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ARBORICULTURAL IMPACT ASSESSMENT	
Site:	The Whins, Whins Lane, Read, Lancashire, BB12 7QY
Report Date:	31 October 2012
Prepared By:	Phill Harris – Chartered Arboriculturist
Report Ref:	BTC344
Agent for Client:	Bowsall Limited

Introduction and Rationale. Bowland Tree Consultancy Ltd was instructed to carry out an appraisal of the potential for the construction of a residential development at the above site to impact upon trees and, in turn, to advise on appropriate protective measures during development and on facilitation pruning and/or felling works where identified as necessary. Further to this instruction I confirm that I visited the site on 25 June and 28 August 2012 and carried out a survey of trees in accordance with BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations, and our disclaimer at page 6.

In this respect I set out a brief overview of my observations, findings and recommendations below, along with comments on any issues raised. I also enclose a Tree Survey Schedule (TSS) detailing specific tree related information and a preliminary Tree Impact Plan (TIP). The TIP shows the site under consideration with pertinent existing tree constraints detailed, plus an overlay of the proposed development with associated tree impacts indicated. The TIP is based upon a scaled electronic site proposal plan, as supplied by the client and, for the purpose of this report, I presume the details of the plan to be accurate.

The Site and the Proposal. The site under consideration is located in a suburban/rural edge area to the north of the village of Read, Lancashire, within the administrative boundaries of Ribbles Valley Borough Council. The site is bordered to the north by the low usage local access road Whins Lane (see Fig. 1, below), to the north-east by a detached residential property with gardens, to the south-east and south by open fields and to the west by a number of detached residential properties with gardens.

The site consists of a single-storey detached residential property with associated asphalt hard-standing and out-buildings in its northern section and extensive gardens around the house with trees, hedges and maintained grass. It stands on a moderate south facing slope and, as such, topography is variable. Vehicular access is via a single point off Whins Lane in the site's north-western corner.



Fig. 1: Whins Lane, as seen from outside the site looking west, with the crown of Oak tree T5 visible to the left



Fig. 2: The existing property, as seen from the west looking east, with group G9 in the background just right of centre

I am informed by the clients, Bowsall Ltd, that the proposal is to construct 16 new residential properties with associated gardens, garages, drives, hard-standing and access roads at the site under consideration, as detailed on the TIP. It is proposed that 15 of the properties will be accessed from a new vehicular access in the site's north-eastern corner off Whins Lane and the single remaining property is to be accessed from the existing point in the north-western corner. A pumping station and a drainage system with an associated 7 metre wide easement requirement are proposed for the south of the site, as detailed on the TIP.

The Trees. 38 individual trees (prefixed 'T'), 23 groups of trees (prefixed 'G') and six hedges (prefixed 'H') were surveyed in respect of the proposal and its associated potential to impact upon said vegetation, and the respective constraints are plotted on the TIP attached. I am informed by the planning office at Ribble Valley Borough Council that none of the trees at the site are the subject of a Tree Preservation Order and that the site itself does not stand within a Conservation Area.

The surveyed trees consist of various deciduous and evergreen broadleaf species including Common Oak, Silver Birch and Holly, and various deciduous and evergreen coniferous species including Larch and Norway Spruce. The trees are in the young to post-mature age range and stand at heights of up to 20 metres, have maximum diametrical crown spreads of up to 15.5 metres and stem diameters of up to 800 millimetres. Detailed tree dimensions and other pertinent information such as structural defects and physiological deficiencies, along with recommendations for remedial management works, are included in the TSS attached.

There are a number of individual trees at the site but the majority of the trees form components of groups. In this respect the site has a considerable number of outgrown Leyland Cypress hedges both internally and along its western and eastern boundaries (see Fig. 3, below). The majority of the trees in these outgrown hedge groups have included bark unions of branches and areas of decay resultant of past reduction pruning and subsequent regrowth, and most groups have constituent trees that have sustained substantial past branch failures, whilst several include trees that have failed at ground level (see Fig. 4, below). Due to the relatively high risk of branch failures and, as is the case with groups G8 and G11, their proximity to neighbouring properties and gardens, these outgrown hedges are considered to be unsuited for retention, either in the context of the proposal or the current site usage.



Fig. 3: Outgrown Leyland Cypress hedge forming group G11, along western boundary



Fig. 4: Substantial sized branch failure of approximately 300mm diameter from Leyland Cypress in outgrown hedge

A well-established conifer plantation made up mainly of Spruce and Larch with smaller numbers of other coniferous species and a very small percentage of deciduous and evergreen broadleaves stands within the southern part of the site. The Ecological Report for the site, as prepared by Pennine Ecological, concludes that the general structure of the plantation is poor and that the ground flora is species-poor. The trees that make up the plantation are mostly in the semi-mature age range and a number have sustained rootplate failure, evidently as a result of a lack of past silvicultural management (i.e. thinning works) during the group's establishment. This lack of thinning works has resulted in a closely spaced group with trees competing for light and, in turn, an established risk of future rootplate failure. Consecutively, these factors have substantially reduced the overall long-term retention value of the plantation.

The trees were appraised in accordance with BS5837:2012 Table 1 (attached) and, as detailed in Table A (overleaf), three of the trees were allocated high retention values of 'A', 11 of the trees and six of the groups were allocated a moderate retention value of 'B' and 19 of the trees, 15 of the groups and the six hedges were allocated a low retention value of 'C'. In addition, five of the trees and two of the groups were allocated 'U' categories as they are unsuitable for retention in the current context. With regard to Table A (overleaf) it should be noted that tree quality and value is categorised within the existing context without taking into account any site development related issues, but that the recommendations for works take the proposal into consideration where there are clearly definable potential impacts upon trees.

Table A: BS5837-2012 Retention Categories of the Surveyed Trees

	Ret. Cats.	Tree Numbers	Totals
Trees of a high quality that should be afforded appropriate consideration in the context of development	'A'	T5, T21, T38	3 Trees (7.9%)
Trees of a moderate quality that should be afforded appropriate consideration in the context of development	'B'	T1, T2, T11, T13, T19, T23, T25, T26, T27, T34, T35, G13, G14, G16, G17, G21, G22	11 Trees (28.9%) 6 Groups (26.1%)
Trees of a low quality that should be afforded appropriate consideration in the context of development	'C'	T3, T4, T6, T8, T9, T10, T12, T14, T15, T16, T18, T20, T22, T24, T29, T30, T31, T32, T37, G1, G2, G3, G4, G5, G6, G7, G9, G10, G12, G15, G18, G19, G23	19 Trees (50%) 14 Groups (60.9%) 6 Hedges (100%)
Trees unsuitable for retention	'U'	T7, T17, T28, T33, T36, G8, G11, G20	5 Trees (13.2%) 3 Groups (13%)
			= 38 Trees, 23 Groups & 6 Hedges in Total

The Proposal's Projected Impacts on Trees. As detailed in Table B (below) and on the TIP, implementation of the proposed development will require the removal of one 'B' category (i.e. moderate quality) tree, two 'B' category groups and part of a third 'B' category group, along with 13 'C' category (i.e. low quality) trees, 11 'C' category groups, two 'C' category hedges and part of a third 'C' category hedge. In this respect, I would note that the majority of the trees that require removal to facilitate the development are of low quality and value and should not therefore be considered a constraint to development.

Table B: Arboricultural Impacts of Proposed Development & Other Tree Removal Proposals

	Ret. Cats	Removals necessary to implement development	Removals suggested for non-development related reasons	Total number of tree removals
Trees of a high quality that should be afforded appropriate consideration in the context of development	'A'	-	-	-
Trees of a moderate quality that should be afforded appropriate consideration in the context of development	'B'	T11, G14, G17, G22 (partial)	-	1 Tree 2 Groups 1 Part Group
Trees of a low quality that should be afforded appropriate consideration in the context of development	'C'	T4, T6, T8, T9, T10, T12, T15, T16, T18, T29, T30, T31, T32, G1, G4, G5, G6, G7, G9, G10, G12, G18, G19, H1 (part), H4, H5	G2	13 Trees 11 Groups 2 Hedges 1 Part Hedge
Trees that should be removed for sound management reasons regardless of site plans	'U'	-	T7, T17, T28, T33, G8, G20	4 Trees 2 Groups
Totals		14 Trees, 12 Groups, 1 Part Group, 3 Hedges	4 Trees, 3 Groups	= 18 Trees, 15 Groups, 1 Part Group, 2 Hedges & 1 Part Hedge in Total

The partial removal of the plantation G22 is proposed, with the retention of suitably wind-firm trees within the group in the areas to the south of the pumping station and on either side of the drainage easement where practicable. An assessment of the trees in order to identify those considered suitable for retention should be carried out following initial site clearance works and establishment of the precise route of the drainage easement.

Mitigation for Projected Tree Losses. As detailed on the Landscape Layout, produced by Firewall Landscape Consultants Ltd, large-scale and extensive new tree planting is proposed as part of the landscaping scheme for the development. New tree planting proposed consists of a mix of individuals, groups and hedges within the private gardens, a replacement native hedge section along the road frontage, a small broadleaf native woodland copse in the site's north-eastern corner and a larger native woodland area to its southern section. The provision of broadleaf native woodland and hedges would have numerous benefits, including the preservation of local landscape character and heritage, a marked enhancement of the visual amenity of the area, and the provision of important habitat to a wide range of plants and animals.

Overall therefore, in consideration of the extent and quality of the proposed new tree planting and the provision of a considerably more sustainable and ecologically varied tree cover at the site, it is projected that the required tree removals will be more than adequately mitigated for over the long-term.

Tree Retention Recommendations. Adequate protection of retained tree Root Protection Areas (RPAs) during construction is essential if their long-term viability is to be assured. RPAs, which are calculated through a method provided in BS5837:2012, are ground areas around trees that are to be kept free from major disturbance throughout development through the installation of temporary protective fencing to form a Construction Exclusion Zone. The TSS lists the RPAs of the individually surveyed trees as areas in square metres and as radial distances in metres from stem centres, whilst the RPAs are indicated in magenta on the TIP. A Temporary Protective Fencing Specification is attached which gives details of the type, purpose and construction of the temporary protective fencing that should be used.

In respect of retained tree protection BS5837:2012 recommends that, where considered expedient, an Arboricultural Method Statement be prepared detailing special mitigation construction. Essentially, the Arboricultural Method Statement describes the procedures, working methods and protective measures to be used in relation to retained trees in order to ensure that they are adequately protected during the construction process. The production of and adherence to an Arboricultural Method Statement should be conditioned as part of a planning approval if considered necessary.

In addition to the points raised herein I would also emphasise the importance of ensuring that all relevant recommendations included under the General Recommendations section at page 5 be followed accordingly.

Summary and Conclusions. A development of 16 residential properties is proposed at the site under consideration. As such, 38 individual trees, 23 groups of trees and six hedges were surveyed in respect of the proposal and its associated potential to impact upon said vegetation. Three of the trees have high retention values, 11 of the trees and six of the groups have moderate retention values, 19 of the trees, 15 of the groups and the six hedges have low retention values, and five of the trees and two of the groups are unsuitable for retention in the current context.

My appraisal concludes that implementation of the proposed development will require the removal of one moderate quality tree, two moderate quality groups and part of a third moderate quality group, along with 13 low quality trees, 11 low quality groups and three low quality hedges. However, the removal of these trees can be more than adequately mitigated for through the provision of a considerably more sustainable and ecologically varied tree cover at the site, as per the Landscape Proposal.

I also conclude that the existing trees that are to be retained can be adequately protected throughout the development in accordance with BS5837:2012 provided that various recommendations made herein are followed.

Phill Harris MSc BSc(Hons) HND CEnv MArborA MICFor
Chartered Arboriculturist

 Institute of
Chartered Foresters
Registered Consultant



Enclosures: Tree Survey Schedule
BS5837:2012 Table 1
Tree Impact Plan
Temporary Protective Fencing Specification

GENERAL RECOMMENDATIONS

Non-Development Related Tree Works and Recommendations. Any general management pruning works for retained trees that are stated to be non-development related, as detailed in the TSS, are recommended in accordance with prudent arboricultural management and should therefore be carried out regardless of any site plans and potential changes in land usage. All tree works should be carried out in accordance with BS3998:2010 - Tree Work – Recommendations.

Tree Work Related Consents. No tree pruning or removal works should commence on site until necessary consents have been obtained from the LPA as part of a planning approval or in respect of any statutory tree protection.

Protected Species. Hedges, climbing plants, shrubs and trees should be inspected for birds' nests prior to any clipping, pruning or removal works, and any work likely to destroy or disturb active nests should be avoided until the young have fledged. All personnel carrying out tree works should also be vigilant of the possibility that roosting bats may be present in trees and, if any bat roosts are identified, then it is essential that works are halted immediately and that a suitably qualified and experienced ecologist investigate prior to works continuing.

Arboricultural Contractors. All tree works should be carried out by suitably qualified and experienced arboricultural contractors carrying appropriate public liability insurance cover and be implemented to the minimum current CE and UK industry standards and in accordance with industry codes of practice. Only certificated personnel should, in accordance with The Control of Pesticides Regulations, apply any pesticides.

Contractors and Subsequently Identified Tree Defects. Contractors should be made aware that, should any significant tree defects become apparent during operations that would not have been immediately obvious to the surveyor, then such defects should be notified immediately to the client and subsequently confirmed to the consultant within five working days.

New Tree Planting. Where trees are removed in order to facilitate construction then new tree planting proposals should be included as part of the landscape design plan for the site. All tree planting should be carried out in accordance with BS4428:1989 - Code of Practice for General Landscape Operations, BS3936-1:1992, Nursery Stock – Part 1: Specification for Trees and Shrubs and BS4043:1989, Transplanting Root-Balled Trees where applicable.

Retained Tree Management. Any tree risk management appraisal and subsequent recommendations made in this report were based on observations and site circumstances at the time of my survey. Trees are dynamic living organisms whose structure is constantly changing and even those evidently in good condition can succumb to damage and/or stress. In this respect I would note that, under the Occupiers' Liability Act (1957 & 1984), site occupants have a duty of care to take reasonable steps to prevent or minimise the risk of personal injury and/or damage to property from any tree located within the curtilage of the land they occupy. It is accepted that these steps should normally include commissioning a qualified and experienced arboriculturist to survey their trees in order to identify any risk of harm to persons or damage to property that they may present and, where unacceptable risks are identified, taking suitable remedial action to negate those risks.

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 potential 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.

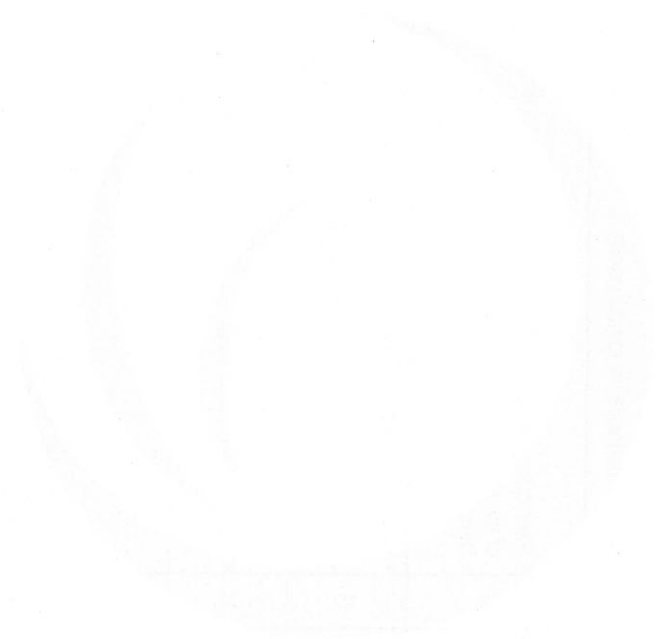
Where tree stem locations are not included on the plan(s) provided then they are plotted at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these 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 should 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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TREE SURVEY SCHEDULE & BS5837:2012 'TABLE 1'



TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT AND PROTECTION APPRAISAL			
Site:	The Whins, Whins Lane, Read, Lancashire, BB12 7QY		
Client:	Bowsall Limited		

Surveyor:	Phill Harris – Chartered Arboriculturist		
Assessment Dates:	25 June & 28 August 2012		
Job Reference:	BTC344		

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	Silver Birch	16.5	1x430 1x350 (ts) W	N 5 E 4 S 6 W 6	2.5-SW 1.5	M	G	- Stem bifurcates into sub-stems at a height of approximately 0.7m. - Light to moderate ivy to north stem.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	20+	B1/2	139	6.65
T2	Sycamore	15	1x400 1x350 (ts) W	N 5 E 5 S 3.5 W 5	2.5-SE 2.5	EM	G	- Stem bifurcates into co-dominant sub-stems at a height of approximately 0.7m. - Dense ivy up stem.	- Retain in accordance with development proposals. - Ensure Root Protection Area (RPA) is protected with Construction Exclusion Zone (CEZ), as far as is practicable, throughout development. - Sever ivy.	40+	B1/2	128	6.38
T3	Ash	14	270 W	N 5 E 4 S 3.5 W 0	9-S 6	SM	G	- Highly biased crown to east due to suppression by neighbouring tree T2. - Severe lower stem curvature and severe stem lean to south.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	10+	C1	33	3.24
T4	Apple	5.5	160 W	N 0 E 5 S 5 W 0	1.2-E 0.5	EM	M	Severe stem lean to east.	- Remove in order to develop site. - Grub out stump.	10+	C1	12	1.92
T5	Common Oak	12.5	800# W	N 7 E 5 S 8.5 W 6	2-S 0.5	M	G	- Stem divides into multiple primary branches at a height of approximately 2m. - Very dense ivy up stem and into branches. - Home heating fuel tank below crown close to stem.	- Retain in accordance with development proposals. - Sever ivy. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development. - Particular care should be taken when designing and constructing proposed footpath in the RPA to the north of the tree, with suitable methods and materials used to minimise tree root and stem damage and an arboricultural method statement of the footpath construction produced.	40+	A 1/2/3	290	9.6

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 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 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: 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, EM = early-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 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: Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate

Cat. Grade: Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)

RPA m²: Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1

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

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 "e" symbol

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT AND PROTECTION APPRAISAL

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No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
T6	Sargent Cherry	6	370	N 3 E 4.5 S 5 W 3.5	1.5 0.3	M	M	- Stem divides into multiple primary branches at a height of approximately 1.5m with tight forks. - Crown showing signs of a minor reduction in vitality.	- Remove in order to develop site. - Grub out stump.	10+	C1	62	4.44
T7	Crab Apple	5.5	110	N 2 E 2 S 2 W 2	1.5-N 1	Y	P	- Crown showing signs of a significant reduction in vitality with very sparse foliage cover. - In decline with short projected remaining safe life expectancy.	- Remove due to short remaining safe life expectancy. - Grub out stump.	<10	U	5	1.32
T8	Sargent Cherry	5	250	N 3.5 E 5 S 4.5 W 4	1.5 0.5	EM	M	- Stem divides into multiple primary branches at a height of approximately 1.5m with tight forks. - Crown showing signs of a minor reduction in vitality.	- Remove in order to develop site. - Grub out stump.	10+	C1	28	3
T9	Crab Apple	9	270	N 2 E 1 S 5.5 W 5.5	1.2-N 2	EM	M	No visible structural defects.	- Remove in order to develop site. - Grub out stump.	20+	C1	33	3.24
T10	Crab Apple	9	270	N 1 E 3 S 4.5 W 4	1.1-E 1	EM	G	No visible structural defects.	- Remove in order to develop site. - Grub out stump.	20+	C1	33	3.24
T11	Tulip Tree	13	330	N 3 E 3 S 3 W 3	5 10	SM	G	Stem trifurcates into upright primary branches at a height of approximately 5m with tight forks.	- Remove in order to develop site. - Grub out stump.	20+	B1/2	49	3.96
T12	Larch	9	260	N 5 E 2 S 0 W 4	6-NE 6	SM	M	Highly biased crown to north due to suppression by neighbouring tree(s).	- Remove in order to develop site. - Grub out stump.	10+	C1	31	3.12
T13	Sycamore	13	1x310 1x280 1x210 (ms)	N 4 E 5 S 7 W 5	3-S 2	EM	G	Stem trifurcates into sub-stems at a height of approximately 0.5m with tight forks.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	40+	B1/2	99	5.61
T14	Goat Willow	15	380	N 4 E 4 S 4 W 2	4.5-E 6	M	M	- Stem bifurcates into co-dominant primary branches at a height of approximately 1.5m with a very tight fork and included bark union. - Crown showing signs of a moderate reduction in vitality with slightly small leaves and moderately sparse foliage cover.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	10+	C1	65	4.56

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
T15	Beech	7	150	N 2 E 1 S 4.5 W 4.5	1.2-W 0.5	Y	G	Moderately biased crown and moderate stem lean to west.	- Remove in order to develop site. - Grub out stump.	40+	C2	10	1.8
T16	Larch	15	390	N 2 E 3 S 3 W 6	4.5-W 1.5	EM	M	Crown showing signs of a moderate reduction in vitality.	- Remove in order to develop site. - Grub out stump.	10+	C1	69	4.68
T17	Crab Apple	6.5	230	N 2 E 2 S 2.5 W 4.5	2-E 2	SM	P	- Crown showing signs of a substantial reduction in vitality. - In decline with short projected remaining safe life expectancy.	- Remove due to short remaining safe life expectancy. - Grub out stump.	<10	U	24	2.76
T18	Silver Birch	15	260	N 2 E 2 S 6 W 4	6-W 7	SM	M	Moderately small leaves and moderately sparse foliage cover.	- Remove in order to develop site. - Grub out stump.	10+	C1	31	3.12
T19	Beech	11	360	N 5 E 4 S 5 W 2.5	1.2-N 2	SM	G	Occluded squirrel damage to branch unions.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	40+	B1	59	4.32
T20	Horse Chestnut	16	630	N 3.5 E 6.5 S 7 W 4.5	1.5-E 1	EM	M	Upright primary arises from west side of stem at a height of approximately 1.2m with an included bark union, which is showing early signs of incipient failure.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	10+	C1	180	7.56
T21	Common Oak	11	790	N 3 E 5 S 5 W 5	2-SE 0	M	M	Veteran tree with large open partially occluded cavity up west side of stem.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	10+	A3	282	9.48
T22	Silver Birch	13	230	N 2 E 2 S 3.5 W 1.5	6-N 6	SM	M	Small leaves and moderately sparse foliage cover.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	10+	C1/2	24	2.76
T23	Silver Birch	15	410	N 4 E 5 S 5 W 3	5-E 8	EM	M/G	No visible structural defects.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	20+	B1/2	76	4.92

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT AND PROTECTION APPRAISAL

Site: The Whins, Whins Lane, Read, Lancashire, BB12 7QY
Client: Bowsall Limited

Surveyor: Phill Harris – Chartered Arboriculturist
Assessment Dates: 25 June & 28 August 2012
Job Reference: BTC344

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No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
T24	Sycamore	9	150	N 1.5 E 4 S 4 W 1	3-SE 1	Y	G	Highly biased crown to south-east.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	40+	C1	10	1.8
T25	Silver Birch	14	290	N 2 E 3 S 3 W 1	3-SE 7	SM	G	Slightly biased crown to east.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	20+	B1/2	38	3.48
T26	Hemlock	13	210	N 2 E 2 S 2 W 2	2 4.5	Y	G	No visible structural defects.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	40+	B2	20	2.52
T27	Silver Birch	15	1x270 1x250 (ts)	N 5.5 E 4 S 5 W 4	3-NE 5	M	M/G	Stem bifurcates into co-dominant sub-stems at a height of approximately 0.7m.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	20+	B1/2	61	4.42
T28	Sargent Cherry	5.5	360	N 1.5 E 5.5 S 5.5 W 3	1.5 1	M	P	- Stem divides into multiple primary branches at a height of approximately 1.5m. - Crown showing signs of a significant reduction in vitality with moderately small leaves and sparse foliage cover. - Short projected remaining safe life expectancy.	- Remove due to short remaining safe life expectancy. - Grub out stump.	<10	U	59	4.32
T29	Wild Cherry	14.5	440	N 5 E 5 S 4 W 3	3-E 6	M	M	Crown showing signs of a moderate reduction in vitality with moderately small leaves and moderately sparse foliage cover.	- Remove in order to develop site. - Grub out stump.	10+	C1	88	5.28
T30	Wild Cherry	10	2x120 1x90 (ts)	N 5.5 E 4 S 0 W 3	2-E 2	SM	M	- Three stems arise at ground level with tight forks. - Crown showing signs of a moderate reduction in vitality with moderately small leaves and moderately sparse foliage cover.	- Remove in order to develop site. - Grub out stump.	10+	C1	17	2.31
T31	Silver Birch	10	110	N 1.5 E 1.5 S 1.5 W 1.5	2 2	Y	G	No visible structural defects.	- Remove in order to develop site. - Grub out stump.	40+	C1	5	1.32
T32	Downy Birch	10	110	N 1.5 E 1.5 S 1.5 W 1.5	1-W 1	Y	G	No visible structural defects.	- Remove in order to develop site. - Grub out stump.	40+	C1	5	1.32

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT AND PROTECTION APPRAISAL

Site: The Whins, Whins Lane, Read, Lancashire, BB12 7QY

Client: Bowsall Limited

Surveyor: Phill Harris – Chartered Arboriculturist

Assessment Dates: 25 June & 28 August 2012

Job Reference: BTC344

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
T33	Cherry Laurel	6	6x70 (ms)	N 2 E 2 S 4 W 3	0-S 0	M	P	- Multi-stemmed from ground level. - Extensive crown dieback. - In decline with short projected remaining safe life expectancy.	- Remove due to short remaining safe life expectancy. - Grub out stump.	<10	U	20	2.52
T34	Sycamore	15	3x300 (ms)	N 3.5 E 5 S 5 W 2	5-E 2	EM	M	Three stems arise at ground level.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	40+	B2	122	6.24
T35	Sycamore	16	2x350 (ts)	N 3 E 4 S 5 W 3	2 5	EM	G	Stem bifurcates into sub-stems at a height of approximately 0.5m with a very tight fork.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	40+	B2	111	5.94
T36	Goat Willow	7	6x220 (ms)	N 5 E 5 S 5 W 5	1 0	PM	M	- Multi-stemmed from ground level. - Short projected remaining safe life expectancy in current circumstances.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development. - Coppice, cutting stems down to a height of approximately 0.5m.	<10	U	132	6.47
T37	Common Oak	6	580	N 4 E 4 S 4 W 4	2-N 0.5	PM	M	2m long cavity to south side of stem extending up throughout its length.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	10+	C1	152	6.96
T38	Red Oak	17	380	N 2 E 2 S 5 W 4	6-NW 10	SM	G	No visible structural defects.	- Retain in accordance with development proposals. - Ensure RPA is protected with CEZ, as far as is practicable, throughout development.	40+	A1	65	4.56
G1	6no. Leyland Cypress	≤ 9.5	≤ 470	N ≤ 1.5 E ≤ 1.5 S ≤ 2 W ≤ 2	≥ 0 ≥ 0.5	SM-EM	G	- Very closely spaced linear group. - All have tight forks and/or included bark unions of branches.	- Remove in order to develop site. - Grub out stumps.	10+	C1	≤ 100	≤ 5.64
G2	1no. Hawthorn, 1no. Cherry Laurel, 1no. Elder	≤ 7.5	≤ 250	N ≤ 3 E ≤ 2 S ≤ 2 W ≤ 2	≥ 1.5 ≥ 1	EM-M	M	- Small loose group of shrubs and small trees. - Relatively low value.	- Remove due to low value. - Grind out stumps.	10+	C1/2	≤ 28	≤ 3
G3	4no. Sycamore	≤ 12	≤ 1x230 1x180 (ts)	N ≤ 5 E ≤ 0 S ≤ 8 W ≤ 4.5	≥ 1.5-S ≥ 0	Y-SM	G	- Very closely spaced group. - Semi-mature trees to south have highly biased crowns and severe stem leans to south.	- Retain in accordance with development proposals. - Ensure RPAs are protected with CEZ, as far as is practicable, throughout development.	20+	C1	≤ 38	≤ 3.5

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT AND PROTECTION APPRAISAL		Surveyor: Phill Harris – Chartered Arboriculturist		Page: 6 of 9
Site: The Whins, Whins Lane, Read, Lancashire, BB12 7QY		Assessment Dates: 25 June & 28 August 2012		
Client: Bowsall Limited		Job Reference: BTC344		

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
G4	Cherry Laurel	≤ 9	≤ 70	N ≤ 2 E ≤ 3 S ≤ 4 W ≤ 3	≥ 0 ≥ 0	M	G	- Closely spaced group of multi-stemmed shrubs. - Relatively low value.	- Remove in order to develop site. - Grub out stumps.	40+	C1/2	≤ 20	≤ 2.52
G5	8no. Leyland Cypress	≤ 10	≤ 170	N ≤ 1.5 E ≤ 1.5 S ≤ 1.5 W ≤ 1.5	≥ 2 ≥ 0.5	Y	G	- Very closely spaced linear group. - Most have tight forks and/or included bark unions of branches.	- Remove in order to develop site. - Grub out stumps.	10+	C1	≤ 13	≤ 2.04
G6	Elder, Cherry Laurel, Privet, Rowan, Bird Cherry, Holly, etc.	≤ 6	≤ 4x70 (ms)	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 0 ≥ 0	Y-EM	G	- Closely spaced group of young trees and shrubs. - Relatively low value.	- Remove in order to develop site. - Grub out stumps.	40+	C1/2	≤ 9	≤ 1.68
G7	2no. Larch	≤ 16	≤ 350	N ≤ 5 E ≤ 2 S ≤ 0 W ≤ 4	≥ 3-N ≥ 5	SM	M	- Both trees have biased crowns to north. - Both trees' crowns are showing signs of a reduction in vitality.	- Remove in order to develop site. - Grub out stumps.	10+	C1	≤ 55	≤ 4.2
G8	approx. 10no. Leyland Cypress	≤ 15	≤ 500	N ≤ 2.5 E ≤ 2.5 S ≤ 2.5 W ≤ 2.5	≥ 1 ≥ 1	EM-M	G	- Very closely spaced linear group along boundary. - All but one of the trees has been topped. - All have tight forks and/or included bark unions of branches. - One tree has sustained upper crown failure. - Short projected remaining safe life expectancies.	- Remove due to short remaining safe life expectancies. - Grub out stumps outside RPA of retained tree T13 and grind out stumps within this tree's RPA.	<10	U	≤ 113	≤ 6
G9	21no. Leyland Cypress	≤ 17	≤ 500	N ≤ 2 E ≤ 2 S ≤ 2 W ≤ 2	≥ 0 ≥ 1	SM-EM	G	- Very closely spaced linear group along boundary. - All have tight forks and/or included bark unions of branches.	- Remove in order to develop site. - Grub out stumps.	10+	C1	≤ 113	≤ 6
G10	25no. Leyland Cypress	≤ 19	≤ 400	N ≤ 2 E ≤ 2 S ≤ 2 W ≤ 2	≥ 1 ≥ 0.5	SM-EM	G	- Very closely spaced linear group along boundary. - All have tight forks and/or included bark unions of branches.	- Remove in order to develop site. - Grub out stumps.	10+	C1	≤ 72	≤ 4.8
G11	approx. 100no. Leyland Cypress	≤ 19	≤ 450	N ≤ 2.5 E ≤ 2.5 S ≤ 2.5 W ≤ 2.5	≥ 0 ≥ 0	SM-EM	G	- Very closely spaced linear group mostly along boundary. - Approximately 70% have been reduced to a height of approximately 13m. - All have tight forks and/or included bark unions of branches. - Several trees have sustained upper crown failure. - One tree has sustained rootplate failure. - Short projected remaining safe life expectancies.	- Remove due to short remaining safe life expectancies. - Grub out stumps outside retained tree RPAs and grind out stumps within tree RPA.	<10	U	≤ 92	≤ 5.4

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT AND PROTECTION APPRAISAL

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Assessment Dates: 25 June & 28 August 2012

Job Reference: BTC344

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No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
G12	Cherry Laurel	≤ 8	≤ 70	N ≤ 4 E ≤ 7 S ≤ 4 W ≤ 2	≥ 0 ≥ 0	M	G	Closely spaced group of multi-stemmed shrubs.	- Remove in order to develop site. - Grub out stumps.	20+	C1/2	≤ 20	≤ 2.52
G13	3no. Silver Birch	≤ 13	≤ 220	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 4 ≥ 5	SM	M	Loose group.	- Retain in accordance with development proposals. - Ensure RPAs are protected with CEZ, as far as is practicable, throughout development.	20+	B1/2	≤ 22	≤ 2.64
G14	3no. Silver Birch	≤ 16	≤ 280	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 5 ≥ 9	SM	M	Loose group.	- Remove in order to develop site. - Grub out stumps.	20+	B1/2	≤ 35	≤ 3.36
G15	1no. Elder, 1no. Hawthorn	≤ 8	≤ 200	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 1 ≥ 0	M	M	- Small group. - Relatively low value.	- Retain in accordance with development proposals. - Ensure RPAs are protected with CEZ, as far as is practicable, throughout development.	10+	C1/2	≤ 18	≤ 2.4
G16	4no. Swedish Whitebeam, 2no. Silver Birch	≤ 14	≤ 280	N ≤ 3.5 E ≤ 3.5 S ≤ 3.5 W ≤ 3.5	≥ 3 ≥ 2.5	Y-SM	G	- Very closely spaced linear group. - To base of retaining structure up to access road.	- Retain in accordance with development proposals. - Ensure RPAs are protected with CEZ, as far as is practicable, throughout development.	20+	B1/2	≤ 35	≤ 3.36
G17	2no. Silver Birch	≤ 17	≤ 370	N ≤ 5 E ≤ 3 S ≤ 3 W ≤ 3	≥ 6-N ≥ 5	EM	G	Loose group.	- Remove in order to develop site. - Grub out stumps.	20+	B1/2	≤ 62	≤ 4.44
G18	Leyland Cypress	≤ 19	≤ 400	N ≤ 2 E ≤ 2 S ≤ 2 W ≤ 2	≥ 1 ≥ 0.5	SM	G	- Very closely spaced linear L-shaped group internal to site. - All have tight forks and/or included bark unions of branches.	- Remove in order to develop site. - Grub out stumps.	10+	C1	≤ 72	≤ 4.8
G19	approx. 20no. Beech	≤ 11	≤ 250	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 1 ≥ 0	SM	G	- Very closely spaced linear group formed from overgrown hedge. - All trees subsequently have highly biased crowns.	- Remove in order to develop site. - Grub out stumps.	40+	C1/2	≤ 28	≤ 3
G20	7no. Leyland Cypress	≤ 13.5	≤ 400	N ≤ 2.5 E ≤ 2.5 S ≤ 2.5 W ≤ 2.5	≥ 0 ≥ 0.5	SM-EM	G	- Very closely spaced linear group internal to site. - All have tight forks and/or included bark unions of branches. - Several trees have partially failed. - Short projected remaining safe life expectancies.	- Remove due to short remaining safe life expectancies. - Grub out stumps outside retained tree RPAs and grind out stumps within tree RPA.	<10	U	≤ 72	≤ 4.8

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT AND PROTECTION APPRAISAL

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No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
G21	approx. 5no. Goat Willow	≤ 9	≤ 6x150 (ms)	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 0.5 ≥ 0	SM-EM	G	- Closely spaced group. - All are multi-stemmed from ground level.	- Retain in accordance with development proposals. - Ensure RPAs are protected with CEZ, as far as is practicable, throughout development. Coppice, cutting stems down to a height of approximately 0.3m.	20+	B1/2	≤ 61	≤ 4.41
G22	Larch, Norway Spruce, Austrian Pine, Beech, Oak, Rowan, Holly, Silver Birch, Sycamore, Horse Chestnut, Ash, Wild Cherry, etc.	≤ 20	≤ 400	N ≤ 4 E ≤ 4 S ≤ 4 W ≤ 4	≥ 0.5 ≥ 1	Y-SM	G	- Relatively evenly aged (mostly semi-mature) plantation consisting mainly of evergreen and deciduous conifers with Larch and Spruce being dominant. - Relatively small number of individual young to semi-mature deciduous broadleaves within. - Very closely spaced in most parts. - No signs of previous management. - Widespread self-set young Elder and Holly and some Cherry Laurel. - Some established Rhododendron. - Substantial number of windblown trees within plantation.	- Remove sufficient area of plantation to allow construction and implementation of drainage easement, as per plans. - Retain suitably wind-firm trees on either side of easement – trees to be retained to be identified following initial clearance works. - Ensure RPAs of retained trees are protected with CEZ, as far as is practicable, throughout development. - Convert to broadleaf woodland through long-term management – will require preparation and adoption of woodland management plan. - Carry out annual risk assessment inspections of retained trees.	20+	B1/2	≤ 72	≤ 4.8
G23	approx. 3no. Goat Willow	≤ 9	≤ 6x200 (ms)	N ≤ 1 E ≤ 3 S ≤ 8 W ≤ 8	N/A ≥ 0	PM	M	- Closely spaced group. - All are multi-stemmed from ground level. - Several stems have previously partially failed.	- Retain in accordance with development proposals. - Ensure RPAs are protected with CEZ, as far as is practicable, throughout development. - Coppice, cutting stems down to a height of approximately 0.5m.	10+	C1/2	≤ 109	≤ 5.88
H1	Hawthorn, Bird Cherry, Sycamore, Ash, Cherry Laurel, Holly, Hazel, etc.	≤ 6	≤ 70	≤ 2 wide	N/A ≥ 0	M	G	- Overgrown hedge along road frontage. - Mix of species. - Number of large spaces along length. - Relatively poor quality.	- Remove section to east in order to obtain necessary visibility splay and to construct footpath. - Replace with native deciduous hedge of mixed species. - Retain section to west and lay plants and replant spaces with native deciduous species mix.	10+	C2	N/A	≤ 0.84
H2	Beech	≤ 7	≤ 150	≤ 2 wide	N/A ≥ 0	Y	G	- Young overgrown hedge at south-eastern boundary. - Suppressed by neighbouring Leyland Cypress group.	Retain and reinstate as hedge.	40+	C1/2	N/A	≤ 1.8

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT AND PROTECTION APPRAISAL		
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Surveyor:	Phill Harris – Chartered Arboriculturist	
Assessment Dates:	25 June & 28 August 2012	
Job Reference:	BTC344	

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
H3	Hawthorn, Beech	≤ 7	≤ 200	≤ 2 wide	N/A ≥ 0	SM	P-G	- Established overgrown hedge along southern boundary. - Suppressed by neighbouring plantation. - Mostly Hawthorn with intermittent young Beech trees within.	Retain and reinstate as hedge, whilst retaining good quality individual trees where applicable.	40+	C2	N/A	≤ 2.4
H4	Beech	≤ 4.5	≤ 150	≤ 2 wide	N/A ≥ 0	Y	G	Two lengths of maintained hedge internal to site.	- Remove in order to develop site. - Grub out stumps.	40+	C1/2	N/A	≤ 1.8
H5	Beech	≤ 4.5	≤ 150	≤ 2 wide	N/A ≥ 0	Y	G	Length of maintained hedge internal to site.	- Remove in order to develop site. - Grub out stumps.	40+	C1/2	N/A	≤ 1.8
H6	Holly	≤ 7	≤ 250	≤ 7 wide	N/A ≥ 0	EM	G	Overgrown section of hedge approximately 10m in length.	Retain and reinstate as hedge.	40+	C1/2	N/A	≤ 3

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
Trees to be considered for retention		
	1 2 3	
	1 2 3	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Mainly arboricultural qualities 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) Mainly landscape qualities Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features Mainly cultural values, including conservation Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Green
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 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	Blue
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	Grey



KEY

T = Surveyed Individual Tree
G = Surveyed Group of Trees
H = Surveyed Hedge

Please refer to associated Arboricultural Report for specific details in respect of items below.

Tree Categories:

Trees to be Considered for Retention:

- Category 'A' Tree/Group/Hedge
Those of 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 a Low Quality with an Estimated Remaining Life Expectancy of at Least 10 Years, or Young Trees

Trees Unsuitable for Retention:

- Category 'U' Tree/Group/Hedge
Those in Such a Condition that they Cannot Realistically be Retained as Living Trees in the Proposed Development Land Use for Longer Than 10 Years

Note 1: The stated locations of surveyed trees T15, T16, T19, T21, T22, T23, T24, T25, T26, T27, T28, T29, T30, T31, T32, T33, T34, T35, T36, T37, T38, G1, G2, G3, G4, G5, G6, G7, G8, G9, G10, G11, G12, G13, G14, G15, G16, G17, G18, G19, G20, G21, G22 were dictated by the surveyor onto the topographical survey plan provided by the client, using a total station. The locations of trees T1, T2, T3, T4, T7, T8, T10, T11, T12, T13, T14, T17, T18, T20, T32, T33, T34, T35, T36, T37, T38, G1, G2, G3, G4, G5, G6, G7, G8, G9, G10, G11, G12, G13, G14, G15, G16, G17, G18, G19, G20, G21, G22 were not dictated by the surveyor and their locations cannot therefore be considered to be exact, and this plan should be used in conjunction with the site visit or site inspection within the context of the design proposal.

Note 2: Vegetation with numbers marked in grey are proposed for removal.

Root Protection Areas (RPAs):

RPAs
Should be Protected Throughout
Development Works with Protective Fencing to form a Continuous Enclosure Zone

Project:
THE WHINS
WHINS LANE
READ
LANCASHIRE
B812 7QY

Client:
BOWSALL LTD

Title:
TREE IMPACT PLAN
In Relation to Proposal to Construct 16no. Residential Units

Scale:
1:500@A3

Date:
October 2012

Drawn by:
PH

**Bowland
tree consultancy Ltd**
e: info@bowlandtreeconsultancy.co.uk
t: 01200 441117

Ref: BT/C344-TP

Rev:

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 used as a design.

- 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

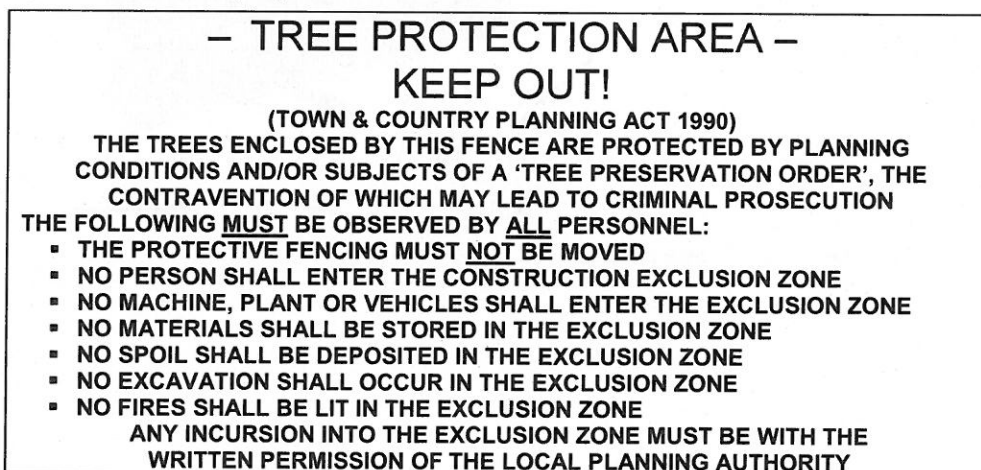


Figure 2: BS5837:2012 Default specification for protective barrier

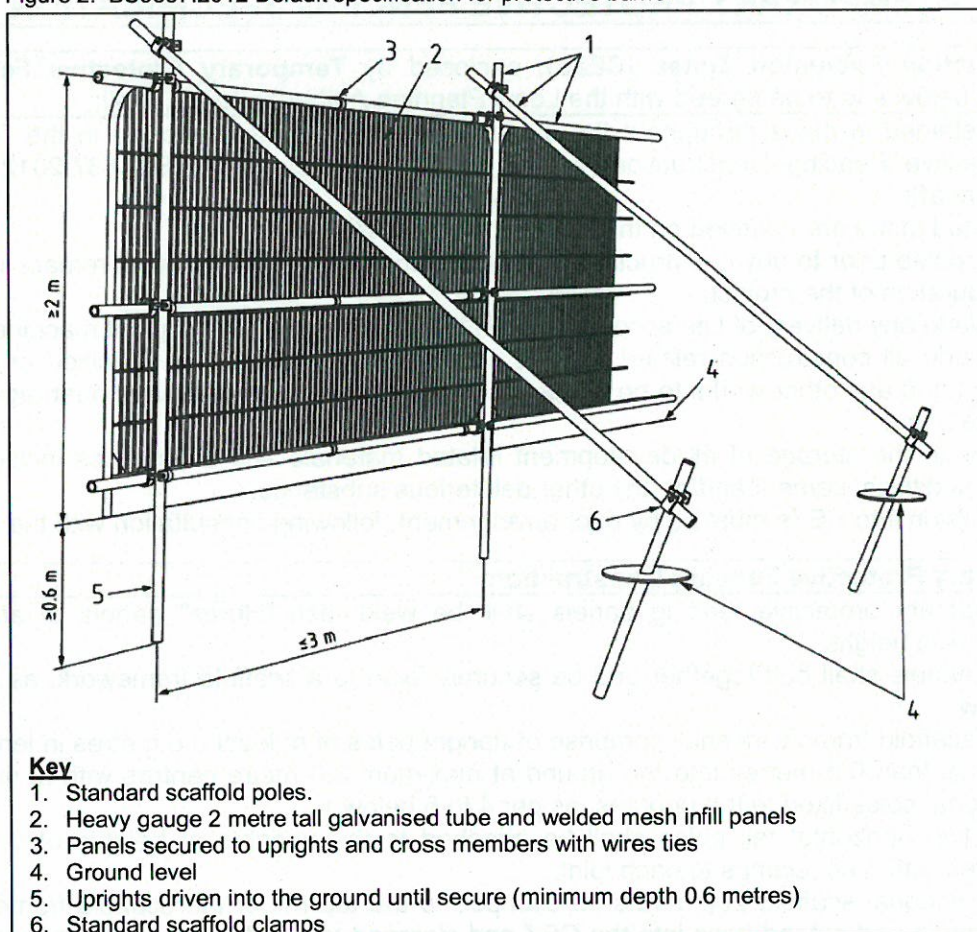


Figure 3: BS5837:2012 Examples of above-ground stabilising systems

