

320170439P

Arboricultural Constraints Appraisal

in Relation to Proposed Development at



**Sagar Wood, Birdy Brow, Chaigley,
Lancashire, BB7 3LR**

Prepared by:

Bowland 
Tree Consultancy Ltd

May 2017

ARBORICULTURAL CONSTRAINTS APPRAISAL SAGAR WOOD, CHAIGLEY

CONTENTS

1. TREE SURVEY SCHEDULE & BS5837:2012 – TABLE 1
2. TEMPORARY PROTECTIVE FENCING SPECIFICATION
3. TREE CONSTRAINTS PLAN

Contact Details

Bowland Tree Consultancy Ltd
First Floor
11 Cannon Street
Preston
Lancashire
PR1 3NR

T: 01772 437150
E: info@bowlandtreeconsultancy.co.uk

**ARBORICULTURAL CONSTRAINTS APPRAISAL
SAGAR WOOD, CHAIGLEY**

Control sheet

Project No.: BTC1277

Site: Sagar Wood, Birdy Brow, Chaigley, Lancashire, BB7 3LR

Agent for Client: Sunderland Peacock & Associates Ltd

Council: Ribble Valley Borough Council

Survey Date: 4 May 2017

Surveyed by: Richard Dunn HND

Prepared by: Richard Dunn HND

Checked by: Phill Harris MSc BSc(Hons) HND CEnv MArborA MICFor

Date of Issue: 5 May 2017

Version No: 1

TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL

Site: Sagar Wood, Birdy Brow, Chaigley, Lancashire, BB7 3LR

Agent for Client: Sunderland Peacock and Associates Ltd.

Surveyor: Richard Dunn HND

Survey Date: 4 May 2017

Job Ref: BTC1269

Page: 1 of 3

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
T1	Common Oak	18	630	N 5 E 4.5 S 4 W 5	5 5.5	M	M	- Situated at top of steep embankment adjacent to stream. - Moderate incidence of deadwood present in crown.		40+	B1	180	7.56
T2	Common Oak	17.5	600	N 3 E 5.5 S 6.5 W 1	6-S 7	M	G	- Situated at top of steep embankment adjacent to stream. - Moderate incidence of deadwood in crown. - Stem leaning heavily west at 8m. - Dense covering of ivy on stem, spreading into crown.		40+	B1	163	7.2
T3	Bird Cherry	14	240	N 3 E 3 S 3 W 1	4 3	SM	G	- Situated on stream embankment. - Moderate covering of ivy on main stem, spreading into crown.		20+	B1	26	2.88
T4	Sycamore	17	650	N 5 E 4 S 4 W 5	7 6	PM	D	- Tree is dead. - Stem bifurcates at 0.5m. - Dense ivy up stem and into crown to height of approximately 14m.	Remove.	<10	U	191	7.8
T5	Common Oak	22	790	N 7 E 6.5 S 5 W 7	5 6	M	G	Multiple partially occluded pruning wounds on main stem.		40+	B1	282	9.48
T6	Weymouth Pine	19	280	N 3 E 1.5 S 2 W 3	3 2	SM	G	Crown slightly biased south-east.		20+	B1	35	3.36
T7	Common Alder	21	370	N 4.5 E 4 S 4.5 W 3	3.5-SW 3	M	G	- Pruning stub on north of main stem at a height of 4m, approximately 50mm in diameter. - Light ivy growth on main stem spreading into crown.		20+	B1	62	4.44

Headings and Abbreviations.

No. Allocated sequential reference number - Tree (T), Group (G), Woodland (W) or Hedge (H) reference number - refer to plan and to numbered tags where applicable

Species: Common name

Height: In metres, to nearest half metre - where possible approximately 80% are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree

Stem Diam.: Stem diameter in millimetres, to nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed

Branch Spread: Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown

Branch & Canopy Clearances: Extending height above ground level, in metres, of first significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point - to inform on crown to height ratio, potential for shading, etc.

Life Stage: Estimated age class. Y = young, SM = semi-mature, M = mature, PM = post-mature

PC: Physiological Condition - a measure of the tree's overall vitality, i.e. D = Dead, MD = Moribund, P = Poor, M = Moderately, G = Good

General Observations and Comments: Comments relating to the tree's overall condition and any other pertinent factors including structural defects, current and potential direct structural damage, physiological decline, poor form, etc.

Management Recommendations: Either Prunectomy or In Consideration of the Proposed - in the case of Arboricultural Constraints Surveys the recommended management works only take existing site and tree circumstances and conditions into account and not proposed developments. Arboricultural Impact Assessment and Method Statement related

ERC: Surveyor's take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate

Cat. Grade: Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1

RPA m²: Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order to avoid root damage

RPA Radius (m): Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection

(Estimated Dimensions): Where trees are located off-alleys, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a '*' symbol

TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL

Site: Sagar Wood, Birdy Brow, Chaigley, Lancashire, BB7 3LR

Agent for Client: Sunderland Peacock and Associates Ltd.

Surveyor: Richard Dunn HND

Survey Date: 4 May 2017

Job Ref: BTC1269

Page: 2 of 3

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearance	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA Area (m²)	RPA Radius (m)
T8	Dawn Redwood	12.5	300	N 3.5 E 3 S 2.5 W 1.5	2-E 3	SM	G	■ Crown moderately biased south west. ■ Partially occluded wound, approximately 30mm by 100mm at a height of 1.5m on north of main stem.		20+	B1	41	3.6
T9	Norway Spruce	17	560	N 3.5 E 5 S 5 W 2	7 4	M	M	■ Topped at a height of 17m. ■ Sparse crown showing reduction in vitality. ■ Crown biased moderately west. ■ Situated within a dense mixture of shrubs, including Rhododendron, Laurel and Box.		10+	C2	142	6.72
T10	Norway Spruce	17	1x720 1x520 (ts)	N 5 E 4 S 4 W 5	5 1	M	G	■ Bifurcates at 0.5m. ■ Topped at a height of 17m. ■ Situated within a dense mixture of shrubs, including Rhododendron, Laurel and Box.		10+	C2	357	10.66
T11	Holly	7	220	N 1.5 E 2 S 2.5 W 2.5	4 3	M	G	■ Moderately biased crown and moderate stem lean north-west. ■ Multiple partially occluded pruning wounds on main stem.		20+	B1	22	2.64
T12	Copper Beech	18	660	N 5 E 7 S 6.5 W 5.5	3.5-N 2.5	M	G	■ Situated in lawn. ■ Multiple occluded pruning wounds on main stem.		40+	A1	197	7.92
T13	Lawson Cypress	16	610	N 2 E 2 S 2 W 2	0.5 0.1	M	G	■ Bifurcates at 2m.		20+	B1	168	7.32
T14	Cockspur Thorn	7	440	N 3 E 3.5 S 3 W 3	2 1.5	M	G	■ Slight lean to west.		20+	B1	88	5.28
T15	Weeping Beech	9	440	N 7 E 4.5 S 6.5 W 5	3 2	M	G	■ No significant defects.		20+	A1	88	5.28

TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL

Site: Sagar Wood, Birdy Brow, Chaigley, Lancashire, BB7 3LR

Agent for Client: Sunderland Peacock and Associates Ltd.

Surveyor: Richard Dunn ^{HND}

Survey Date: 4 May 2017

Job Ref: BTC1269

Page: 3 of 3

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearance	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA Radius (m ²)	RPA Radius (m)
T16	Whitebeam	5	230	N 2 E 2 S 2 W 2	1.5 1	M	G	Slight lean west.		20+	B1	24	2.76
T17	Persian ironwood	4.5	230	N 3 E 3 S 4 W 4	1.5-N 1	M	G	- Multiple partially occluded pruning stubs throughout crown. - Situated within a dense mixture of shrubs, including Rhododendron, Laurel, Azalea, and Ornamental Cypress.		20+	B1	24	2.76
T18	Smooth Japanese Maple	4.5	170	N 2.5 E 2.5 S 2.5 W 2.5	1.5-S 1.5	M	G	- Part occluded pruning wound at height of 0.5m on north of main stem, approximately 100mm by 50mm. - Branches in contact with garage roof.		20+	B1	13	2.04
G1	3no. Lawson Cypress	≤ 17	≤ 510	N ≤ 3 E ≤ 2 S ≤ 2.5 W ≤ 3	2-W ≥ 0.5	M	G	- Tightly spaced group within a dense mixture of shrubs, including Mahonia, Laurel, Bamboo and Rhododendron. - One is multi-stemmed. - Two previously topped at a height of approximately 17m.		10+	C2	≤ 118	≤ 6.12

DISCLAIMER

Site Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques. The disclosure of hidden crown and stem defects, in particular where they may be above a reachable height or where trees are ivy clad or in areas of ground vegetation, cannot therefore be expected. All obvious defects, however, are reported. Detailed tree safety appraisals are only carried out under specific written instructions. Comments upon evident tree safety relate to the condition of said tree at the time of the survey only.

Unless otherwise stated all trees should be re-inspected annually in order to appraise their on-going mechanical integrity and physiological condition. It should, however, be recognised that tree condition is subject to change, for example due to the effects of disease, decay, high winds, development works, etc. Changes in land use or site conditions (e.g. development that increases access frequency) and the occurrence of severe weather incidents are also significant considerations with regards tree structural integrity and trees should therefore be re-assessed in the context of such changes and/or incidents and inspected at intervals relative to identified and varying site conditions and associated risks.

Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters of trees located on such land are estimated. Any subsequent comments and judgments made in respect of such trees are based on these restrictions and are our preliminary opinion only. Recommendations for works to neighbouring third-party trees are only made where a potentially unacceptable risk to persons and/or property has been identified during our survey. Where significant structural defects of third-party trees are identified and associated management works are considered essential to negate any risk of harm and/or damage then we will first attempt to inform the site occupier of the issues and, if not possible, then inform the relevant Council. Where a more detailed assessment is considered necessary then appropriate recommendations are set out in the Tree Survey Schedule.

Where tree stem locations are not included on the plan(s) provided then they are plotted at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these respects are detailed in the report.

The tree survey and any report information provided is intended as a guide to identify key tree related constraints to site development only. As such, the potential influence of trees upon existing or proposed buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The tree survey information in its current form should not therefore be considered sufficient to determine appropriate foundation depths for new buildings. Accordingly, an updated survey, with reference to the current NHBC Standards Chapter 4.2 - Building Near Trees, must therefore be prepared for the specific purpose of informing suitable foundation depths subsequent to planning approval being granted. The advice of a structural engineer must also be sought with regard to appropriate foundation depths for new buildings.

Copyright & Non-Disclosure Notice: The content and layout of this report are subject to copyright owned by Bowland Tree Consultancy Ltd, save to the extent that copyright has been legally assigned to us by another party or is used by Bowland Tree Consultancy Ltd under license. This report may not be copied or used without our prior written agreement for any purpose other than those indicated.

Third Parties: Any disclosure of this document to a third party is subject to this disclaimer. The report was prepared by Bowland Tree Consultancy Ltd at the instruction of and for use by our client, as named. This report does not in any way constitute advice to any third party who is able to access it by any means. Bowland Tree Consultancy Ltd excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage arising from reliance on the contents of this report.

BS5837:2012 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 unsuitable 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 <i>Note: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see BS5837:2012 paragraph 4.5.7.</i>			Red
	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)	Green
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution. A minimum of 20 years is suggested.	Trees that might be included in the high category, but are downgraded because of impaired condition. Examples include the presence of remediable defects including unsympathetic past management and minor storm damage	Trees present in numbers, usually as groups or woodlands, so they form distinct landscape features which attract a higher collective rating than they might as individuals. But which are not, individually, essential components of formal or semi-formal arboricultural features. For example, trees of moderate quality within an avenue that includes better, A category specimens. Or trees which are internal to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	Blue
Category C Those trees of low quality and value: currently in adequate condition to remain until new planting could be established - a minimum of 10 years is suggested - or young trees with a stem diameter below 150 mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits	Grey
	Note – Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation			

- TEMPORARY PROTECTIVE FENCING SPECIFICATION -

Construction Exclusion Zones (CEZs), enclosed by Temporary Protective Fencing, as detailed below and to be agreed with the Local Planning Authority (LPA), shall:

1. Be constructed as specified in the 'Temporary Protective Fencing Construction' section below and detailed in BS5837:2012 Figure 2, or as per the details in Figure 3(a) or 3(b) (overleaf), as agreed with the LPA;
2. be retained in place throughout the development process;
3. be sited in the area(s) defined by the Root Protection Areas on the associated Tree Plan;
4. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
5. preclude any delivery of site accommodation and/or materials and/or plant machinery;
6. preclude all construction related activity, with the sole exception of specified arboricultural works and any other works to be carried out under supervision that have been agreed by all parties; and
7. preclude the storage of all development related materials and substances including fuels, oils, additives, cement and/or any other deleterious substance.

Any incursion into CEZs must be by prior arrangement, following consultation with the LPA.

Default Temporary Protective Fencing Construction (see Figure 2, overleaf)

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall butt together and be securely fixed to a scaffold framework, as per 3 to 5 below.
3. The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights, as per 4 to 5 below.
4. The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with 3 no. clamps to each joint.
5. The diagonal scaffold pole struts be clamped to the top rail of the scaffold framework at a 45° angle and extend back into the CEZ and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1, below) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist shall inspect the Temporary Protective Fencing.

Figure 1: CEZ Warning Sign

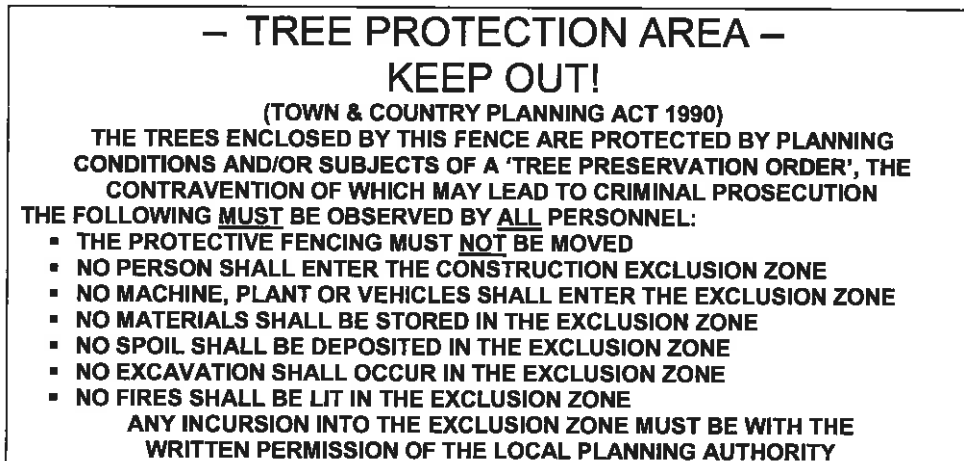


Figure 2: BS5837:2012 Default specification for protective barrier

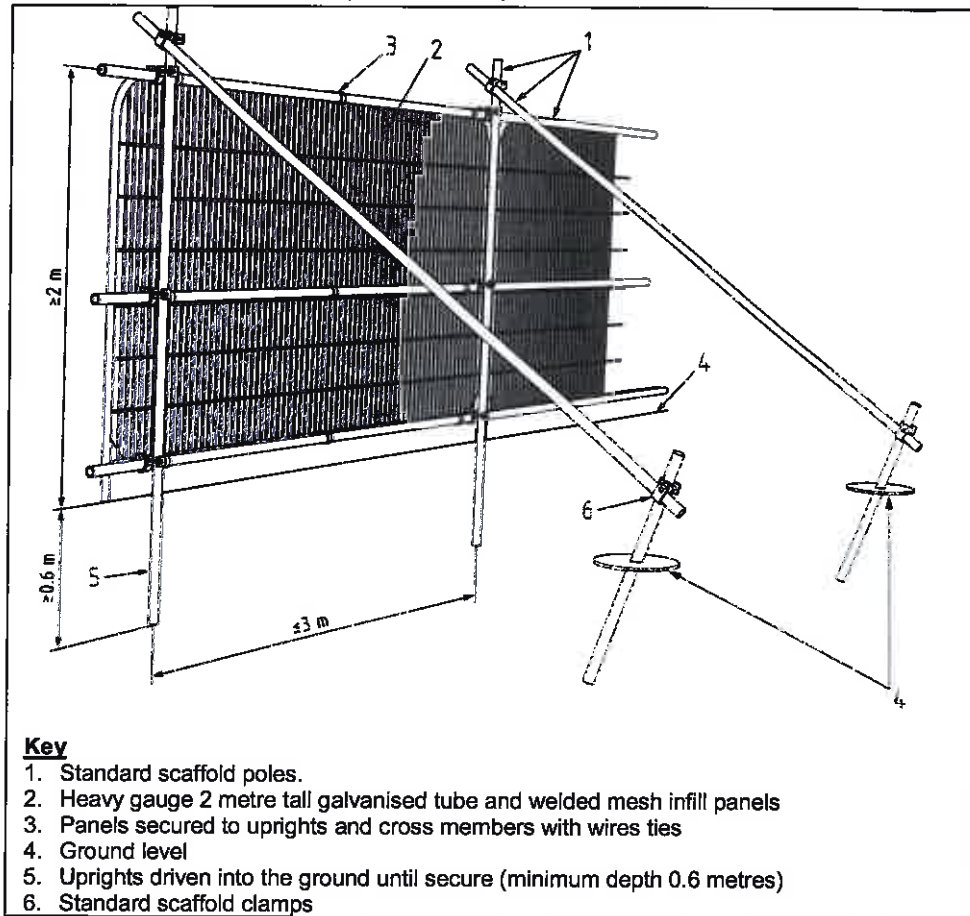
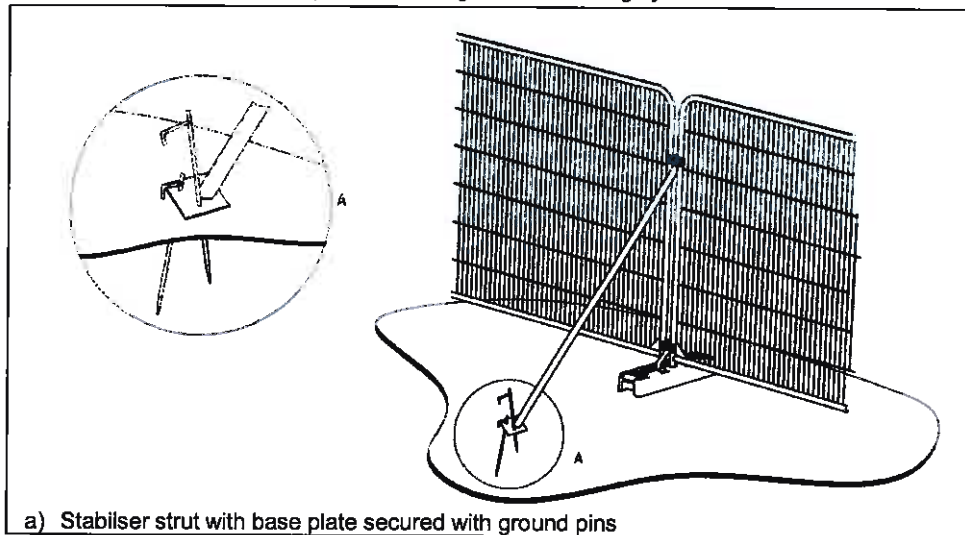
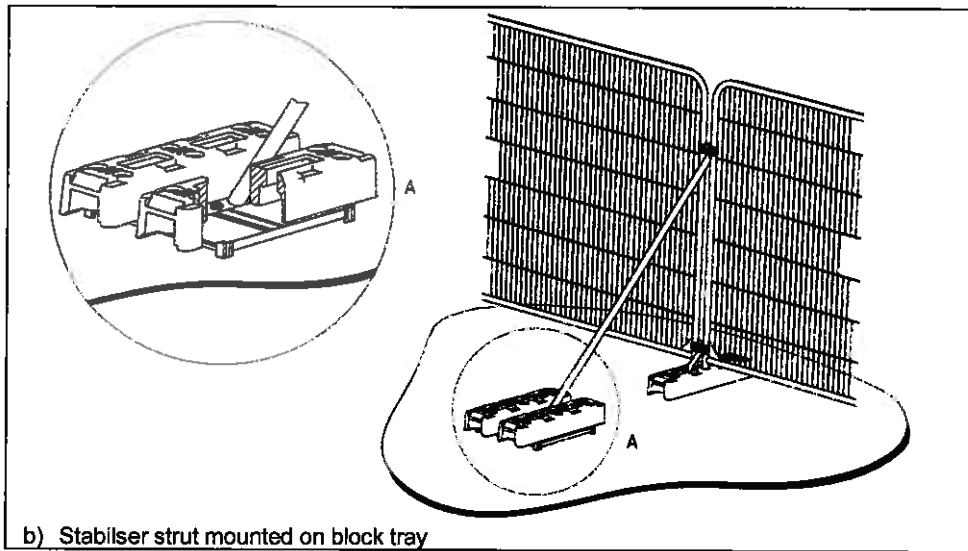


Figure 3: BS5837:2012 Examples of above-ground stabilising systems







T = Individual Trees
G = Group of Trees

Please refer to associated Time Survey Schedule for specifics

True Categoricals:

Those to be Considered for Retention.

Category 'A' Travel/Group
needs to inform City that an employee is
receiving a travel award, effective 10/1/04
M, 207

Category 'B' Tree/Group
 $2^{2n} - 2^n + 1$ (e.g., $2^{2 \cdot 2} - 2^2 + 1 = 15$)
 (e.g., $2^{2 \cdot 3} - 2^3 + 1 = 47$)
 (e.g., $2^{2 \cdot 4} - 2^4 + 1 = 127$)

Category 'C' Troop Group

Those Considered Unavailable for Retention:

Category "U" Tree/Group
*Exists in Such a Condition that They Cannot
 Readily be Put to as Living Trees in
 New Context of our Current Land Use for
 Longer Than 10 Years*

Root Protection Areas (RPAs):

RPA®
Assist(s) of Ground Around Trees that
Should be Protected Throughout
Development Works with Protective Fencing
to form a Construction Zone. Each tree is marked with a

Project: SAGAR WOOD
BIRDY BROW
CHAIGLEY
LANCASHIRE
BB7 3LR

Clients:
MR AND MRS KELLY

Title: **FREE CONSTRAINTS PLAN**

Relation to Proposed Development

4. *revised*

1:25000A2
Now 7017

drawn by:
RD
May 2017

checked by.

100

Dr. J. J. ...

Didi

Life Consultancy

2014年12月

THE

101. BIC 209-10P

important: The original version of this plan was produced in colour, which is essential to the plan's interpretation and usability. As such, a monochrome copy should not be relied upon