Annex C of BS 5837:2012, and the RPA is determined from Annex D. The RPA is capped at 707 metres (m) squared or a 15m radius.

2.1.6 Where trees are positioned close to adjacent areas of hardstanding, which are impervious to air and water, and where tree roots are unlikely to ingress, the RPA may be offset from the centre of the tree to reflect the areas where the roots are more likely to have established.

2.1.7 RPAs for hedges will normally be set at a distance from the central base of the hedge calculated as half its average height.

2.2 OTHER CONSTRAINTS

2.2.1 Potential constraints to the development of the site include the above ground area occupied by the crowns of the trees, potential shade and debris cast by the trees, working space during development and, if applicable, allowances for future growth of the trees. The extent of these constraints is determined by considering the suitability of the species and its characteristics within the context of the proposed development, plus the existing and future crown spread of the tree. A further consideration is that the crown could be modified by appropriate tree surgery. Site planning and development design must therefore give consideration to these issues in order to prevent future problems arising.

2.2.2 Any remedial works on trees to improve safety or to facilitate construction must be undertaken in accordance with BS 3998:2010 British Standard *Tree Work - Recommendations*. Work must be undertaken by qualified and experienced professionals.

2.2.3 All services should be directed outside the retained trees' RPAs. However, where it is agreed that services can be located within a RPA, they must be hand-dug in accordance with the principles contained within National Joint Utilities Group Guidelines Vol. 4, in a position no closer than four times the stem circumference of the tree and dug down to the required level. Small diameter roots should be neatly cut with clean secateurs, whilst roots over 25mm in diameter, and/or large root masses, must be retained undamaged. Alternatively, if underground services are to run through the RPAs of trees to be retained, specialist construction techniques, such as impact moling, could be employed to install any pipework at a depth greater than 600mm from ground level, where tree roots are unlikely to be found.

2.2.4 No unplanned construction activity whatsoever must be allowed within the RPAs of trees to be retained. This includes storage of materials, unplanned routing of underground services or incursions by vehicles or site operatives unless specified and accompanied by specialist protection measures.

2.2.5 Mixing of cement or concrete, or the storage of fuels must not take place within 10m of the retained trees, nor in any location where a slope in the ground could lead to contamination of the RPA of any tree to be retained.

2.2.6 Fires must not be lit in a position where flames could extend to within 10m of the foliage, branch framework or trunk of any tree to be retained.

2.2.7 Landscape works undertaken within the RPAs must be done so as not to damage shallow roots and are to be agreed by the arboricultural consultant. Heavy mechanical cultivation of the soil must not be undertaken within the RPAs of trees to be retained.

2.2.8 Changes in soil level should not be undertaken within the RPAs of retained trees, unless otherwise agreed in writing with the Local Planning Authority (LPA). This is in order to ensure that the rooting systems, including the delicate non-woody roots, are not inadvertently severed or the roots and rooting zones are not compromised by compaction.

2.3 TREE PROTECTION MEASURES

2.3.1 Tree protection fencing will be required to form a CEZ, to prevent construction activity within the RPAs of trees to be retained, or to protect the crowns of retained trees. This must be constructed from weldmesh panels of at least 2m height and securely fixed with wire or scaffold clamps fixed to a rigid framework. This framework must be constructed from horizontal and vertical scaffold tubes during the construction period, in accordance with the requirements of BS 5837:2012. Examples of the design specification are shown in Appendices 1 & 2.

2.3.2 Where tree protection fencing falls outside the RPAs of the retained trees, robust high visibility plastic mesh barrier is recommended in place of the above-mentioned fencing. This will create a visual deterrent and signify the extent of the CEZ.

2.3.3 The location of CEZ fencing will be determined when the final site layout is agreed. This will provide the minimum protection of the retained trees. Any surfacing within the RPA, be it temporary or permanent, must be of a no-dig design in accordance with the principles of BS 5837:2012**.**

2.3.4 After the erection of the CEZ fencing a minimum of two days' notice must be given to the LPA before any construction, including any groundwork, starts on site. The CEZ fencing must be maintained and retained for the duration of the works or until such time as agreed in writing with the LPA.

2.3.5 Services and drain runs must be kept outside the fenced RPA of the retained trees unless agreed in advance of construction.

2.4 ARBORICULTURAL SUPERVISION

2.4.1 A suitably qualified arboriculturist must be retained during the development period to carry out the following:

- To inspect tree protection fencing once erected prior to construction or ground works starting on site.
- To advise of any issues at the request of the LPA, the property owner or contractor as necessary.

2.4.2 The details of each visit are to be recorded in a site visit pro-forma, with copies circulated to the contractor, developer and the LPA Tree Officer.

3. TREE SURVEY

3.1 TREE SURVEY CRITERIA

3.1.1 This tree survey has been undertaken in accordance with BS 5837:2012 in order to establish and record:

- The principal attributes of those trees on site of stem diameter over 150mm measured at 1.50m from ground level (such as height, stem diameter, height of first branch break, crown spread, crown clearance).
- The Condition, Quality and Value of the trees on site.
- The retention value of those trees as categorised by BS 5837:2012.
- The outline and area of RPA required for those trees to be retained on site, and any other remedial works necessary to ensure a reasonable level of safety; or to facilitate the development in accordance with conditions set out in BS 5837:2012.

3.1.2 The findings of the survey highlight which trees are of particular merit and should be marked as a material constraint in the planning process.

3.1.3 The suitability of trees for inclusion in the proposed development is considered, with particular regard given to their safe, useful life expectancy, and suitability in the site after development is completed.

3.1.4 The Tree Survey was undertaken in accordance with Section 4 of BS 5837:2012, which grades trees into the following categories (See Appendix 3: Cascade chart for Tree Quality assessment):

- A – Trees of high quality with an estimated remaining life expectancy of at least 40 years.
- B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
- C – Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.
- U – Trees in such a condition that they cannot be realistically retained due to poor condition.

Further subcategories are given as follows:

- Mainly arboricultural qualities (1).
- Mainly landscape qualities (2).
- Mainly cultural values, including conservation (3).

3.2 SURVEY LIMITATIONS

3.2.1 This survey was undertaken from ground level using visual assessment techniques only. Physical assessment of suspected decay has been limited to probing with metal rods or sounding with a hammer. No specialist decay equipment or internal investigation tools have been employed during the assessment. No soil samples have been taken in the course of this assessment.

3.2.2 The observations and recommendations presented are based on the knowledge, qualifications and experience of the surveyor only.

3.2.3 All dimensions are measured as far as reasonably practicable, with the plotting of tree locations dependent on the topographical survey provided, or the available satellite coverage at the time of inspection. Stem diameter may have been estimated where trees are on third party land or where stems are inaccessible due to obstructions by undergrowth. Stem diameter may also have been estimated from best measurements available if the tree is ivy clad. The survey methodology follows that prescribed in BS 5837:2012.

3.2.4 Trees are dynamic evolving organisms subject to a range of external influencing factors (particularly the weather) the consequences of which may not always be foreseeable under the scope of this survey.

3.2.5 This survey will be valid for 12 months from the date of inspection and may become invalid within this period if any works are undertaken on or near to trees assessed in the survey. Such works include un-prescribed tree surgery, soil level changes, trenching etc.

3.2.6 Under the terms of the Wildlife and Countryside Act 1981 (as amended), the Countryside Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2010, it is an offence to disturb any protected species, including their habitat or resting place. It may, therefore, be necessary to obtain expert advice in this area prior to the commencement of any works. This is particularly relevant to nesting birds, bats and their roosts. Contractors must be reminded of their responsibilities and should contact the relevant authorities if any signs of bats are found.

3.2.7 The nesting season for most birds runs from 1st March to 31st July. However, this can vary depending on the species and location. During these months, careful inspection must be made before any work commences and works must be postponed if active nests are found.

4. TREE SURVEY FINDINGS

4.1 Altogether 20 trees and 1 hedgerow were assessed and appear in the survey schedule (Table 2). Smaller trees/shrubs or hedges on or adjacent to the site may not have been individually assessed as they were either considered too small or insubstantial to pose an arboricultural constraint to the scheme or were beyond 15m from areas proposed to be developed. The majority of the trees assessed are beyond the wire fence line to the south of the main barn and appear to be on adjacent land. However, they are included in the survey schedule as their crown spreads, RPAs and shading profiles are a potential constraint to the proposal to redevelop the site.

4.2 Trees outside the site that are included in the survey schedule were not directly accessible during the site visit as they were on adjacent land. Many of their values such as stem diameters and crown spread have been estimated from inside the site and the accuracy of these measurements cannot be guaranteed.

4.3 Of the trees and hedgerow assessed, six were rated as B grade retention category and represent good quality arboricultural features on or adjacent to the site, and prominent arboricultural features of the surrounding area. The majority of the trees assessed (twelve in total) were rated as C grade retention category and represent the lower quality trees due to either their young age class and small stature, limited life expectancy or poor structural/physiological condition. Three trees were assessed as U (unsuitable for retention) grade retention category. No trees were assessed as A grade retention category.

4.4 An early-mature (in the first third of its life cycle) ash (T1) which stands directly between the two smaller barns in the north-west corner of the site is suffering from ash dieback (*Hymenoscyphus fraxineus*). This necessitates its categorisation as a U grade retention category feature due its to very limited life expectancy. Ash dieback is a chronic fungal disease of ash trees in the UK and Europe that causes a vascular wilt characterised by leaf loss and crown dieback in infected trees of all age classes which is expected to kill over 80% of trees of the species over the coming seasons. The presence of dieback in the ash assessed is concluded due to sparse bud cover and frequent dead branch tips spaced throughout its outer crowns. The U grade ash will most likely rapidly deteriorate in physiological condition in the coming seasons and will ultimately die from the vascular wilt caused by this disease becoming structurally unstable and hazardous as it declines.

4.5 A lime tree (T9) situated beyond the fence line on the southern boundary and on adjacent land has collapsed partially into the site from storm damage. It is dead or moribund as a consequence of the damage, rendering it U grade retention category.

4.6 A mature goat willow (T15) situated beyond the fence line on the southern boundary and on adjacent land has suffered significant storm damage and its upper crown has partially collapsed, rendering it U grade retention category.

4.7 Some trees assessed are significantly colonised by ivy which is has in some cases hindered the visual inspection of key structural features of stems, basal areas and branch junctions.

4.8 Much of the ground within the site to the west of the main barn structure is composed of concrete based hardstanding. This will have an effect on the root morphology of those adjacent trees as the soil will have become largely anaerobic below much of the concrete based areas. Tree roots (which require access to oxygen in the soil) are unlikely to have colonised far beyond the outside edges of the hardstanding areas. Therefore, in many cases the actual root morphology and RPAs of those aforementioned trees is unlikely to be reflected as a normal circle based on their stem centres (as shown in the TCP) and their root systems are likely to be biased away from the adjacent hardstanding areas. This is particularly pertinent to the RPAs on the eastern sides of trees T5 & T6 as much of the area to their east is currently composed of concrete hardstanding.

4.9 The trees beyond the southern boundary of the site that are included in the survey schedule are those at the northern edge of a small plantation of trees to the south of the red line area composed of trees T7-T20. The majority of these trees have RPAs and crown spreads that represent a constraint to any proposal to develop areas within the site. The shading profiles of these trees along with the shading profiles of trees T3-T6 within the site are a potential constraint to be considered.

4.10 The northern edges of the RPAs of trees T12 and T14 on adjacent land to the south marginally overlap the footprint of the larger barn proposed to be demolished near the southern boundary, with there being potential for the root systems within the marked RPAs of these trees to be negatively affected during the demolition process to remove this structure.

4.11 The B grade willow T6 near the western boundary of the site is the marked to be pollarded (removing the majority of the branching structure to retain a framework that is allowed to regrow) on

the plans of the proposal provided. This will have the impact of reducing the demands on the root system and in effect shrink the critical root zone of the tree temporarily along with the size of its crown.

4.12 Aside the overlap between the footprint of the existing barn structure to be demolished at the southern side of the site and the RPAs of trees T12 and T14 there are no direct conflicts between the design proposal and those trees on or adjacent to the site. The eastern edge of the RPA of the willow T6 is shown to be very close to the western elevations of the proposed new structure to its east. However, this area of the site below the eastern edges of the RPA of T6 is currently composed of concrete hardstanding and it is considered most likely that the actual root morphology of the tree does not exploit the ground up to and against the western edges of the proposed structure.

5. TREE SURVEY CONCLUSIONS/RECOMMENDATIONS

5.1 The majority of the trees and hedgerow assessed are of relatively low-quality C grade retention category or U grade trees which stand beyond the southern boundary of the site on adjacent land. Three trees (T17-T19) beyond the southern boundary are the better-quality B grade retention category trees on the adjacent land to the south. Regardless of the quality and retention category of all trees on adjacent land, they will have to be retained and protected through and beyond the design and development process with particular regard to be given to their RPAs, where all development activity should be either avoided or undertaken to a methodology that reduces the potential for any root damage.

5.2 The U grade ash (T1) is likely to succumb to ash dieback over following seasons and die from the disease. It is therefore recommended to be removed to negate it as a future hazard and a constraint to the development proposals.

5.3 The trees that are located within the site that are worthy of retention (T3-T6) are all situated close to the boundary on the western side of the site and do not offer any significant constraint to its proposed redevelopment as their main potential constraint, their RPAs, do not cover a significant proportion of the potential developable area.

5.4 The principal constraints to the scheme presented by the trees assessed are from those beyond the southern boundary which will have to be retained and protected through the design and development process. The shading profiles of the trees in the small plantation will increase as the trees mature and increase in height which is an aspect that will need to be considered as a future constraint.

5.5 The route of any underground services for proposed dwellings would have to avoid conflicting with the RPAs of all trees proposed to be retained in order to avoid the potential for root damage during its installation.

5.6 The demolition of the main barn will need to be undertaken to a methodology that will reduce the potential for the trees to the south on adjacent land to be damaged during the demolition process particularly the RPAs of the off-site trees T12 and T14.

5.7 The willow T6 is marked to be pollarded as the size of its crown and the current shading it creates is considered to be too imposing in close proximity to the proposed dwelling to its east. This pruning practice will require the cyclical repruning of the crown of the tree every 7-10 years (depending on the rate of regrowth) to maintain the crown in an acceptable structural condition and maintain its size in relation to the context of its position in proximity to the proposed dwelling to its east. It is strongly advised that the pollarding process is undertaken during the dormant season to give the tree its best chance of recovery from the heavy pruning work proposed.

5.8 The trees to be retained through and beyond the demolition/construction process will need to be protected from the development of the site by the establishment of fenced off construction exclusion zones. CEZs will need to be established to exclude all construction activity or the storing or mixing of materials within the sensitive areas of those trees through the entire development process by establishing CEZ fencing of the specification shown in Appendix 1 or 2 depending on the ground conditions present. The proposed position of CEZ fencing is shown as a blue dashed line in the TCP at plan ARB-1625-02 (Design Overlaid).

5.9 A small portion of the extremities of the RPA of the willow T6 (as shown as a normal circle centred on the stem of the tree) is shown to be outside the CEZ and its protective fencing to the east of the tree. This area is outside the CEZ to the west of the proposed structure to allow for construction access during the development process. The ground below is currently composed of concrete hardstanding which is advised to be left in situ until the end of the development process to better protect the root system of the adjacent tree which is considered unlikely to actually be exploiting the ground below the hardstanding surfacing in this area of the site.

6. REFERENCES

British Standards Institute, 2012. *BS 5837:2012 – Trees in relation to design, demolition and construction. Recommendations*. Online: BSI.

British Standards Institute, 2010. *BS 3998:2010 – Trees work. Recommendations*. Online: BSI.

Ben Rose – Arboricultural Association, 2020. *Arboricultural Guidance Note 12 – The use of cellular confinement systems near trees: A guide to good practice.* Available at: <https://www.trees.org.uk/Trees.org.uk/media/Trees-org.uk/Misc%20images/Bookshop/AA_GuidanceNote12_CellularConfinementSystems-Web.pdf>

National Joint Utilities Group, 2007. NJUG vol.4 *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to* trees. Available at: <http://streetworks.org.uk/wp-content/uploads/V4-Trees-Issue-2-16-11-2007.pdf>

Soilscapes, 2023. *Soilscapes Map*. Available at: <http://www.landis.org.uk/soilscapes/>

TABLES

Table 1 Tree Survey Key and Schedule

Tree/Tag No: Individual trees will be denoted as T1, T2 etc. on plans or diagrams. Groups of trees too numerous to individually survey or groups comprising of mainly trees of a stem diameter less than 150mm will denoted as G1, G2 or W1, W2, etc. Hedgerows will also be shown as groups denoted as H1, H2, etc. Tree stumps denoted by S. Individual trees located in a group or hedgerow can still be assessed individually.

Species: using common and scientific name.

Measurement Conventions:

1. Height, crown spread, and crown clearance is recorded to the nearest half metre (crown spread is rounded up) for measurements up to 10m and to the nearest whole metre if over 10m.
2. Stem diameter is recorded in millimetres rounded to the nearest 10mm.
3. Any estimated dimensions (e.g. for inaccessible tress or those located on adjacent land) are suffixed by "#".

Tree height measured using an electronic clinometer. Site conditions may render this technique unpractical in which case an estimated height will be suffixed by"#".

Stem Diameter: normally measured at 1.5m from ground level or using techniques as stated in Annex C of BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. If estimated denoted by #.

Ivy clad trees will be noted as without removing the ivy a stem diameter will have to be estimated from best measurement available.

Age Class: Y - a young tree in first third of life cycle.
EM - an early mature tree in second third of life cycle.
M - a mature tree in the last third of its life cycle.
OM - an over-mature tree in decline due to age.

Physiological Condition:
Good (G) - tree appears to be in a satisfactory physiological condition showing no signs of poor health.
Fair (F) - may be showing some minor signs of stress.
Poor (P) - slightly compromised showing significant signs of stress i.e. crown retrenchment.
V. Poor (VP) - significantly compromised e.g. advanced retrenchment.
D - dead.

Structural Condition: (Crown, stem and base of tree each given a value)
Good (G) - tree appears to be in a satisfactory structural condition with no significant defects found.
Fair (F) - some defects, but of low significance.
Poor (P) - slightly compromised e.g. poor branch unions found or evidence of decay.
V. Poor (VP) - profoundly compromised and imminent failure likely.
- cannot be assessed due to ivy/vegetation cover.
D/W -deadwood.

Estimated Remaining Contribution: Measured in years: <10 (under 10 years), >10 (over 10 years), >20, >40.

Retention Category: Denoted as U, A, B, C with sub-categories 1, 2, 3. as defined in Table 1 of BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*.

Root Protection Area (RPA): Radius given in **m.** Area given in **m^2.**

Table 2 BS5837 Survey Schedule

Site: Roundway Farm, Devizes

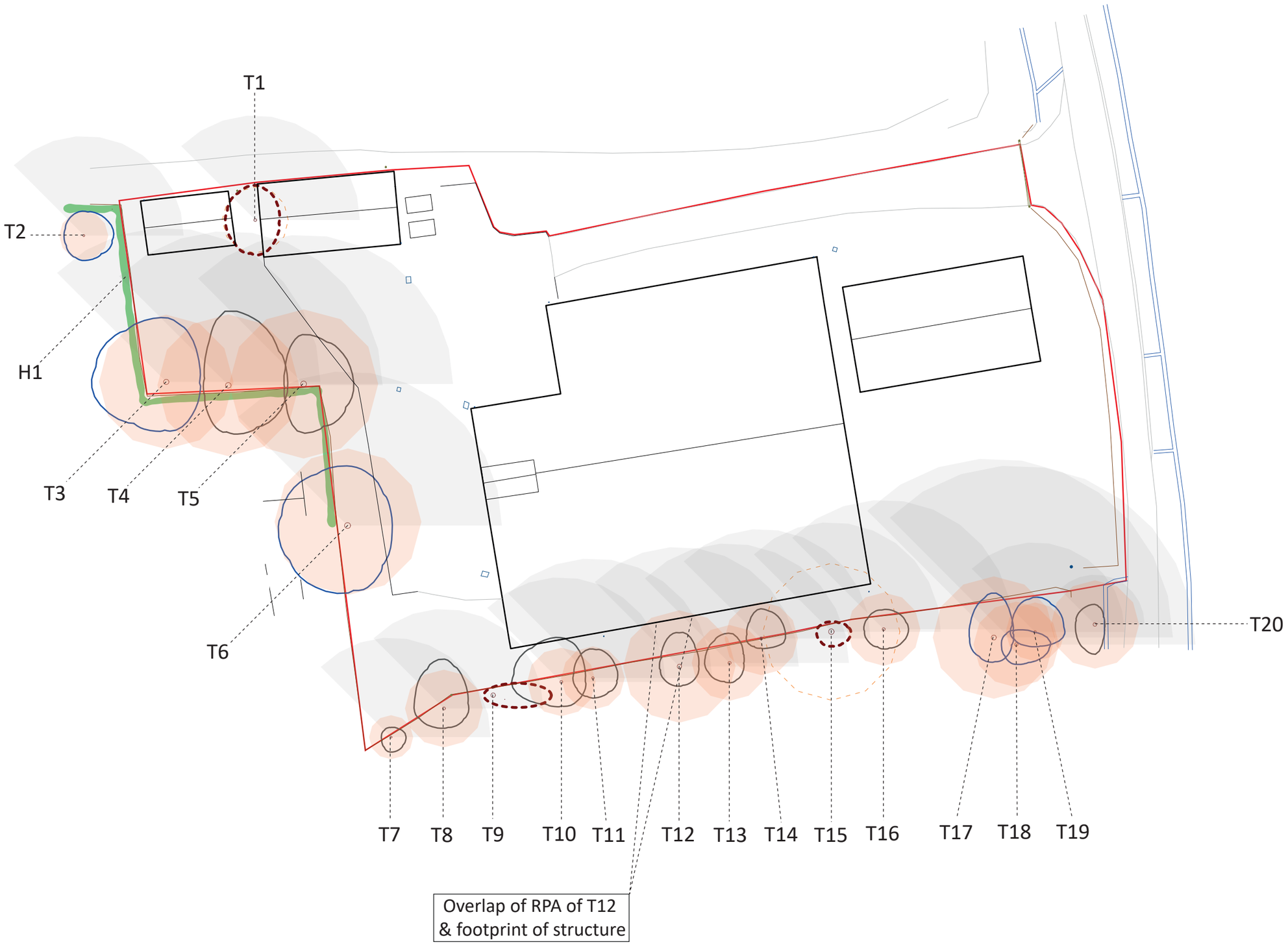
Client: Jim Butler

Date: 5th April 2023

Tree/Tag. No	Species	Tree Height (m)	Stem Diameter (mm)	Crown spread (m)				Height & Direction of 1st Branch	Min. Crown Clearance (m)				Life Stage	Physiological Condition	Structural Condition: CROWN/STEM/BASE General Observations: Preliminary Management Recommendations	Estimated Remaining Contribution	Retention Category	RPA R (m)	RPA A (m^2)
				N	E	S	W		N	E	S	W							
T1	Ash *Fraxinus excelsior*	10.5	270	3.5	2.5	3.5	3	2s	2	8	5	7	**EM**	**VP**	**F/F/F** Showing ash dieback symptoms >25% loss of bud cover Crown conflicting with adjacent buildings to east and west		U	3.3	34
T2	Dawn redwood *Metasequoia glyptostroboides*	10	200	2.5	3	2.5	2	-	1	1	1	1	**EM**	**G**	**G/G/#** On adjacent land		B1	2.4	18
H1	Western red cedar hedge *Thuja plicata*	3	-	-	-	-	-	-	-	-	-	-	**Y**	**G**	**G/G/G** On adjacent land		C2	-	-
T3	Crack willow *Salix fragilis*	15.5	550	6.5	3.5	5	7.5	2e	8	10	6	4	**M**	**G**	**G/G/G**		B1	6.6	137
T4	Goat willow *Salix caprea*	15.5	580	7.5	6	5	2.5	1s	1.5	1	4	6	**M**	**G**	**G/G/G**		C1	6.9	150
T5	Crack willow *Salix fragilis*	15	610	5	5	5	2	2e	4	1.5	3	10	**EM**	**F**	**G/G/G** Ivy clad stem Minor deadwood throughout crown		C1	7.2	163
T6	Crack willow *Salix fragilis*	15.5	600	6	4.5	7	7	2w	4	2	4	4	**M**	**G**	F/#/# Heavily ivy clad		B1	7.2	163
T7	Common lime *Tilia x europaea*	10	180	1	1.5	1.5	1	2.5w	6	4	5	7	**EM**	**G**	**G/G/G** Beyond fence line		C1	2.1	14
T8	Common lime *Tilia x europaea*	10	220 230	5	2.5	2	3	0.5s	1	3	5	0.5	**EM**	**G**	**G/G/G** Codominant twin stems from base with included bark Beyond fence line		C1	3.9	48

T9	Common lime *Tilia x europaea*	-	-	-	-	-	-	-	-	-	-	-	**D**	**D**	**-/-/-** Collapsed partially into the site from storm damage Beyond fence line		**U**	-	-
T10	Common lime *Tilia x europaea*	10.5	280	4.5	2.5	2.5	5	1.5s	5	6	6	6	**EM**	**G**	**G/G/G** Crown conflicting with building to north Beyond fence line		C1	3.3	34
T11	Western red cedar *Thuja plicata*	12	260	3	2.5	2	2	-	0	0	0	0	**EM**	**G**	**G/G/G** Beyond fence line		C1	3.0	28
T12	Norway maple *Picea abies*	12	460	3.5	2	2	2	-	1	6	1	1	**EM**	**G**	**G/G/G** Beyond fence line		C1	5.4	92
T13	Norway maple *Picea abies*	12	310	3	1.5	2	2.5	-	1	10	10	1	**EM**	**G**	**G/G/G** Beyond fence line		C1	3.6	41
T14	Western red cedar *Thuja plicata*	11	300	3	2.5	1	1.5	-	0	0.5	8	0	**EM**	**G**	**G/G/G** Beyond fence line		C1	3.6	41
T15	Goat willow *Salix caprea*	11	560	1	2	1.5	1.5	1.5	8	2	6	6	**M**	**P**	**F/VP/F** Heavily storm damaged, partially collapsed structure Beyond fence line		U	6.6	137
T16	Goat willow *Salix caprea*	13	300	2	2.5	2	2	1.5s	3	1	3	6	**EM**	**F**	**P/P/#** Multiple storm damaged limbs in upper crown Beyond fence line		C1	3.6	41
T17	Common alder *Alnus glutinosa*	18	400 300	4.5	2	2.5	2.5	3w	2	11	11	10	**M**	**G**	**G/G/G** Codominant unions from base Beyond fence line		B1	6.0	113
T18	Common alder *Alnus glutinosa*	18	350	1.5	3.5	2	1.5	19n	12	10	10	14	**M**	**G**	**G/G/G** Beyond fence line		B1	4.2	55
T19	Common lime *Tilia x europaea*	9	180 160	3.5	3	1.5	2.5	1w	1	1	3	1	**EM**	**G**	**G/#/F** Codominant twin stems Beyond fence line		B1	3.0	28
T20	Elder *Sambucas nigra*	5	250 260	2	1	3	2	-	1	1	1	1	**OM**	**F**	**F/#/#** Heavily ivy clad On highway verge		C1	4.2	55

ILLUSTRATIVE MATERIAL



KEY:

Tree Retention Categories

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

The Tree Retention Categories symbols shown in the key are for reference and may not always be present on the plan.

Other Plan Features

- Shading Arc
- Root Protection Area (RPA)
- RPA of U Grade Tree
- Hedge
- Extent of Development Area

The Tree Retention Categories symbols shown in the key are for reference and may not always be present on the plan.

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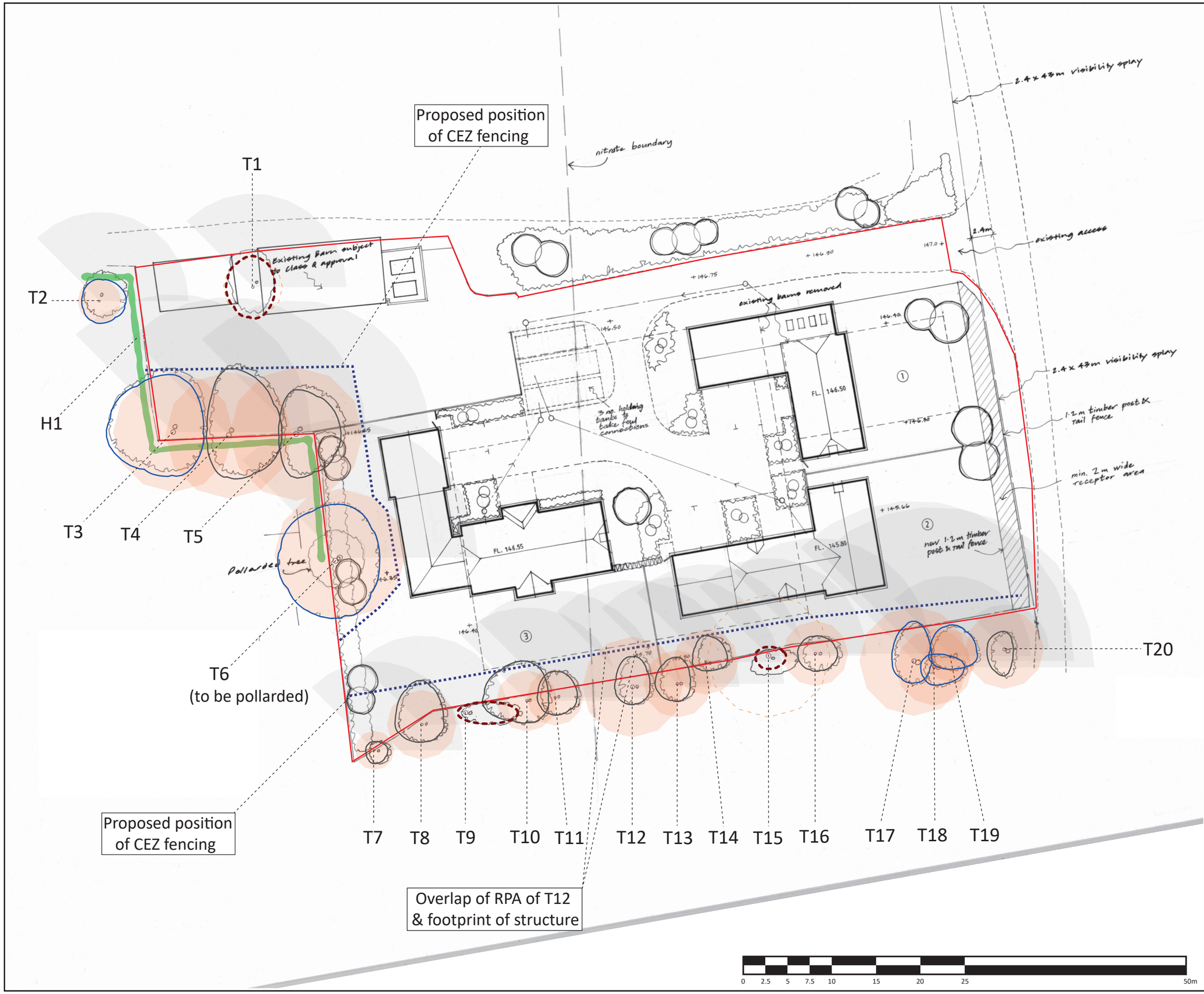
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Project: Roundway Farm, Devizes			
On behalf of: Jim Butler			
Drawing title: Tree Constraints Plan			
Drawing number: ARB-1625-01	Rev:	Date: Oct 23	
Scale: 1:400 @ A3	DB: SM	CB: WH	



KEY:

Tree Retention Categories

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

The Tree Retention Categories symbols shown in the key are for reference and may not always be present on the plan.

Other Plan Features

- Shading Arc
- Root Protection Area (RPA)
- RPA of U Grade Tree
- Hedge
- Proposed Position of CEZ Fencing
- Extent of Development Area

The Tree Retention Categories symbols shown in the key are for reference and may not always be present on the plan.

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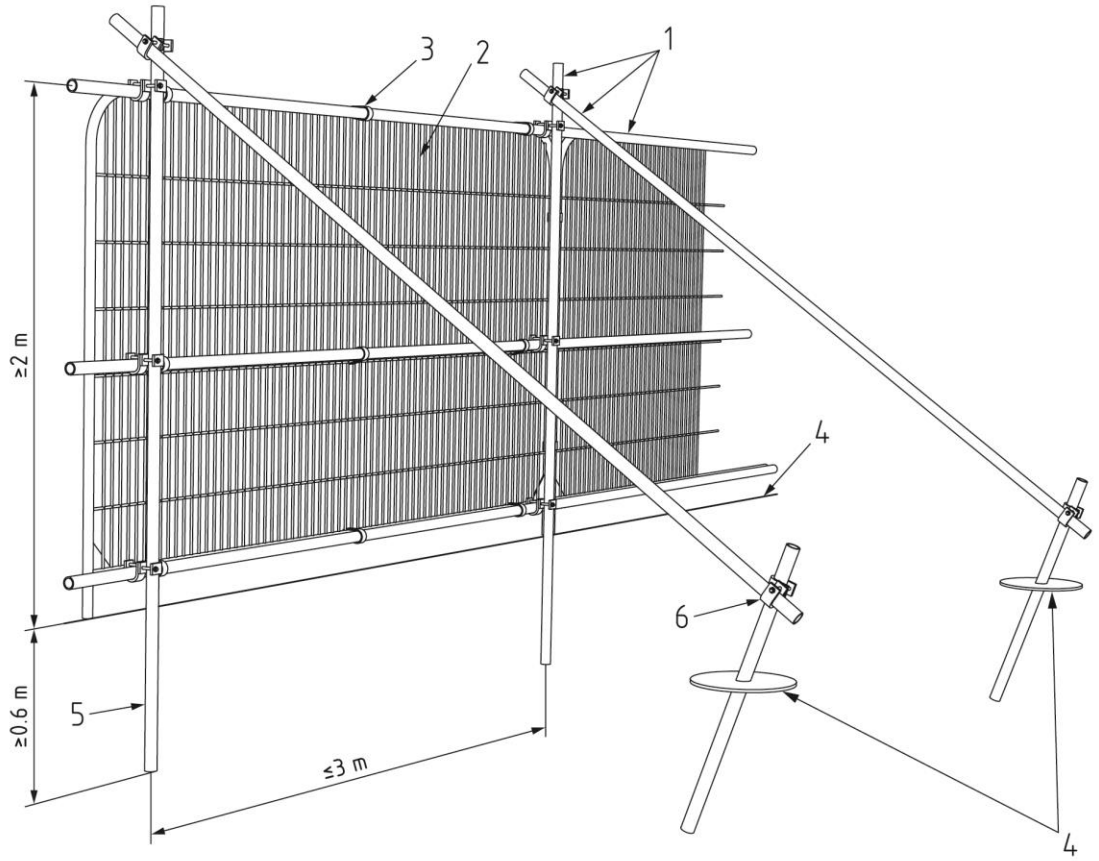
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Project: Roundway Farm, Devizes			
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Scale: 1:400 @ A3	DB: SM	CB: WH	

APPENDICES

APPENDIX 1: BS5837:2012 DEFAULT SPECIFICATION FOR PROTECTIVE BARRIER



Key

1 Standard scaffold poles

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

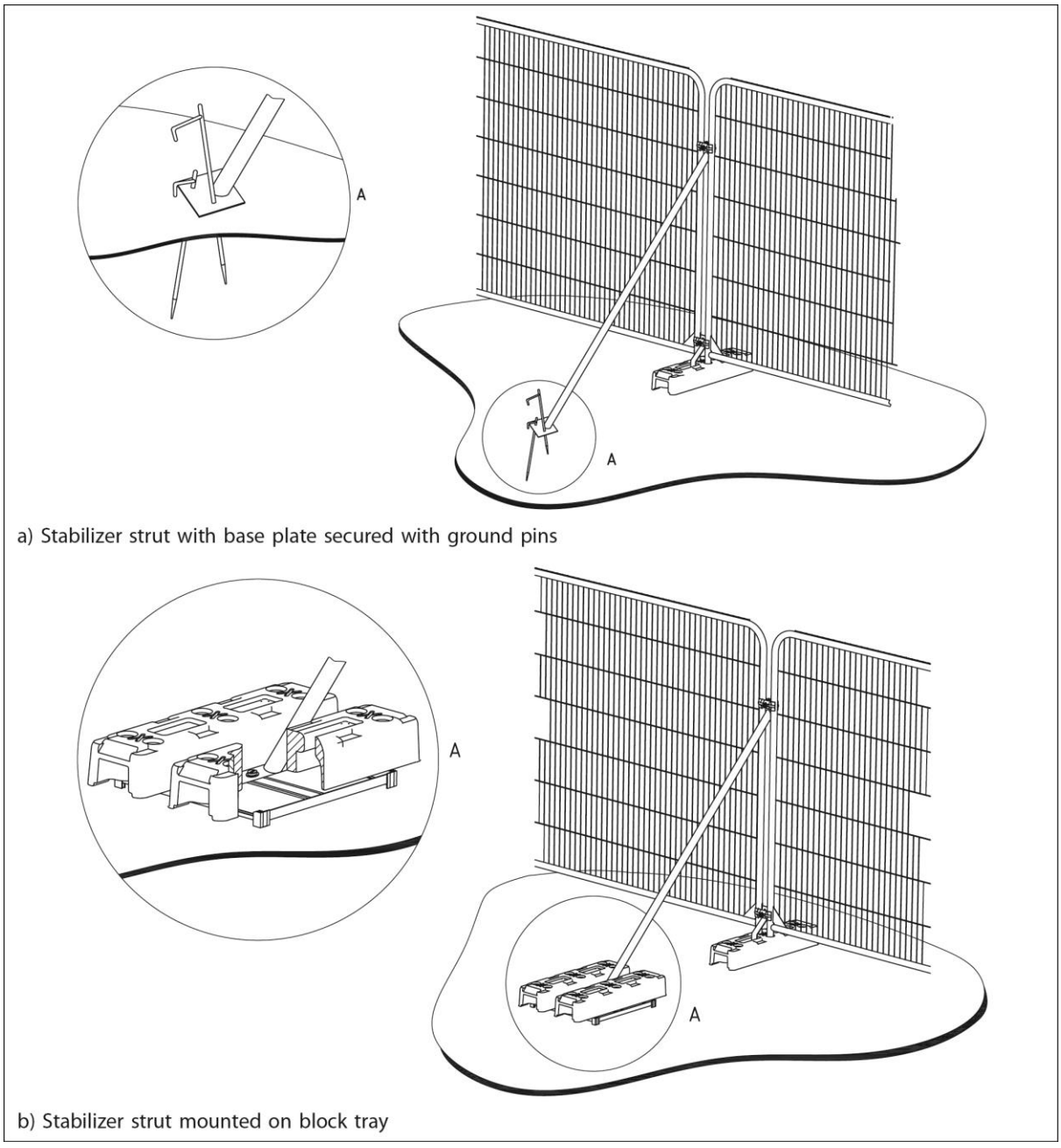
3 Panels secured to uprights and cross-members with wire ties

4 Ground level

5 Uprights driven into the ground until secure (minimum depth 0.6 m)

6 Standard scaffold clamps

APPENDIX 2: BS5837:2012 ABOVE GROUND STABILISING SYSTEMS



a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

APPENDIX 3: CASCADE CHART FOR TREE QUALITY ASSESSMENT

Category and definition	**Criteria (including subcategories where appropriate)**		
Trees unsuitable for retention			
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.*		
Trees to be considered for retention			
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years.	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 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.