



## **Woodland Lodge, Church Avenue, Bristol**

### **Arboricultural Report containing:**

- **Arboricultural constraints**
- **Arboricultural impact assessment (AIA)**
- **Tree protection**
- **Arboricultural method statement**



*On behalf of*  
**Seb Hoyle.**

*Prepared by:*  
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## 1.0 Instructions/Scope

- 1.1 Silverback Arboricultural Consultancy have been instructed to compile an arboricultural report containing tree survey, tree constraints plan, arboricultural impact assessment, tree protection plan and arboricultural method statement regarding trees growing within the garden of Woodland Lodge, Church Avenue, Stoke Bishop, Bristol. This report is intended to accompany a planning application relating to the construction of an extension to the rear of the existing dwelling. This document has been produced to demonstrate that the implications of the proposed development, to the existing trees, has been fully considered during the detailed design process.
- 1.2 Recommendations for the safeguarding of trees in close proximity to development are set out in, BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. We have therefore carried out the assessment of the trees in accordance with that document
- 1.3 Specifically, this report and the accompanying information are supplied to:
- Identify the constraints that trees on and adjacent to the site present to the development of the site, to inform the site design process.
  - Present information regarding the above ground constraints (crown spreads) and below ground constraints (Root Protection Areas – RPAs), in a Tree Schedule and on a Tree Constraints Plan
  - Assess the impact of the proposed development on the trees on or adjacent to the site, and the impact that retained trees will have on the site post development.
  - Identify trees to be removed, trees to be retained and specify measures necessary to protect retained trees during the construction phases of the development.
  - Recommend necessary remedial tree works to be undertaken to trees that will be retained prior to commencement of the construction phases of the development.
  - Present information regarding the location of protective barriers or fencing and ground protection on a Tree Protection Plan
  - Identify special engineering, excavation or protection measures intended to minimise the impact on retained trees where the site design layout requires a breach of the Root Protection area, (RPA)

- Provide a Preliminary Arboricultural Method Statement for the recommended works detailing measures which should be implemented to protect retained trees during the construction phases of the development.

1.4 This report is based on a ground level assessment of the trees. Except where stated, all dimensions are estimated. We were not presented with any information on the soil type and no soil samples have been taken. An arboricultural consultant visited the site on Thursday 29<sup>th</sup> April 2021. The weather was bright with good visibility.

1.5 Documents Provided

- Topographic survey dwg N<sup>o</sup> 156/3063/1
- Proposed site layout dwg N<sup>o</sup> GA 2330 08

## 2.0 Survey Methodology

2.1 The survey includes tree and shrubs with a stem diameter over 75mm at 1.5m height, located within the area shown on the plan included in this report.

2.2 All inspections were made from ground level with the use of binoculars, sounding hammer and metal probe where necessary, using the Visual Tree Assessment method (Mattheck & Breloer 1994). The presence and condition of bark and stem wounds, cavities, decay, fungal fruiting bodies and any structural defects that could affect the structural integrity of the trees have been noted.

2.3 Tree numbers have been noted on the plan. The following details were recorded for each tree and are included in the tree schedule sheets accompanying this report:

**Number:** an identity number for each tree, prefixed with a 'T' which cross references locations shown on the plan with the tree survey sheets. Where a number of trees, normally of the same species, are located close together and are similar in character and requirements, they have been treated as a Group under a single Number, prefixed with a 'G'.

**Species:** common name and botanical name in *italics*

**Tree Height:** approximate height in metres (*potential height in brackets*)

**Stem Diameter:** diameter measured in millimetres, taken at 1.5m above ground. Where the tree is multi-stemmed the diameter is calculated in accordance with BS5837:2012.

(# estimated dimensions for off-site or inaccessible trees)

**Crown spread:** approximate spread in metres taken at the four main compass points N, S, E, W

**Crown clearance:** approximate height from ground to lowest part of canopy

**Age class:** Young, Semi-Mature, Early Mature, Mature, Over-Mature, Veteran

**Structural condition:** Good, Fair, Poor

**Physiological condition:** Good, Fair, Poor, Dead

**Observations :** observations noted during tree inspections

**Preliminary recommendations;** recommended action to ensure the health and safety of the tree.

**Remaining contribution (years):** <10, 10+, 20+, 40+

**BS Cat- category grading in accordance with BS 5837:2012**

**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 realistically be retained as living trees in the context of the current land use for longer than 10 years.

**BS Sub Cat - sub-category grading in accordance with BS 5837:2012**

1- Mainly arboricultural qualities

2- Mainly landscape qualities.

3- Mainly cultural values including conservation.

**RPA – Root Protection Area** - measured in metres from the centre of the tree stem.

## 2.4 Presentation of the Data Collected

- Data collected regarding individual trees and groups of trees are presented in the Tree Schedule table in appendix 1 in accordance with BS5837:20012 Trees in Relation to Construction – Recommendations.
- The data significant to the proposed site layout is also presented on the Tree Constraints Plan (Drawing Number 210511-WL-TCP-NB (appendix 2) and Arboricultural Impact Assessment Plan (Drawing Number 210511-WL-AIA-NB (appendix 3).
- All other relevant data are presented within the main body of this report.

- Trees have been allocated an individual tree number. This tree number is used to identify individual trees and/or groups of trees throughout this report, within the Tree Schedule and on all plans presented in the appendices of this report.

### **3.0 Report Limitations**

- 3.1 Trees are living, dynamic organisms that can be affected by external conditions. It is therefore not possible to state with any certainty that a tree is safe.
- 3.2 No internal decay devices, or other invasive tools to assess tree condition, were used. No soil excavation or root inspection was undertaken.
- 3.3 This report has not considered the effect that trees or vegetation may have on the structural integrity of adjacent buildings or structures.
- 3.4 The survey contained within this report is not a tree safety inspection. It has been carried out in order to inform the planning process. Where clear and obvious hazards have been observed, these have been addressed in the recommendations contained within the tree schedule sheets (appendix 1). A full assessment of the levels of risk posed by trees would be informed by considering site use together with hazards present within the aerial parts of a tree(s). Changes in site use are likely to occur during, and result from, the proposed development. In the light of these changes, regular tree risk assessments are advised.
- 3.5 Tree condition can change rapidly, the recommendations contained within this report are based on the condition of the tree at the time they were inspected. Any amendments to the design or position of the proposed development will invalidate this report.
- 3.6 While this appraisal is not a tree risk assessment it takes into account any structural defects of the inspected trees in order to inform conclusions with regard to their retentive worth.

### **4.0 Legal duty**

- 4.1 It is the responsibility of the tree owner to ensure that their tree(s) is in a safe and stable condition, including the effects of root activity, through duty of care in the *Occupiers Liability Act (1957 & 1984)*.

- 4.2 The Wildlife and Countryside Act, 1981 makes it an offence to disturb a nesting bird or recklessly endanger a bat or its roost. Professional advice should be sought, where relevant, before undertaking any recommended works.
- 4.3 Searches of Bristol City Council online mapping system showed the site is within a Conservation Area and several trees are covered by Tree Preservation Orders. Written consent will be required from Bristol City Council prior to the commencement of any works to the trees.
- 4.4 Under the Tree Preservation Order/ Conservation Area legislation the removal of deadwood and dead trees is exempt from the requirement to obtain prior written consent from the local planning authority (LPA). It is however recommended to give the LPA five days notice, in writing, prior to the commencement of these works.

## **5.0 Tree and Site Assessment (to be read in conjunction with the survey schedule sheets)**

- 5.1 The proposed development is for the construction of an extension to the rear of the existing building. The proposed extension is to be positioned on the site of the original stone patio.
- 5.2 Access to the proposed development area is restricted by the number of existing trees within the rear garden of the property. It is therefore intended to deliver all building materials via Mariners Path which runs along the southwest boundary of the site. Materials will be lowered into the site over the stone boundary wall and stored on a section of existing patio which is to be retained within the proposed development.
- 5.3 The proposed protective fencing and temporary ground protection have been designed to allow pedestrian access, to the development area, from the rear garden of the property.
- 5.4 Twenty-seven trees were surveyed. Of the trees surveyed one tree was categorized **A**, nine trees were categorized **B**, one tree was categorized **U**, the remaining trees were categorized **C**. The trees were assessed and categorized in accordance with the Cascading Chart of Tree Quality Assessment contained within BS5837:2012.

## 6.0 Arboricultural Constraints

- 6.1 Trees have a widely spreading, shallow root system. In most cases, the majority of tree roots are situated within the top 600 mm of soil although some roots may extend down to 2m. Small feeder roots can also be expected to extend beyond the outer edge of the canopy. Roots can therefore be easily damaged by construction activity.
- 6.2 Constraints on the design of the development are presented in the tree schedule sheets (appendix 1) Tree Constraints Plan (appendix 2) and the Arboricultural Impact Assessment Plan (appendix 3). These constraints are also considered in the main body of the report below and recommended remedial works and mitigating measures.
- 6.3 The Tree Constraints Plan (TCP), (appendix 2), shows the Root Protection Areas (RPAs) for the individual trees identified in the tree schedule tables. This represents the minimum area in m<sup>2</sup> which ideally, should be left undisturbed around each tree were it to be retained. The TCP also shows a representation of the crown spread of each tree measured in four cardinal directions. The RPA has been calculated in accordance with Section 4.6 of BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.

## 6.4 Trees Identified for Retention and Removal.

It is proposed to retain and protect all existing trees throughout the proposed development.

### 6.4.1 Trees Outside Site Boundary

There are no trees outside of the site boundary, which will be affected by the proposed development.

## 7.0 Arboricultural Impact Assessment

- 7.1 The position of the proposed extension slightly encroaches into the calculated Root Protection Area of T07. Any excavation or soil compaction in this area could potentially lead to root severance or damage. This could subsequently lead to a reduction in the trees ability to take up water and nutrients, which may lead to a deterioration in the tree's health.

**It is considered that the extent of encroachment is minimal and should not impact on the health or longevity of the tree. “Soil compaction, excavations and soil level increases will damage roots and the closer to the trunk they occur the greater the damage inflicted on the tree. Nevertheless, healthy trees are generally able to withstand the loss of some roots, a**



*maximum of about 20% of the rooting area without noticeable effects (Helliwell and Fordham 1992)*

7.2 Working area for the construction of the extension and erection of scaffolding will be required within the calculated Root Protection Area of T07, T20 and T23. Any excavation or soil compaction in this area could potentially lead to root severance or damage.

**Where working area is required within the Root Protection Area of T07, T20 and T23, temporary ground protection will be installed. in accordance with BS5837:2012 Section 6.2.3.3.**

7.3 Any encroachment into the Root Protection Area (RPA) of retained trees could lead to ground compaction resulting in root damage.

**Protective fencing, in accordance with BS5837:2012 will be erected to prevent any unauthorised access into the Root Protection Area (RPA) during the development works.**

7.4 Storage and mixing of construction materials could lead to soil compaction of ground contamination through spillage.

**All storage and mixing of materials will be undertaken outside the Root Protection Area (RPA) of the retained trees. If considered necessary, due to ground levels, a suitable water proof ground covering with bunds at the edges to prevent leakage will be laid over the storage, mixing area.**

7.5 Overhanging and low branches could potentially be damaged during the erection of scaffolding or during the delivery of materials to site.

**It is intended to re-coppice T12 and T13 to facilitate the proposed development. The protective fencing will enclose the branch spreads of the remaining trees preventing any potential damage to the tree canopies**

7.6 Service runs in association with the proposed project have been planned outside of any Root Protection Area of retained trees.

**Should this change, installation of drainage or services runs will be in accordance with Section 7.7 (Underground and above-ground utility apparatus) of BS5837:2012.**

7.7 **Shading:-** Potential shading of buildings by retained trees can lead to pressure for the pruning or removal of the trees. *BS5837: 2012 par 5.3* states that proposed buildings should be designed to take account of existing trees, their ultimate size and density of foliage, and the effect that these will have on the availability of light.

**It is considered that any potential shading will be acceptable within the current guidelines.**

7.8 **Future growth:-** Future extension growth of branches can result in the continuous whipping of branches against the fabric of a building or damage to the roof tiles. Structures should therefore be located with due consideration for a tree's ultimate growth.

**Trees cut back to facilitate the development will be maintained as the smaller size as part of ongoing management.**

## 8.0 Tree Protection

The trees to be retained on site during and after development as listed in Section 6.4 will require both above and below ground protection. Above ground protection may involve remedial tree surgery works. These works, where applicable, are presented in the Tree Schedule Sheets (appendix 1) and are discussed in Section 8.1 below.

8.0.1 Below ground protection measures, based on the root protection areas (RPA), indicated in the Tree Constraints Plan (appendix 2), will involve the erection of tree protection barriers as discussed in Section 8.2. Where the proposed site layout encroaches into the RPAs of retained trees, measures are recommended to minimise the potential damage to the roots and the root environment of the trees in question. The tree protection fencing is illustrated in Tree Protection Plan (Drawing Number 210512-WL-TPP-NB) (appendix 4)

8.0.2 The potential position of tree roots as indicated in the Arboricultural Impact Assessment Plan (appendix 3) and Tree Protection Plan (appendix 4) are only guidelines based on calculations shown in BS5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*'.

## 8.1 Recommended Remedial Tree Surgery Works

Remedial tree work specifications are set out in the Tree Schedule table (appendix 1) and discussed below. All works will be undertaken in accordance with BS3998:2010 Tree Work Recommendations and should be undertaken, by a suitably qualified and experienced Tree Surgery contractor.

8.1.1 It is intended to re-coppice T12 and T13 to facilitate the proposed development.

## 8.2 Tree Protection Fencing

The Tree Protection Plan (appendix 4) indicates the location of the proposed tree protection barriers where appropriate. These barriers will create a Construction Exclusions Zone (CEZ) around the retained trees

8.2.1 The Construction Exclusion Zones will be erected in accordance with the recommendations in Section 6.2 of BS5837:2012. The specifications for the barriers are presented in Figure 3 from BS5837:2012 (appendix 5).

8.2.2 It is *essential* that tree protection fencing barriers are erected before any site preparation or construction work be commenced. (Remedial tree works however, should be undertaken before such fencing is erected – See Section 8.1). Once erected the protective fencing will be retained and maintained in position for the duration of the development

8.2.3 Should any construction activity require the repositioning of the tree protection barriers, advice will be sought from Silverback Arboricultural Consultancy and approval requested from the Local Authority Tree Officer before any of the fencing is altered.

## 8.3 Damage Limitation-Special Measures

Areas are identified on the Tree Protection Plan (appendix 4) where special measures will be required to minimise the impact of the proposed site layout on the retained trees where the construction works breach the RPAs.

8.3.1 The existing stone patio will be retained throughout the proposed works to protect any underlying roots.

8.3.2 Where working are is required within the calculated Root Protection Area of T07, T20 and T23, temporary ground protection will be installed. in accordance with BS5837:2012 Section 6.2.3.3.

8.3.3 In the event of any unforeseen circumstances the project arboriculturalist will be informed immediately and will advise on suitable precautionary measures.

#### **8.4 Underground Service Installation**

Service runs in association with the proposed project have been planned outside of any Root Protection Area of retained trees. Should this change installation of drainage or services runs will be in accordance with Section 7.7 (Underground and above-ground utility apparatus) of BS5837:2012.

### **9.0 Arboricultural Method Statement**

This section sets out the basis of the methodology for all works in relation to the proposed development in proximity to trees located within the site boundary. Once the position and acceptability of the proposed extensions have been agreed with the Local Planning Authority, it is recommended that a Detailed Arboricultural Method Statement (DAMS) is compiled. It is considered that the DAMS could be conditioned in any planning consent.

9.0.1 Copies of the detailed Arboricultural Method Statement document will be available for inspection on site and will form the basis of the management of all works relating to the trees on the site for the Site Agent/Manager following commencement of the project.

#### **9.1 Programme of Works**

- Arboricultural works
- Erection of protective barriers and temporary ground protection

#### **9.2 Arboricultural Works**

The work recommendations presented in the Tree Schedule (appendix 1) and the recommendations discussed in Section 9.2.1 set out the proposed works to trees within the development site. These works will be carried out before commencement of other site operations including the erection of protective barriers.

9.2.1 It is intended to re-coppice T12 and T13 to facilitate the proposed development. The proposed tree works will be undertaken by a professional arboriculturist in accordance with the recommendations contained in BS3998:2010. Tree work-recommendations.

### 9.3 Tree Protection Fencing

BS5837: 2012 recommends the erection of protective fencing around retained trees before development commences. The position of the fencing is calculated using the tree's diameter (DBH) measured at 1.5m up the stem. The area within the fencing is called the Root Protection Area (RPA).

9.3.1 To allow access to the site and facilitate the construction it will not be possible to erect the protective fences at recommended distance contained with BS5837:2012. It is proposed to erect the protective fencing as indicated on the Tree Protection Plan (TPP) (appendix 4). This will create a Construction Exclusion Zone (CEZ)

9.3.2 The protective fencing will be constructed in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. This will consist of weld mesh panels positioned in rubber feet braced with stabilizer struts secured with ground pins, in accordance with Figure 3 of BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations' (appendix 5).

9.3.3 Once erected the protective fencing will be retained and maintained in position for the duration of the development. If it is necessary to move the protective fencing advice will be sought from Silverback Arboricultural Consultancy and approval requested from the Bristol City Council Tree Officer before any of the fencing is altered.

9.3.4 Weatherproof signage should be attached to the fencing indicating its function as illustrated (appendix 6).

9.3.5 In the CEZ (construction exclusion zone):

- There must be no alteration of ground levels, including soil stripping other than those detailed within this report

- Any installation of drainage or services will be in accordance with Section 7.7 (Underground and above-ground utility apparatus) of BS5837:2012.
- Oil, bitumen, cement or other harmful materials must not be stored, mixed or discharged within 10m of any retained trees
- Fires will not be lit beneath or within 10m upwind of tree canopies

#### **9.4 Installation of temporary ground protection.**

Prior to the commencement of any construction works on site, temporary ground protection will be installed, as indicated on the TPP (appendix 4), in accordance with BS5837:2012 Section 6.2.3.3. This will be retained and maintained in position for the duration of the development.

9.4.1 The temporary ground protection will consist of a geo textile membrane placed over the existing ground. This will be topped by 100mm woodchip overlaid with a single thickness of scaffold boards.

#### **9.5 Supervision and Monitoring**

It is recommended that the Arboricultural Consultant is employed to oversee operations relating to works close to or within RPAs and to issue a site inspection report of practical completion for the following operations:

- The erection of protective barriers and temporary ground protection in accordance with TPP (appendix 4)

9.5.1 It is recommended that a record of site visits completed by the project arboriculturalist are maintained for inspection on site and copies are forwarded to the Local Planning Authority Tree Officer.

9.5.2 This development will be overseen Silverback Arboricultural Consultancy. If there are any alterations to the proposed working methodology necessary, works will be stopped until the arboricultural consultant has been notified and agreement reached with the Local Planning Authority Tree Officer.

## 10.0 Contact Details

### 10.1 Arboricultural Consultant

Chris Wright

Silverback Arboricultural Consultancy

E-mail: [chris@silverbackarb.co.uk](mailto:chris@silverbackarb.co.uk)

### 10.2 Local Authority Tree Officer

Matthew Bennett

Arboricultural Officer

Bristol City Council

E-mail: [matthew.bennett@bristol.gov.uk](mailto:matthew.bennett@bristol.gov.uk)

## 11.0 References

Mattheck, C. and Breloer, H. (1995). The Body Language of Trees: A handbook for failure analysis. Research for Amenity Trees **4**. HMSO, London.

British Standard 5837:2012 - Trees in relation to design, demolition and construction – Recommendations. British Standards Institution, London

British Standard 3998:2010 - Tree Work Recommendations. British Standards Institution, London

## 12.0 Appendices

- Tree schedule sheets
- Tree constraints plan
- Arboricultural impact assessment (AIA)
- Tree protection plan
- BS5837:2012 Trees in relation to construction: Recommendations Protective Fencing Detail
- Protective fencing sign

**Chris Wright. MArborA, Tech Cert.Arbor.A**

Silverback Arboricultural Consultancy

14<sup>th</sup> May 2021

## Arboricultural Survey Woodlands Lodge, Stoke Bishop

Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m2
						N	E	S	W									
T01	Pedunculate Oak	<i>Quercus robur</i>	8	1	290	4	4	4	4	2	Mature	Good	Good	No significant defects visible at time of inspection Minor deadwood in canopy	No action required at the time of inspection.	40+ Years	A1,2	Radius: 3.5m. Area: 38 sq m.
T02	Bird Cherry	<i>Prunus padus</i>	5	1	160	2	2	2	2	1	Mature	Good	Good	No significant defects visible at time of inspection Minor deadwood in canopy Previously crown reduced	No action required at the time of inspection.	20-40 Years	B2	Radius: 1.9m. Area: 11 sq m.
T03	Apple	<i>Malus sp.</i>	5	1	180	1	3	2	3	1	Mature	Good	Good	No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	B2	Radius: 2.2m. Area: 15 sq m.
T04	Apple	<i>Malus sp.</i>	4	1	110	1	2	1	3	1	Mature	Good	Good	No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	B2	Radius: 1.3m. Area: 5 sq m.
T05	Plum	<i>Prunus domestica</i>	4	1	70	1	1	1	1	1	Early Mature	Good	Good	No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	C2	Radius: 0.8m. Area: 2 sq m.
T06	Apple	<i>Malus sp.</i>	5	1	310	3	1	2	3	2	Mature	Fair	Good	Twin stemmed from 1m Previously crown reduced Suppressed by neighbouring trees Asymmetric crown	No action required at the time of inspection.	20-40 Years	B2	Radius: 3.7m. Area: 43 sq m.
T07	Scots Pine	<i>Pinus sylvestris</i>	14	1	530	4	4	4	2	10	Mature	Fair	Good	Suppressed by neighbouring trees Asymmetric crown Minor deadwood in canopy	No action required at the time of inspection.	40+ Years	B2	Radius: 6.4m. Area: 129 sq m.
T08	Hazel	<i>Corylus avellana</i>	7	4	180	4	1	0	4	0	Mature	Fair	Good	Multi- stemmed from base Previously coppiced	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.1m. Area: 14 sq m.
T09	Hazel	<i>Corylus avellana</i>	7	4	180	1	1	1	3	0	Mature	Fair	Good	Multi- stemmed from base Previously partially coppiced	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.1m. Area: 14 sq m.
T10	Hazel	<i>Corylus avellana</i>	7	4	180	2	1	1	1	0	Mature	Fair	Good	Multi- stemmed from base Previously partially coppiced	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.1m. Area: 14 sq m.
T11	Hazel	<i>Corylus avellana</i>	7	3	150	0	1	1	0	0	Mature	Fair	Good	Multi- stemmed from base Previously coppiced Included bark at stem union	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.7m. Area: 9 sq m.

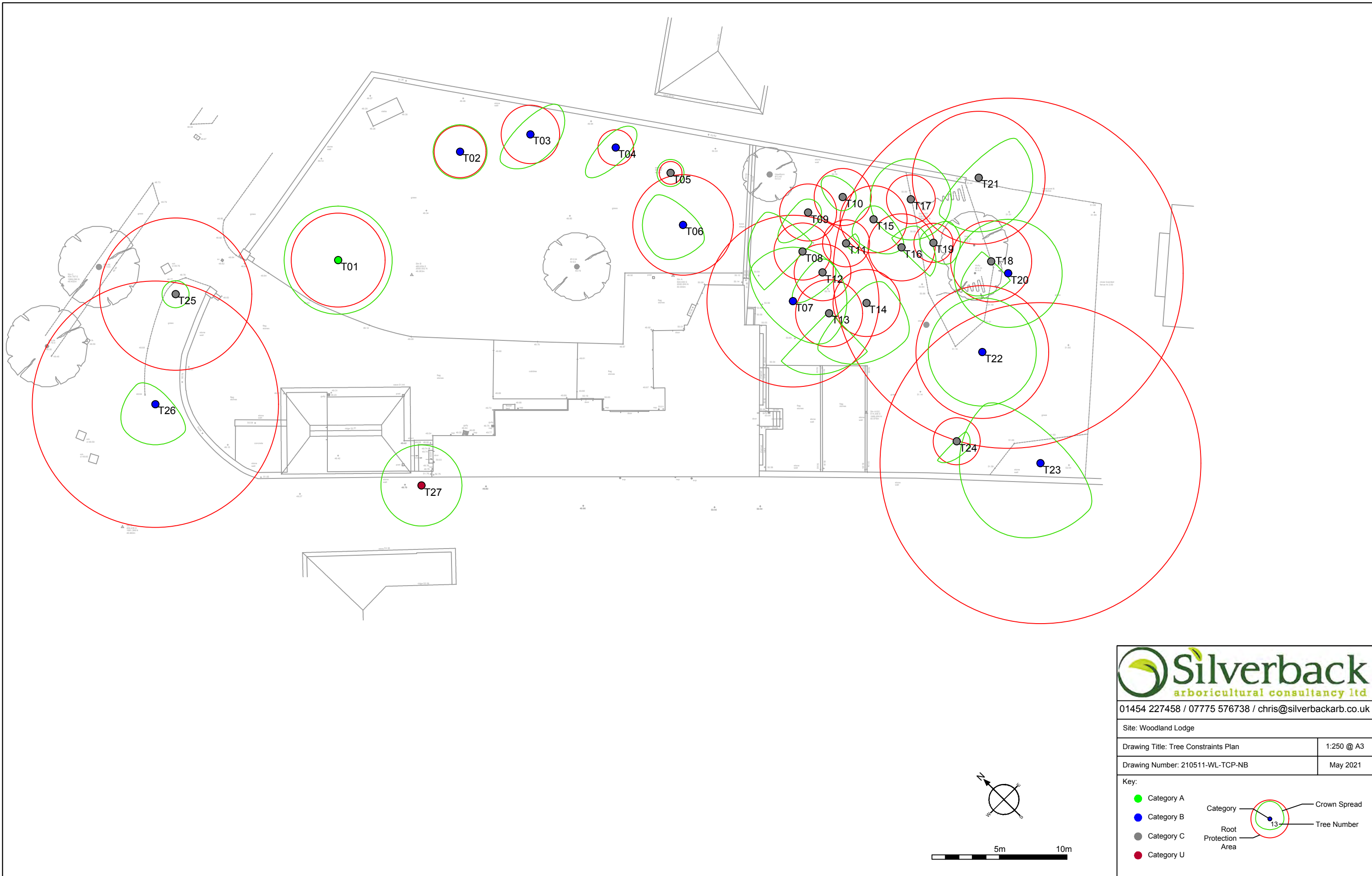


## Arboricultural Survey Woodlands Lodge, Stoke Bishop

Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m2
						N	E	S	W									
T12	Hazel	<i>Corylus avellana</i>	8	3	180	1	1	1	3	0	Mature	Fair	Good	Multi- stemmed from base Previously coppiced Included bark at stem union Major deadwood in canopy	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.1m. Area: 14 sq m.
T13	Hazel	<i>Corylus avellana</i>	8	3	200	0	0	4	5	0	Mature	Fair	Good	Multi- stemmed from base Previously coppiced Included bark at stem union Branches touching existing building	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.5m. Area: 20 sq m.
T14	Hazel	<i>Corylus avellana</i>	8	4	200	1	2	4	5	0	Mature	Fair	Good	Multi- stemmed from base Previously coppiced Included bark at stem union Major deadwood in canopy	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.5m. Area: 20 sq m.
T15	Hazel	<i>Corylus avellana</i>	8	4	200	1	1	3	2	0	Mature	Fair	Good	Multi- stemmed from base Previously coppiced Minor deadwood in canopy	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.5m. Area: 20 sq m.
T16	Hazel	<i>Corylus avellana</i>	8	4	200	1	2	3	0	0	Mature	Fair	Good	Multi- stemmed from base Previously coppiced	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.5m. Area: 20 sq m.
T17	Holly	<i>Ilex sp.</i>	7	1	150	3	3	3	3	0	Mature	Good	Good	No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.8m. Area: 10 sq m.
T18	Horse Chestnut	<i>Aesculus hippocastanum</i>	8	1	250	1	0	2	3	2	Mature	Fair	Poor	Tree appears to be in terminal decline Suppressed by neighbouring trees Asymmetric crown Major deadwood in canopy	No action required at the time of inspection.	10+ Years	C2	Radius: 3.0m. Area: 28 sq m.
T19	Holly	<i>Ilex sp.</i>	6	1	120	1	2	2	1	0	Mature	Fair	Good	Suppressed by neighbouring trees Asymmetric crown	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.4m. Area: 6 sq m.

## Arboricultural Survey Woodlands Lodge, Stoke Bishop

Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m2
						N	E	S	W									
T20	Californian Redwood	<i>Sequoia sempervirens</i>	15	1	1080	4	4	4	4	10	Mature	Fair	Good	Ivy growing up main stem Previously twin stemmed from base, one limbed has been removed	No action required at the time of inspection.	20-40 Years	B2	Radius: 13.0m. Area: 531 sq m.
T21	Field Maple	<i>Acer campestre</i>	7	1	410	1	4	4	4	3	Mature	Fair	Fair	Previously crown reduced Heavy lean to south Major deadwood in canopy Growing in neighbouring property	No action required at the time of inspection.	20+ Years	C2	Radius: 4.9m. Area: 75 sq m.
T22	English Yew	<i>Taxus baccata</i>	7	1	410	4	4	4	4	1	Mature	Good	Good	No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	B2	Radius: 4.9m. Area: 75 sq m.
T23	European Lime	<i>Tilia x europaea</i>	14	1	990	6	2	5	6	2	Mature	Fair	Good	Previously pollarded at 8m Part of an old lime avenue Growing on edge of boundary wall Ivy growing up main stem	No action required at the time of inspection.	20-40 Years	B2	Radius: 11.9m. Area: 445 sq m.
T24	Hazel	<i>Corylus avellana</i>	6	3	145	0	1	1	2	0	Mature	Fair	Good	Multi- stemmed from base Previously coppiced Included bark at stem union	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.7m. Area: 9 sq m.
T25	European Lime	<i>Tilia x europaea</i>	7	1	470	1	1	1	1	5	Mature	Fair	Good	Previously pollarded at 6m	No action required at the time of inspection.	20-40 Years	C2	Radius: 5.6m. Area: 99 sq m.
T26	European Lime	<i>Tilia x europaea</i>	8	1	760	2	1	3	3	4	Mature	Good	Good	Previously pollarded at 6m	No action required at the time of inspection.	20-40 Years	B2	Radius: 9.1m. Area: 260 sq m.
T27	Common Ash	<i>Fraxinus excelsior</i>	8	1	570	3	3	3	3	3	Mature	Fair	Poor Diseased	Major deadwood in canopy Evidence of Ash Dieback Disease in canopy Previously pollarded at 7m	No action required at the time of inspection.	<10 years	U	None - due to Retention Category of U.



Key:

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

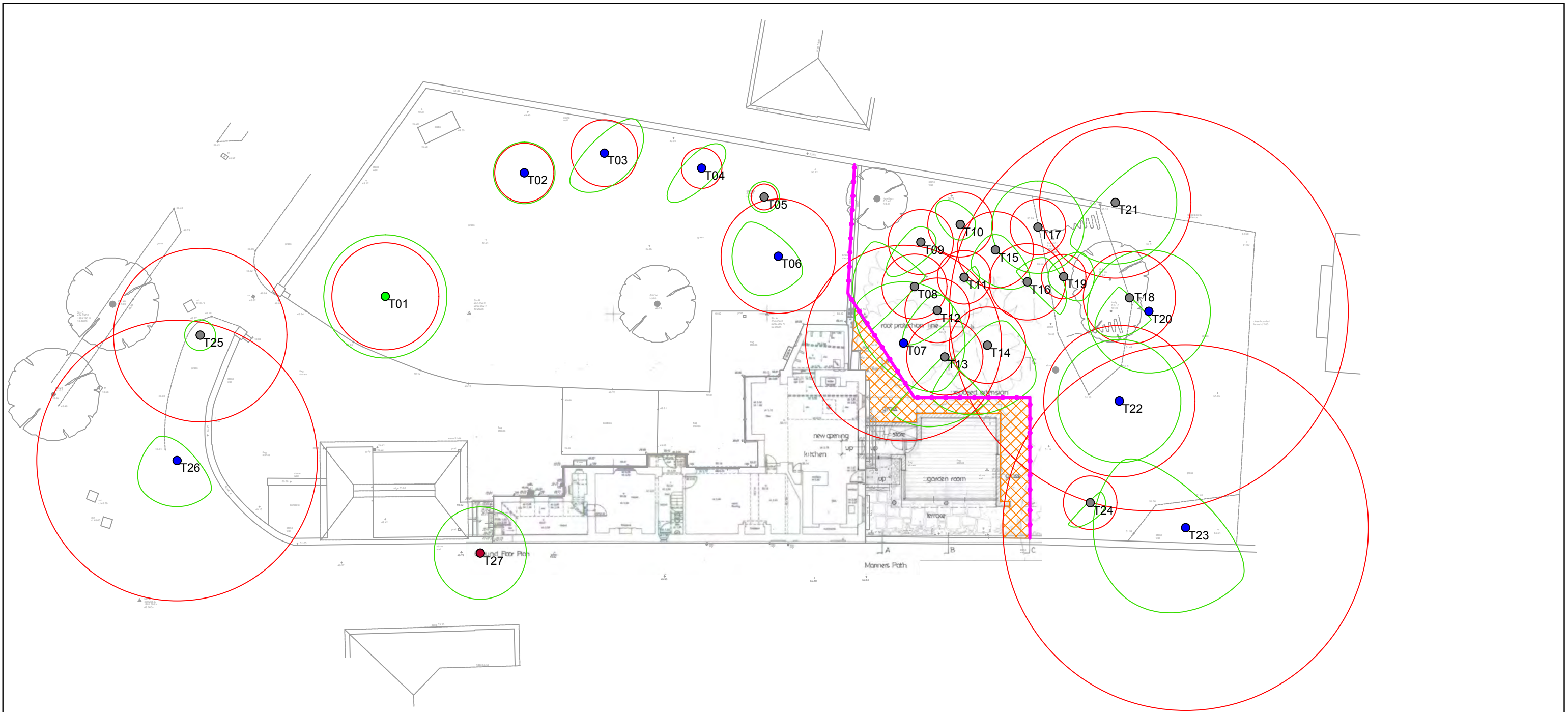
- Category
- Root Protection Area
- Crown Spread
- Tree Number



Key:

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

Category ○ Crown Spread  
 Root Protection Area ○ Tree Number

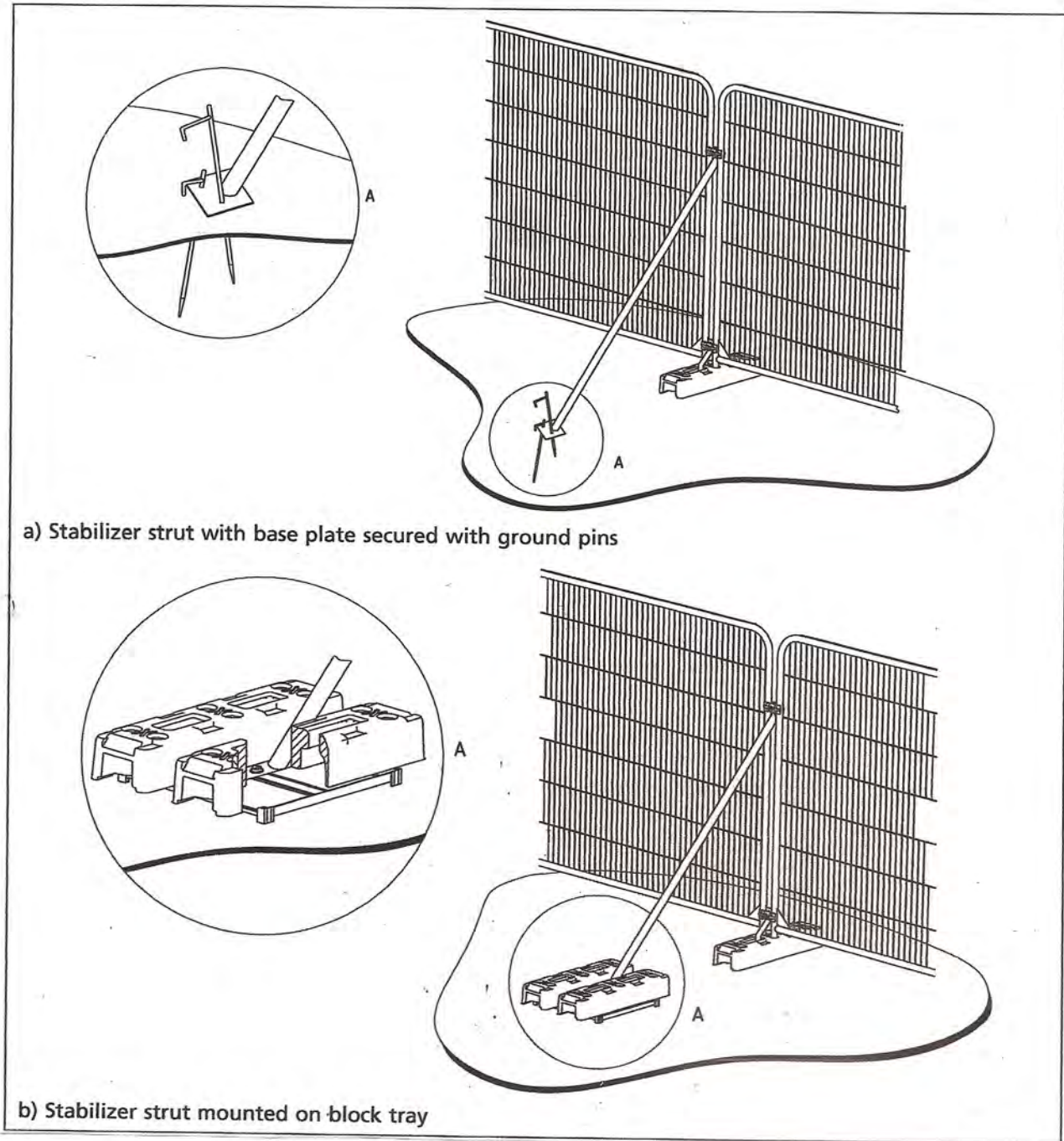


Key:

<span style="color: green;">●</span> Category A	Category		Crown Spread
<span style="color: blue;">●</span> Category B			Tree Number
<span style="color: grey;">●</span> Category C			
<span style="color: red;">●</span> Category U			
			Tree Protection Fencing
			Temporary Ground Protection

**BS 5837:2012 – TREES IN RELATION TO DESIGN, DEMOLITION AND  
CONSTRUCTION – RECOMMENDATIONS**

**EXAMPLES OF ABOVE-GROUND STABILIZING SYSTEMS**



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



**PROTECTIVE FENCING. THIS  
FENCING MUST BE  
MAINTAINED IN ACCORDANCE  
WITH THE APPROVED PLANS  
AND DRAWINGS FOR THIS  
DEVELOPMENT.**



**TREE PROTECTION AREA  
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)  
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY  
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A  
TREE PRESERVATION ORDER.  
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY  
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE  
WITH THE WRITTEN PERMISSION OF THE LOCAL  
PLANNING AUTHORITY**