

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT AND PROTECTION APPRAISAL		Surveyor: Phill Harris – Chartered Arboriculturist	Page: 1 of 3
Site: The Bowling Green, Brockhall Village, Old Langho, Lancashire		Survey Date: 11 March 2013	
Client: Oakworth Homes Ltd		Job Reference: BTC454	

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T1	Holly	10.5	280	N 3.5 E 2.5 S 3 W 2.5	N/A 2	EM	M	- Located outside site boundaries and therefore under third party ownership. - Growing below crown of T2. - Slightly sparse foliage cover and slightly small leaves in upper crown.	Ensure protection of Root Protection Area (RPA) throughout development.	10+	C1	35	3.36
T2	Ash	18	570	N 5 E 7 S 9 W 6.5	4.5-S 2.5	EM	G	- Located outside site boundaries and therefore under third party ownership. - Moderate amount of dead wood to approximately 20mm diameter. - Adventitious shoot growth to topside of several branches. - Several occluded pruning wounds to stem and branches.	Ensure protection of RPA throughout development.	40+	B1/2	147	6.84
T3	Purple Plum	9	400	N 4 E 3.5 S 4 W 4.5	1.7 1	PM	G	- Stem divides into multiple primary branches at a height of approximately 1.5m with several included bark unions. - Growing partially below crown of T2.	- Remove in order to construct development as proposed. - Grind out stump to approximately 0.4m below ground level.	10+	C1/2	72	4.8
T4	Purple Plum	9	460	N 4 E 7 S 2.5 W 5	1.5 0	PM	G	Stem divides into multiple primary branches at a height of approximately 1.5m with several included bark unions.	- Remove in order to construct development as proposed. - Grub out stump.	10+	C1/2	96	5.52
T5	Purple Plum	8.5	410	N 2 E 4 S 5.5 W 4.5	1-N 1	PM	M	- Stem divides into multiple primary branches at a height of approximately 1.5m with several included bark unions. - Several areas of decay at this point, evidently resultant of previous branch failures. - Short projected remaining safe life expectancy.	- Remove due to poor structural condition. - Grub out stump.	<10	U	76	4.92
T6	Wild Cherry	12	550	N 6.5 E 6.5 S 6.5 W 6.5	1.6 1	PM	G	- Stem bifurcates into primary branches at a height of approximately 1.6m. - Moderate to severe curvature of several primary branches.	- Remove in order to construct development as proposed. - Grub out stump.	10+	C1/2	137	6.6

320130323P

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

Common name

Height: In metres, to half nearest 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 used 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: Existing 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 = Moderate, 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 Preliminary or in Consideration of the Proposal - In the case of Arboricultural Consultations 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: Surveys into 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-site, 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 'Y' symbol

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T7	Purple Plum	7.5	6x180 (ms)	N 4 E 4 S 3 W 3	1.2 0.5	PM	M/P	- Stem divides into multiple primary branches at a height of approximately 1.2m. - One of these primary branches has died back and is covered in fungal fruiting bodies. - Short projected remaining safe life expectancy. - Stems divide into multiple primary branches at a height of approximately 2.0m, at point where evidently tree was evidently originally bottle grafted. - Several bacterial cankers to secondary branches. - Slightly biased crown to north-east due to partial suppression by neighbouring tree T9.		- Remove due to short projected remaining safe life expectancy. - Grub out stump.	<10	U	88	5.29
T8	Sargent Cherry	9.5	530	N 6 E 6 S 5 W 3	2-E 1.5	PM	G			- Remove in order to construct development as proposed. - Grub out stump.	10+	C1/2	127	6.36
T9	Common Alder	13	610	N 7 E 5 S 6 W 5.5	2.5-N 1.5	M	P	- Number of well established adventitious shoots to base. - Crown showing signs of a substantial reduction in vitality.		- Retain in context of proposed development. - Ensure protection of RPA throughout works. - Carry out ground improvement works within RPA on completion of development using Airspade.	10+	C1	168	7.32
T10	Purple Plum	8	430	N 3.5 E 6.5 S 4 W 4.5	0.5	PM	M	Stem divides into multiple primary branches at a height of approximately 1.5m with several included bark unions.		- Retain in context of proposed development. - Ensure protection of RPA throughout works.	10+	C1/2	84	5.16
G1	2no. Leyland Cypress	≤ 5.5	≤ 3x140 (ms)	N ≤ 1 E ≤ 1.5 S ≤ 1.5 W ≤ 1.5	N/A ≥ 0	Y	G	- Loose group. - One tree has two stems, whilst the second is multi-stemmed. - Very low landscape value.		- Remove in order to construct development as proposed. - Grub out stumps.	10+	C1/2	≤ 27	≤ 2.91
G2	approx. 7no. Horse Chestnut, 6no. Sycamore, 8no. Lime, 2no. Ash, 2no. Common Alder, 1no. Sycamore	≤ 22	≤ 720 (ms)	N ≤ 8 E ≤ 9 S ≤ 8.5 W ≤ 7	N/A ≥ 0.5	SM-M	M/P- G	- Moderately closely spaced group close to road frontage forming part of wider group which traverses property boundary, extending to neighbouring nursery land. - Group confers a high landscape value. - Several Horse Chestnuts have signs of infection by bark killing disease and one has extensive bark loss. - Of a relatively uniform age group and new planting therefore necessary in order to ensure long-term continuity.		- Retain in context of proposed development. - Ensure protection of RPA throughout works. - Monitor vitality of Horse Chestnuts. - Infill plant new Lime trees within available spaces throughout group. - Prune to lift crowns to obtain a ground clearance of approximately 3m to southern/eastern edge of group where necessary. - Carry out risk assessment appraisal.	40+	A2	≤ 235	≤ 8.64
G3	approx. 4no. Portugal Laurel	≤ 6.5	≤ 9x60 (ms)	N ≤ 4 E ≤ 4 S ≤ 4 W ≤ 4	N/A ≥ 0	M	G	- Group made up of two sections. - All multi-stemmed from ground level, low landscape value.		- Remove in order to construct development as proposed. - Grub out stumps.	10+	C1/2	≤ 15	≤ 2.16

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H1	Privet	≤ 2.5	≤ 9x30 (ms)	≤ 1.5 wide	N/A N/A	SM	G	■ Maintained hedge around bowling green.	■ Remove section to northwest in order to construct Plot One, as proposed. ■ Grub out stumps. ■ Retain remainder.	40+	C1/2	N/A	≤ 1.08

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 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 <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
Trees to be considered for retention		
	1 2 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
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 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 with no material conservation or other cultural value
	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	Blue
		Grey

DISCLAIMER

Survey Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques, in sufficient detail to gather data for and inform the design of the current project only. 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 or, if applicable, where permissible works are required to implement a proposed development. 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 potential influence of trees upon buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The advice of a structural engineer must be sought with regard to appropriate foundation depths for new buildings, with reference to NHBC Standards Chapter 4.2 (NHBC, 2008).

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- 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 retained in place throughout the development process, as specified in the 'Temporary Protective Fencing Construction' section below and detailed in BS5837:2012 Figure 2 (overleaf);
2. be sited in the area defined on the Tree Protection Plan (TPP);
3. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
4. preclude any delivery of site accommodation and/or materials and/or plant machinery;
5. 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
6. 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.

Temporary Protective Fencing Construction

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

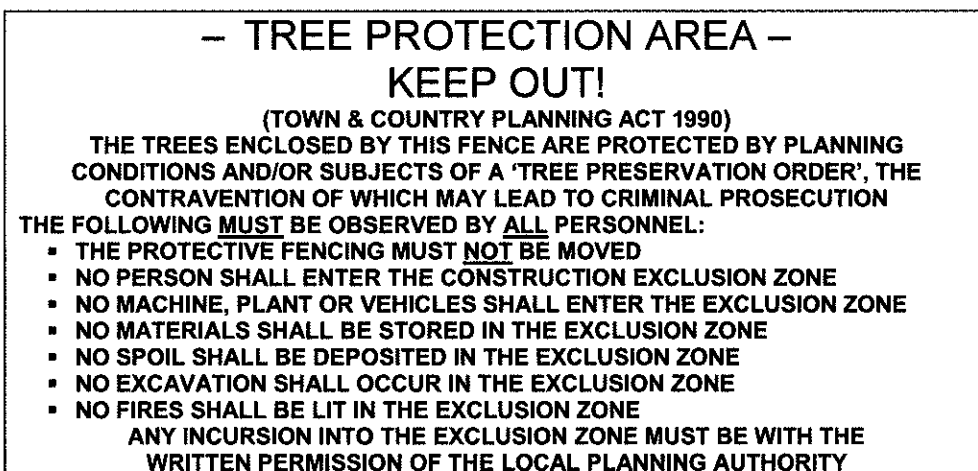


Figure 2: BS5837:2012 Default specification for protective barrier

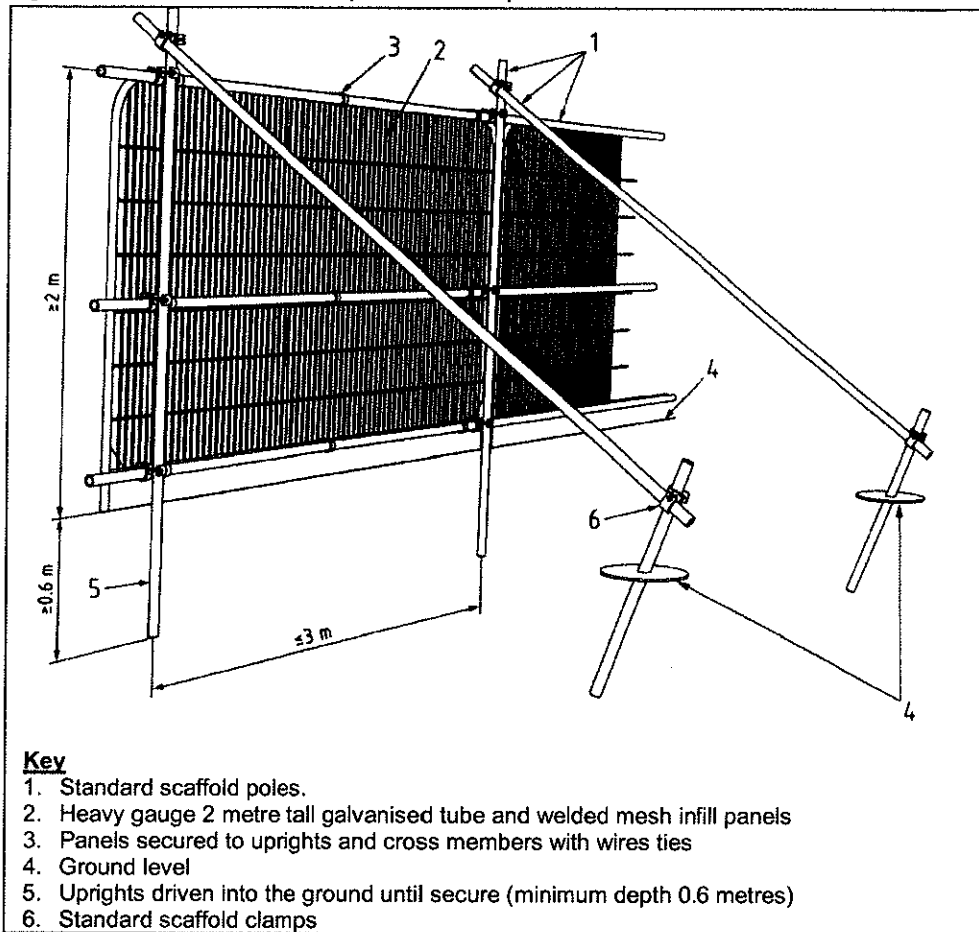
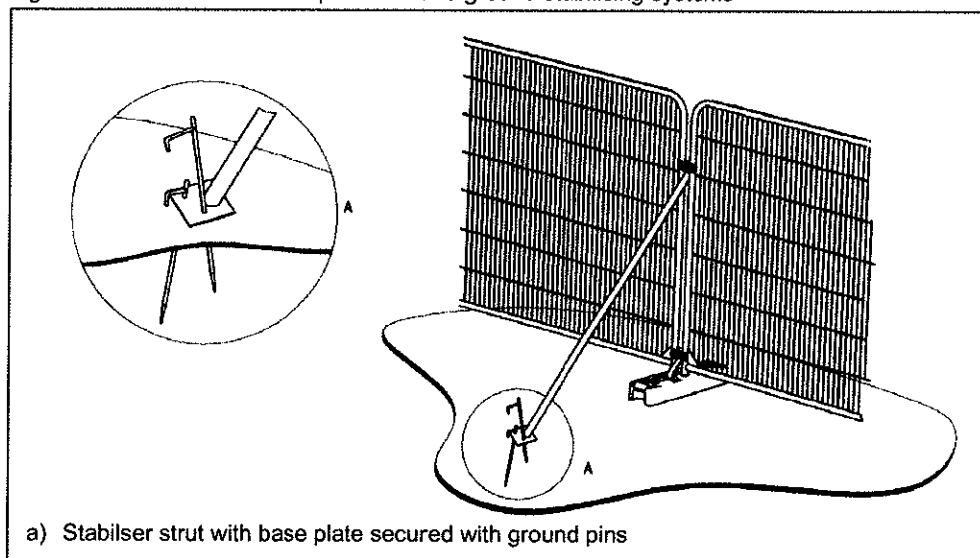
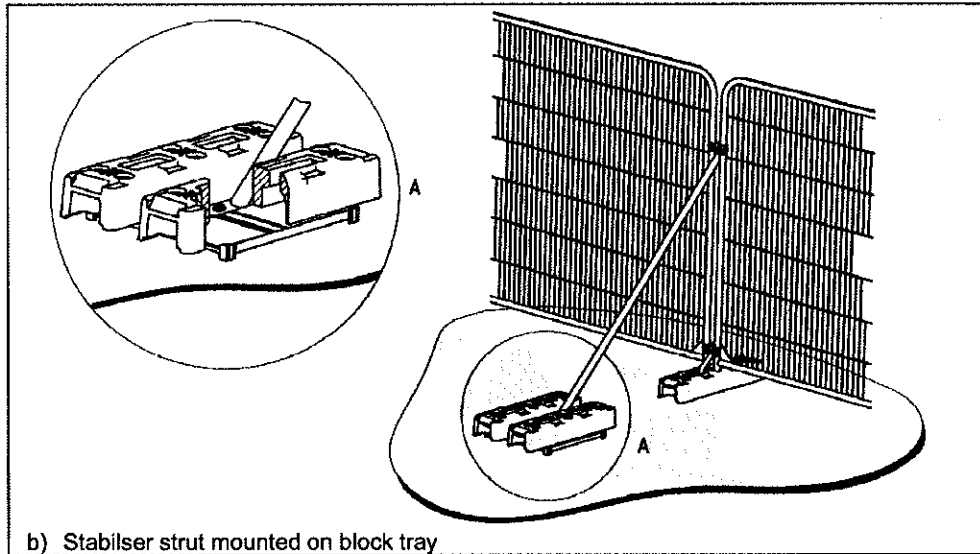


Figure 3: BS5837:2012 Examples of above-ground stabilising systems





b) Stabiliser strut mounted on block tray

KEY

T = Surveyed Individual Tree

G = Surveyed Group of Trees

H = Surveyed Hedge

Please refer to associated Tree Survey Schedule for specific details in respect of items further.

Tree Categorisation:

Trees to be Considered for Retention:

Category 'A' Tree/Group/Hedge

Those of a high quality with an estimated remaining life expectancy of at least 40 years

Category 'B' Tree/Group/Hedge

Those of a moderate quality with an estimated remaining life expectancy of at least 20 years

Category 'C' Tree/Group/Hedge

Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees

These Unsuitable for Retention:

Category 'U' Tree/Group/Hedge

Those of poor quality with an estimated remaining life expectancy of less than 10 years, or those in the context of the current land use for longer than 10 years

Notes: Trees with metrics marked with asterisks (*) are not fully measured and should be treated as indicative only.

Root Protection Areas (RPAs):

RPAs

The RPA is the area around a tree trunk within which the tree should be protected from damage to its roots. It is defined by the tree's canopy spread and its root system. It is the responsibility of the developer to ensure that the RPA is protected throughout the construction process.

Tree Planting:

Appropriate Location: Considered suitable for new planting with trees of appropriate species to the approved local planning authority. The proposed planting should be in accordance with the relevant planning conditions and any other relevant legislation.

Project:

THE BOWLING GREEN

BROCKHALL VILLAGE

OLD LANGHO

LANCASHIRE

Client:

OAKWORTH HOMES LTD

Title:

TREE IMPACT PLAN

In Relation to Proposed to Construct 2nd Detached Residential Properties

Scale:

1:2000/0A2

Date:

March 2013

Drawn by:

PH

Bowland

Tree Consultancy Ltd

01752 441117

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Rev:

The diagram is a detailed site plan for a residential development. It shows the layout of two plots, Plot 1 and Plot 2, which are rectangular buildings with multiple windows. Surrounding the plots are various trees and hedges. Trees are labeled T1 through T10, and hedges are labeled H1. A 'NEW DRIVEWAY - TO FOLLOW ROUTE OF EXISTING DRIVEWAY WITHIN TREE RPAs' is indicated. A 'NEW TIMBER BOUNDARY FENCE' is also shown. A note states: 'SECTION OF EXISTING DRIVEWAY THAT IS WITHIN TREE RPAs IS TO BE REMOVED CAREFULLY USING HAND OPERATED TOOLS UNDER ARBORICULTURAL GUIDANCE'. A north arrow is located in the top left corner.

Important: The original version of this plan was produced in 2013. This version is a revised version of the original. As such, a monochrome copy should not be relied upon.

