ARBORICULTURAL IMPACT ASSESSMENT

Cholstrey Road,
Leominster

September 2019

Ian Monger *MSc, BSc (Hons), TechCert (ArborA) MArborA*

Barton Hyett Associates
Arboricultural Consultants

In association with

CSA environmental

Summary table		
Site Name:	Cholstrey Road, Leominster	
Project reference:	C.3258	
Site Address:	Cholstrey Road, Ebnall, Leominster, Herefordshire	
Nearest Postcode:	HR6 9AP	
Central Grid reference:	SO 47564 58894	
Local Planning Authority:	Herefordshire Council	
Relevant planning policies:	Herefordshire Local Plan Core Strategy 2011-2031: LD1 Landscape and townscape; LD2 Biodiversity and geo diversity; LD3 Green infrastructure	
Statutory Controls:	**Tree Preservation Order**	**Conservation Area**
	No	No
Soil Type: **(Source: BGS online soils map © NERC 2019)**	**Superficial/Drift**	**Bedrock**
	Slightly acidic, intermediate depth clayey loam to silty loam and slightly acidic, shallow loam to sandy loam	Raglan Mudstone Formation siltstone, mudstone and sandstone
Topographical Survey:	Survey Solutions Topographical Survey 23641cv-01 (February 2019)	
Site Layout:	Proposed Site Plan Zeb1280-PL-015F	
Notes:		
Report author:	Ian Monger - Senior arboriculturist	
Date of issue:	24 September 2019	

Arboricultural ASSOCIATION Professional Member
PR:179

Institute of Chartered Foresters registered

REPORT CONTENTS:

1. Instruction

1.1. Barton Hyett Associates Ltd have been instructed by CSA Environmental on behalf of the client Living Space Housing and Fortis to survey trees located at land at Cholstrey Road, Ebnall, Leominster, Herefordshire ('the site') in accordance with BS5837:2012 '*Trees in relation to design, demolition and construction - recommendations*'.

1.2. The scope of the instruction was to inspect trees relevant to a planning application at the site and to provide an assessment of the potential impact of the proposed development on the site's arboricultural resource.

2. Site Description

2.1. The site is located at the west extent of the urban area of Leominster, and about 2 kilometres from its centre, in the neighbourhood of Barons' Cross. It is to the immediate east of the junction of the B4360 Cholstrey Road with Ginhall Lane. The site consists of the detached dwelling West Winds and it's enclosed front and rear gardens, an adjoining paddock to the north-west and an adjoining field to the north. All three parcels of land have vehicular access from Cholstrey Road.

2.2. The outer site boundaries are generally hedgerows strengthened with stock fencing in places. Along the road frontages, the hedges are maintained, with mature mixed native species hedgerows between the site and adjoining land to the north-east. The south-east site boundary includes larger out-grown cypress hedgerow trees and natural regeneration.

2.3. Boundaries between the parcels are of wire stock fencing with some remnant hedgerow shrubs and trees. The garden of West Winds contains a range of planted garden trees and shrubs, including fruit and ornamental trees.

2.4. An off-site mature English oak tree is the most prominent arboricultural feature and grows close to the south-east boundary of the north site field.

2.5. None of the trees within or immediately adjacent to the site are protected by Tree Preservation Order (TPO), and the site is not within a Conservation Area.

3. Tree Survey Findings

3.1. Totals of 22 trees, three groups of trees and 13 hedgerows were surveyed. These are summarised in terms of their quality in accordance with the recommendations of BS5837 below, and shown in more detail on the tree survey and constraints plan (section 2) and within the tree survey schedule (section 3).

	Total	A - High-quality trees whose retention is most desirable.	B - Moderate quality trees whose retention is desirable.	C - Low-quality trees which could be retained but should not significantly constrain the proposal.	U - Very poor quality trees that should be removed unless they have high conservation value.
Trees	**22**	-	11	10	1
Groups	**3**	-	-	3	-
Hedgerows	**13**	-	11	2	-
Total	**38**	**-**	**22**	**15**	**1**

3.2. T1 cherry (C1) is a prominent tree within the front garden on West Winds. It is in a poor state of health and has an advanced infection of Bacterial Canker of Cherry *(Pseudomonas syringas* pv. *morsprunorum).* The disease is disfiguring and debilitating and will significantly reduce the tree's useful life expectancy.

3.3. T19 cherry (B1) grows within the paddock close to the rear garden of West Winds. It is in good health and is a large spreading tree and is visually prominent.

3.4. T21 English oak (B1) is perhaps the most prominent of the surveyed trees, in terms of visual impact, size and life expectancy. It is an off-site tree but significantly overhangs the site.

3.5. T22 crack willow (U) is immediately next to the English oak tree. It has the serious irremediable defect of cracked bark-included unions at its base and failed stems. Three stems towards the site have split basal unions and decay, and the likelihood of failure into the site is significantly increased. Removal of the stems at the boundary line would reduce this likelihood, but ultimately it would be preferable for the tree owner to fell the tree.

3.6. H7 (B2) is a visually prominent mature, unmaintained boundary hedgerow of Hawthorn, hazel, damson, elder, common ash, English elm which runs along the north-east rear garden and paddock boundary with adjoining land. Although the subsided stem(s) of damson within the rear garden of West Winds should be removed, generally the mature, overhanging canopies of the hedgerow should be retained, and sufficient space retained along this boundary to avoid future conflict.

3.7. H2, H3, H4 and H5 form a linear boundary feature with adjoining open space. H2 and H4 include Leyland and Lawson cypress trees which have been historically topped at a low level, then allowed to regrow. Two or three individuals have grown to a much larger size and have suppressed their neighbouring trees. The upright stem regrowth is capable of exerting significant force on the unions in high winds, and future stem break-outs are likely to occur. This poor form, with limited options to manage the hedgerows down to a

lower height, means they are of quality category C2. Hedgerows H3 and H5 are still capable of being managed through height reduction, and so achieve quality category B2. The ownership of these hedgerows is unclear. If a decision over the retention/management of H2 and H4 is in the client's gift, their removal and replacement with new mixed native species hedgerow should be considered.

3.8. Hedgerows H1, H6, H8, H9, H10, H11, H12 and H13 form the remaining site outer boundaries and are of quality category B2. They have been well maintained by flailing or trimming. It appears that H9 and H12 might be replacement or coppiced hedgerow associated with the installation or management of utility cables which run above them. The taller sections of hedgerows H10 and H11 seem to have been retained at original height because they do not interfere with the lines.

4. Development Proposal

4.1. The proposal is for new residential development of 58 semi-detached and terrace dwellings, with a new vehicular access road from Cholstrey Road and a pumping station. The proposed site layout is shown on Proposed Site Plan Zeb1280-PL-015F.

5. Impact Assessment

5.1. Ten individual trees, two groups and one part-group of trees, and one section of hedgerow are proposed to be removed. These removals are summarised by quality category in the table below.

	Total	A - High quality trees whose retention is most desirable.	B - Moderate quality trees whose retention is desirable.	C - Low quality trees which could be retained but should not significantly constrain the proposal.	U - Very poor quality trees that should be removed unless they have high conservation value.
Trees	**10**	-	5	5	-
Groups	**3**	-	-	2 & 1 part group	-
Hedgerows	**1**	-	1 section for new access	-	-
Total	**14**	**-**	**6**	**8**	**-**

5.2. The location of the proposed new site access from Cholstrey Road will require the removal of an approximately 15-metre section of hedgerow H6 (B2). Hawthorn, elder and blackthorn group G3 (C1) can be successfully retained between the access road and Plot 58, but some of the smaller sucker shrubs would be removed and the group generally trimmed back and brought into a tighter form. These removals and pruning are acceptable from an arboricultural perspective.

5.3. The removal of cherry tree T1 (C1) for Plot 6 is acceptable because of its poor state of health and declining amenity value. The tree has extensive gum exudate over its bole and branches and wilted attached foliage tips. These symptoms indicate severe Spur Blight *(Monilinia laxa)* and/or Bacterial Canker of Cherry *(Pseudomonas syringas* pv. *morsprunorum) infections. The trees have p*oor foliar density and vigour, indicating the tree's health is being weakened by the disease(s).

5.4. Plots 10 and 11 require the removal of cherry T19 (B1); a loss of moderate significance for the site. The removal of contorted hazel T3 and wild cherry T4 (B1) are of lower impact because of their smaller size. Purple Norway maple T6 (C1) and orchard apple T7 (B1) can be retained within the garden. Although fruit trees T8 to T12 (C1) are shown as retained, they are small and unattractive trees which are likely to be removed by a new property owner and this would be of no consequence.

5.5. Hedgerow H7 (B2) is a mature hedgerow of Hawthorn, hazel, damson, elder, common ash, and English elm. The hedgerow stems located tightly along the boundary line, or further to the north, but the canopies overhang the site. The wider canopy within the garden of Plot 11 is predominantly of low blackthorn stems which have subsided out into the garden and rested on the ground. The removal of these and the trimming back of the canopies to provide clearance from the building of Plot 11 would have no significant impact on amenity or hedgerow longevity.

5.6. The removal of other fruit and holly trees T1 (C1), T2 (B1), T5 (C1), T17 (C1), T18 (B1) and the predominantly cherry suckers G1 and G2 (C1) will have no significant impact on amenity.

5.7. Crack willow T22 (U) is an off-site coppice-origin tree with cracked bark-included unions at its base and failed stems. Three stems towards the site have split basal unions and decay. Its canopy overhangs the proposed rear gardens of Plots 29 and 30. Although removal of the tree is not within the gift of the applicants or future property owners, the canopy over the rear gardens would be removed entirely up to the boundary line. This would effectively remove the risk of further stem failure into the site, and regrowth could be managed in the future in the same way.

5.8. There is no need for any further facilitation pruning. However, the maintained boundary hedges will need to be maintained in their existing pruning/flailing regime prior to and during construction. An approved management plan for the retained trees and hedgerows would secure their appropriate future maintenance within the new environment.

5.9. The existing bungalow West Winds is served by ample existing hard standing and working space outside of the RPAs of retained trees and hedgerows to allow demolition without negative impact on them.

5.10. No building foundations are proposed within the RPAs of retained trees or hedgerows. There is an incursion into the RPA of holly T16 (B1) by a Plot 5 car parking space and hard surfacing. The tree is an out-grown hedgerow tree. The hard surfacing could be installed using either a no-dig cellular confinement system or

hand excavation and root pruning. The former option would be more technically complex and might produce a less satisfactory finish. The latter option would have no more impact than the ploughing of fields which takes place near to hedgerows and hedgerow trees in fields and would produce a more satisfactory finish. Both options are feasible.

5.11. The site is gently sloping from the east down to the west. Aside from 5.10 above, no ground-level changes will be required within the RPAs of retained trees and hedgerows.

5.12. There appears to be ample scope for new below-ground service connections into the site, and systems within the site, to be installed outside of the RPAs of retained trees and hedgerows. There are existing gaps between the south-west and north-west boundary hedgerows. If new connections are needed to be made through hedgerow(s), these can be created and then replanted after installation, with no longer-term impact on amenity.

5.13. Hard landscaping of garden paths and garden sheds is proposed at the peripheries of the RPAs of English oak T21 (B1) and hedgerows H7, H9, H10, H11 and H12 (B2). These are very minor incursions which are easily offset elsewhere continuous with the RPAs. If carefully installed by hand as part of a hard landscaping phase following completion of main build activities, and following a pre-commencement site meeting, there would be no impact on tree or hedgerow health or longevity.

5.14. The proposed site layout plan indicatively shows new tree planting of over 100 trees. If the new trees are of carefully selected species/variety, are planted well and resources are allocated to ensure their successful establishment and maintenance, they will more than mitigate for the proposed tree removals. They will provide a net gain in tree canopy cover for the site.

5.15. The proposal is feasible from an arboricultural perspective, and if carefully implemented according to an approved arboricultural method statement there would be no or only a low potential negative impact on the retained trees. A combined draft tree retention and removal and tree protection plan is included in section 3.

6. Heads of terms for an Arboricultural Method Statement (AMS)

6.1. BS5837:2012 (Figure 1) recommends that detailed/technical design of tree protection and arboricultural methodologies should be resolved and finalised following on from the approval of the feasibility of a scheme by the Local Planning Authority.

6.2. Annex B and Table B.1 of BS5837:2012, an informative, advises that arboricultural method statement heads of terms are a sufficient level of information in order to deliver tree-related information into the planning system. The table also advises that a detailed arboricultural method statement might reasonably be required as a 'reserved matter' or planning condition.

6.3. In relation to the site, it is anticipated that arboricultural working methods are likely to be quite straightforward. A brief summary of the principles of tree protection on development sites is included in section 7. A draft, 'heads of terms' for an arboricultural method statement is set out below:

- Project arboriculturist – schedule of monitoring and supervision
- Pre-commencement site meeting
- Tree removals and facilitation pruning; hedgerow maintenance during construction and marketing phases
- Erection of tree protection barriers
- Demolition of bungalow
- Installation of new services - new connections and systems
- Main construction phase
- Removal of tree protection barriers
- Hard landscaping adjacent to tree and hedgerow RPAs - timing and methods of installation
- Final soft landscaping including tree planting and aftercare

7. Recommendations and Summary

7.1. The proposed development appears to be feasible from an arboricultural perspective, and retained trees can be adequately protected during construction activities to sustain their health and longevity.

7.2. An arboricultural method statement and finalised tree protection plan will need to be produced. Where the feasibility of a scheme has been agreed by the Local Planning Authority, this detail can be usually finalised and submitted at a later date by condition of planning consent.

Ian Monger *BSc (Hons.), MArborA,*
Senior arboriculturist

Tree No	Ht (m)	Species	Life Stage	RPA Radius (m)	RPA Area (m2)
T1	9	Cherry spp.	M	5.8	104
T2	5	Holly	EM	2.5	20
T3	3	Contorted hazel	M	2.5	20
T4	9	Wild cherry	SM	2.4	18
T5	3	Orchard apple	SM	1.7	9
T6	12	Purple Norway maple	EM	4.2	55
T7	9	Orchard apple	M	4.3	59
T8	4.5	Domestic plum	M	3.2	33
T9	3	Orchard apple	SM	2.2	15
T10	4.5	Domestic plum	Y	1	3
T11	4.5	Orchard apple	SM	1.5	7
T12	3	Orchard apple	SM	1.6	8
T13	10	Orchard apple	M	4.1	52
T14	5	Chusan palm	M	3.2	33
T15	9	Damson	M	3.1	31
T16	8	Holly	M	4.2	55
T17	4	Elder	EM	1.6	8
T18	5	Damson	M	2.4	18
T19	10	Cherry spp.	M	5.5	96
T20	6	Cherry spp.	SM	1.5	7
T21	12	English oak	M	8.2	209
T22	10	Crack willow	EM	5.2	84
G1	6.5	Holly, sycamore, wild cherry	SM	1.8	10
G2	7	Wild cherry	SM	1.3	5
G3	7	Elder, hawthorn, blackthorn	M	3.9	49
H1	1.5	English elm	Y	0.6	1
H2	8	Leyland cypress, hazel, rowan, elder	EM	4.5	65
H3	6	Hazel	M	4.8	72
H4	10	Leyland cypress, Lawson cypress	M	6.6	137
H5	9	Lawson cypress, Leyland cypress, hazel, sycamore, wild cherry, damson, Portugal laurel, Lonicera	EM	3.6	41
H6	3	English elm, elder,	EM	1.6	8
H7	6	Hawthorn, hazel, damson, elder, common ash, English elm	M	3.6	41
H8	2	common ash	SM	1.3	5
H9	2.5	Hawthorn, hazel, common ash, dogwood, blackthorn	EM	1.5	7
H10	5.5	Hawthorn, blackthorn	M	2.4	18
H11	6.5	Hawthorn, hazel, blackthorn, crab apple	M	3.3	35
H12	3	Hawthorn, blackthorn, elder	SM	1.3	5
H13	6	Hawthorn, blackthorn, elder, English elm	M	2.8	24

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
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- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N GRID NORTH

0 5 10 15 20 25 Meters

PROJECT TITLE
Land off Cholstrey Road, Ebnall, Leominster (C.3258)

DRAWING TITLE
Tree Survey & Constraints Plan

SCALE		DRAWING NUMBER			
1:500 @ A3		BHA_620_01			
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE	
SD	IM	-	-	22/08/2019	

LAYOUT USED WITHIN DRAWING **n/a**

CLIENT **CSA Environmental**

COORDINATE SYSTEM / DATUM **British National Grid / Newlyn Datum (AOD)**

Barton Hyett Associates
Arboricultural Consultants
In association with CSA environmental
Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre, Eckington, Pershore, Worcestershire, WR10 3DN

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CONSTRUCTION EXCLUSION ZONE - NO ENTRY

TREE PROTECTION FENCING

THIS FENCE MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED TREE PROTECTION PLANS AND ARBORICULTURAL METHOD STATEMENT FOR THIS DEVELOPMENT.

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER. CONTRAVENTION CAN RESULT IN BREACH OF PLANNING CONDITIONS AND/OR CRIMINAL PROSECUTION. TOWN AND COUNTRY PLANNING ACT 1990.

FOR ALL ENQUIRIES REGARDING TREES AT THIS DEVELOPMENT PLEASE CALL 01386 576161 OR EMAIL ENQUIRIES@BARTONHYETT.CO.UK

Barton Hyett Associates

KEY

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- Category B Tree - Moderate quality (Retention desirable)
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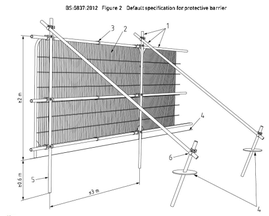
- Shrub mass/offsite tree/out of scope (OOS)
- Tree / Hedgerow / Group to be removed

Protection Measures

- Tree Protection Barrier - Figure 2 Specification
- Tree Protection Barrier - Figure 3 Specification

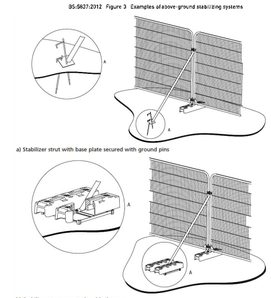
BS 5837:2012 Figure 2 Default specification for protective barrier



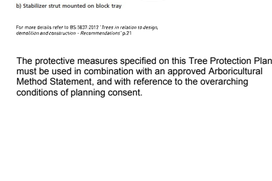
Key
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

For more details refer to BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*' p.20

BS 5837:2012 Figure 3 Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

For more details refer to BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*' p.21

The protective measures specified on this Tree Protection Plan must be used in combination with an approved Arboricultural Method Statement, and with reference to the overarching conditions of planning consent.

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N GRID NORTH

0 5 10 15 20 25 Meters

PROJECT TITLE
Land off Cholstrey Road, Ebnall, Leominster (C.3258)

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Tree Retention/Removal & Protection Plan

SCALE			DRAWING NUMBER	
1:500 @ A3			BHA_620_02	
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
SD	IM	-	-	25/09/2019

LAYOUT USED WITHIN DRAWING **n/a**

CLIENT **CSA Environmental**

COORDINATE SYSTEM / DATUM **British National Grid / Newlyn Datum (AOD)**

Barton Hyett Associates
Arboricultural Consultants
In association with CSA environmental
Tel: 01386 576161
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TREE SURVEY SCHEDULE

LAND OFF CHOLSTREY ROAD, EBNALL, LEOMINSTER

PROJECT NO: C.3258

SURVEYOR: IAN MONGER

CLIENT: CSA

SURVEY DATE: 13 August 2019

Barton Hyett
Arboricultural Consultants

INDIVIDUAL TREES

Ref	Species	Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. Canopy Height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T1	Cherry spp.	9	1	-	480	5.5-5.5-6-5.5	2.0	2.5	n/a	M	None	Slime flux exudate over bole and branches, and wilted attached foliage tips indicating severe Spur Blight *(Monilinia laxa)* and/ or Bacterial Canker of Cherry *(Pseudomonas syringas pv. morsprunorum)*. Poor foliar density and vigour.	Poor	Good	10+	C1	5.8	104
T2	Holly	5	1	-	210	2.5-2.5-2.2-3	1.0	2	W	EM	None	Crown lift wounds. Clear stem to 2m.	Good	Good	40	B1	2.5	20
T3	Contorted hazel	3	7	#	210	1.5-1-2-2	0.5	1	n/a	M	None	Basal shoots removed.	Good	Good	40	B1	2.5	20
T4	Wild cherry	9	1	-	200	4-4.5-4-4	2.0	3	W	SM	None	Good open-grown form.	Good	Good	40	B1	2.4	18
T5	Orchard apple	3	1	#	140	2-1.5-2-2	1.0	1	S	SM	None	Pruned tree.	Good	Good	20	C1	1.7	9
T6	Purple Norway maple	12	2	-	350	4-3.5-4-4	2.5	3.5	W	EM	None	Two stems from near ground with bark-included union. Exposed surface roots.	Good	Poor	20	C1	4.2	55
T7	Orchard apple	9	4	-	360	5.5-3-3-5.5	2.0	2	N	M	None	Crown lift wounds. Vigour suppressed by hedgerow to southeast.	Fair	Good	40	B1	4.3	59
T8	Domestic plum	5	1	-	270	1-1.5-1.5-4	2.5	3	W	M	None	Torn branch wounds and stubs. Large stem removal wounds. Disfigured form.	Fair	Poor	<10	C1	3.2	33
T9	Orchard apple	3	4	-	180	1-0.5-2-2	1.5	1.5	W	SM	None	Pollarded.	Good	Fair	20	C1	2.2	15
T10	Domestic plum	5	1	-	80	0.5-1-1-1	1.5	2	S	Y	None	Poor form.	Good	Fair	20	C1	1.0	3
T11	Orchard apple	5	2	-	120	1-0.5-1-1.5	2.0	2	W	SM	None	Pruned form.	Good	Fair	20	C1	1.5	7
T12	Orchard apple	3	2	-	130	0.5-2.5-2.5-0.5	0.0	0	S	SM	None	Stem has fallen to south-east.	Good	Fair	20	C1	1.6	8
T13	Orchard apple	10	1	-	340	5-4-3-5.5	2.0	2.5	S	M	None	Previously pruned. Suppressed to south-east.	Good	Good	40	B1	4.1	52
T14	Chusan palm	5.0	1	-	270	1.5-1.5-1.5-1.5	1.2	3	n/a	M	None	Good condition.	Good	Good	20	B1	3.2	33

TREE SURVEY SCHEDULE

LAND OFF CHOLSTREY ROAD, EBNALL, LEOMINSTER

PROJECT NO: C.3258

SURVEYOR: IAN MONGER

CLIENT: CSA

SURVEY DATE: 13 August 2019

Barton Hyett
Arboricultural Consultants

Ref	Species	Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. Canopy Height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T15	Damson	9.0	4	#	260	4.5-4-4-4	2.0	1.5	n/a	M	None	Off-site tree with canopy hanging over site.	Good	Good	20	B1	3.1	31
T16	Holly	8.0	1	#	350	2.5-2-2.5-2	3.0	1.5	n/a	M	None	Upright form, with one main stem and multiple smaller basal shoots.	Good	Good	40	B1	4.2	55
T17	Elder	4.0	5	-	130	1.5-2.5-2.5-1.5	1.5	0	E	EM	None	Multi-stemmed fence line shrub.	Fair	Fair	20	C1	1.6	8
T18	Damson	5.0	1	-	200	2.5-2.5-2.5-3	1.5	2.5	W	M	None	Decayed basal stem stub within bole. Large crown lift wounds. Otherwise, good form.	Good	Fair	20	B1	2.4	18
T19	Cherry spp.	10.0	2	-	460	6-8-7-7.5	1.5	2	W	M	None	Exposed surface roots. Two stems from 1m with bark-included union.	Good	Good	40	B1	5.5	96
T20	Cherry spp.	6.0	1	-	120	2.5-2-3-3	2.0	2	n/a	SM	None	No significant defects.	Good	Good	40	C1	1.5	7
T21	English oak	12.0	1	#	680	7.5-7.5-7-8	4.0	4	W	M	None	Off-site tree. Not able to inspect stem base. Good form.	Good	Good	40	B1	8.2	209
T22	Crack willow	10.0	5	#	430	7-6-8-8	2.5	1.5	W	EM	None	Off-site coppice-origin tree with cracked bark-included unions at base and failed stems. Three stems towards site have split basal unions and decay. Stem removal wounds on site side.	Good	Poor	<10	U	5.2	84

TREE SURVEY SCHEDULE

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GROUPS OF TREES

Ref	Species	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
G1	Holly, sycamore, wild cherry	4.5-6.5	3	-	150	2.5	0.5	SM	None	Holly is multi-stemmed garden shrub. Sycamore and wild cherry are natural regeneration.	Good	Fair	20	C1	1.8
G2	Wild cherry	6-7	7	-	100	3	1.0	SM	None	Group of sucker stems, with further out of scope stems.	Good	Good	20	C1	1.3
G3	Elder, hawthorn, blackthorn	3.5-7	6	-	330	3	0.0	M	None	Remnant hedgerow and fence line sucker group. One each mature elder, hawthorn and blackthorn, with blackthorn sucker shrubs along fence line on east leg. Hawthorn has historically laid lower stems and has been previously flailed at 1.5m	Good	Fair	20	C1	3.9

TREE SURVEY SCHEDULE

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HEDGES

Ref	Species	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. Canopy Height (m)	Life Stage	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H1	English elm	1.5	1	50	0.0	Y	Maintained at 1.5m on garden frontage and 2m on short paddock section.	Good	Good	20	B2	0.6
H2	Leyland cypress, hazel, rowan, elder	8.0	6	380	1.0	EM	Planted hedgerow. Historically maintained at about 1.2m. Range of cypress regrowth rates, with one central tree having reached 10 metres, and others suppressed to 3 metres below T6. Future break-outs likely. Stem diam. is maximum.	Good	Fair	20	C2	4.5
H3	Hazel	6.0	6	400	0.0	M	Forming contiguous hedgerow with neighbouring hedgerows. Stems previously laid at 1.5m to fill gaps.	Good	Good	40	B2	4.8
H4	Leyland cypress, Lawson cypress	10.0	7	550	1.5	M	Planted hedgerow. Historically maintained at about 1.2m. Range of cypress regrowth rates, with one tree having reached 12 metres, and others suppressed to 3 metres below T6. Future break-outs likely. Stem diam. is maximum.	Good	Fair	20	C2	6.6
H5	Lawson cypress, Leyland cypress, hazel, sycamore, wild cherry, damson, Portugal laurel, Lonicera	9.0	7	300	0.0	EM	Planted hedgerow with sycamore and cherry natural regeneration. Max. height 10m. Ownership boundary unclear. Cypresses planted apparently on site side and historically managed to 1 metre with regrowth. Whole hedgerow also previously managed at 2m. Could be re-managed to lower height.	Good	Fair	20	B2	3.6
H6	English elm, elder,	3.0	3	130	1	EM	Maintained hedgerow of elm, with occasional natural regeneration. Semi-mature English elm next to T16 where unflailed.	Good	Good	40	B2	1.6
H7	Hawthorn, hazel, damson, elder, common ash, English elm	6.0	6	300	2	M	Mature unmaintained hedgerow with clear stems and browse line to 1.5m on paddock side. Some damson canopy overhangs into house rear garden. Ivy on most stems. Browsing damage to some stems. Only one ash of young age.	Good	Good	40	B2	3.6
H8	Dogwood, hazel, blackthorn, wild privet, hawthorn, common ash	2.0	2	100	0	SM	Maintained hedgerow of predominantly blackthorn, dogwood and privet.	Good	Good	40	B2	1.3
H9	Hawthorn, hazel, common ash, dogwood, blackthorn	2.5	2	120	0	EM	Maintained hedgerow of predominantly hazel, hawthorn and dogwood. Former hedgerow presumably replaced for utility cable, leaving only H11 section.	Good	Good	40	B2	1.5

TREE SURVEY SCHEDULE

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Ref	Species	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. Canopy Height (m)	Life Stage	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H10	Hawthorn, blackthorn	5.5	5	200	0	M	Remnant hedgerow section maintained by flailing to 3m on paddock side.	Good	Good	20	B2	2.4
H11	Hawthorn, hazel, blackthorn, crab apple	6.5	6	280	0	M	Mature hedgerow of predominantly hawthorn. Maintained by flailing on paddock side to 3m. One crab apple in hedgerow.	Good	Good	20	B2	3.3
H12	Hawthorn, blackthorn, elder	3.0	3	100	0	SM	Maintained hedgerow of predominantly hawthorn and blackthorn. One apparent bramble and scrub filled gap towards north end. Former hedgerow presumably coppice or replaced for power lines above. Unmaintained blackthorn around electrify pole at south end.	Good	Good	40	B2	1.3
H13	Hawthorn, blackthorn, elder, English elm	6.0	5	230	0	M	Mature hedgerow with suppressed section below T21. Flailed on paddock side to 3.5m. Two elms at south end have Dutch Elm Disease dieback.	Good	Good	20	B2	2.8

		
PHOTO 1: View from the entrance to West Winds looking north-east. Cherry T1 is within the lawn to the left, with H5 to the right of the driveway.	PHOTO 2: View looking north along Cholstrey Road. H1 and G2 are to the right of the paddock gate, with T16, H6 and G3 visible to the left of it.	PHOTO 3: View in the ear garden of West Winds looking south. The Leyland Cypress conifers are within H4.
		
PHOTO 4: View from within the paddock looking west towards T16 (left) and hedgerow H6 through which the proposed new access will pass.	PHOTO 5: View from within the paddock looking east towards cherry tree T19, with mature hedgerow H7 running behind it.	PHOTO 6: View from within the field looking east at English oak T21, with poor quality crack willow T22 to its right and hedgerow H13 running along the boundary.

TREE SURVEY METHODOLOGY

- The tree survey was carried out with reference to the methodology set out in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- Trees were surveyed individually or as groups where it was considered that they had grown together to form cohesive arboricultural features either aerodynamically (trees that provide companion shelter), visually (eg avenues or screens) or culturally (including for biodiversity). However, where it was considered that there was an arboricultural need to differentiate between attributes trees within groups/woodlands were also surveyed as individuals
- The full tree survey findings are recorded in the following tree survey schedule.
- Within the tree survey schedule, each surveyed TREE (T), GROUP (G), HEDGEROW (H), WOODLAND (W) or SHRUB MASS on or adjacent to the site is given a reference number which refers to its position on the tree survey and constraints plan.
- TREE SPECIES are listed by common name.

The DIMENSIONS taken are:

- STEM-No. Indicates the number of main stems (i.e. whether the trunk divides at or below 1.5m; (Used in the calculation of RPA.) "m-s" = Multi-stemmed.
- STEM DIAMETER (in millimetres), obtained from the girth measured at approx.1.5m. For trees with 2 to 5 sub-stems, a notional figure is derived from the sum of their cross-sectional areas. For multi-stemmed trees the notional diameter may be estimated on the basis of the average stem size x the number of stems. (A notional diameter may be estimated where measurement is not possible.)
- HEIGHT, are measured in metres. They are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- The CROWN SPREAD are taken at the four cardinal points to derive an accurate representation of the tree crown. They are recorded up to the nearest half metre for dimensions up to 10m and to up the nearest whole metre for dimensions over 10m.
- CROWN CLEARANCES are expressed both as existing height above ground level of first significant branch along with its direction of growth (eg 2.5m-N), and also in terms of the overall canopy. Measurements are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- ESTIMATES. Where any measurement has had to be estimated, due to inaccessibility for example, this is indicated by a "#" suffix to the measurement as shown in the tree survey schedule.

LIFE STAGE is defined as follows:

Y Young: normally stake dependent, establishing trees. Should be growing fast, usually primarily increasing in height more than spread, but as yet making limited impact upon the landscape.

SM Semi-mature: Established young trees, normally of good vigour and still increasing in height, but beginning to spread laterally. Beginning to make an impact upon the local landscape & environment. Semi-Mature (still capable of being transplanted without preparation, up to 30cm girth and not yet sexually mature).

EM Early-mature: Not yet having reached 75% of expected mature size. Established young trees, normally of good vigour and still increasing in height, but beginning to spread laterally. Beginning to make an impact upon the local landscape & environment.

M Mature: Well-established trees, still growing with some vigour, but tending to fill out and increase spread. Bark may be beginning to crack & fissure. In the middle half of their safe, useful life expectancies.

LM Late-Mature: In full maturity but possibly beyond mature and in a state of natural decline). Still retaining some vigour but any growth is slowing.

A Ancient: A tree that has passed beyond maturity and is old./aged compared with other trees of the same species. Typically having a very wide trunk and a small canopy.

PHYSIOLOGICAL CONDITION (HEALTH & VITALITY):

Essentially a snapshot of the general health of the tree based upon its general appearance, its apparent vigour and the presence or absence of symptoms associated with poor health, physiological stress etc. (Fungal infections may be recorded here but decay giving rise to structural weakness would be recorded under 'Structural Condition' – see next parameter):

Good: No significant health issues.
Fair: indications of slight stress or minor disease (e.g. the presence of minor dieback/deadwood or of epicormic shoot growth)
Poor: Significant stress or disease noted; larger areas of dieback than above
Dead: (or Moribund)

STRUCTURAL CONDITION:

Defects affecting the structural stability of the tree, including decay, significant dead wood, root-plate instability or significant damage to structural roots, weak forks (e.g. those where bark is included between the members) etc. Classified as:

Good: No obvious structural defects: basically sound
Fair: Minor, potential or incipient defects
Poor: Significant defect(s) likely to lead to actual failure in the medium to long-term
Dead: (or Moribund)

REMAINING USEFUL LIFE EXPECTANCY:

An estimate of the length of time in years that a tree might be expected to continue to make a useful contribution to the locality at an acceptable level of risk (based on an assumption of continued routine maintenance)

- less than 10 years
- 10+ years
- 20+ years
- 40+ years

SPECIAL IMPORTANCE:

Trees that are particularly notable as high value trees such as ancient trees/woodland, or veteran trees. Such trees may be regarded as the principal arboricultural features of a site, and pose a significant constraint to potential development.

An ancient tree is one that has passed beyond maturity and is very old compared with other trees of the same species. Very few trees reach the ancient life-stage. Veteran trees are often very old, but not necessarily so; they may be regarded as 'survivors' that have developed some of the characteristic features of an ancient tree but have not necessarily lived as long. All ancient trees are veterans but not all veteran trees are ancient.

QUALITY CATEGORY:

Trees are classed as category U, A, B or C, based on criteria given in BS5837:2012; summary definitions as follows (see BS5837 for further details). Categories A, B and C are further characterised by the use of sub-categories, which attempt to identify what aspect of the tree is the main source of its perceived value:

(1) arboricultural qualities

(2) landscape qualities, and

(3) cultural, historic or ecological/conservation qualities.

Examples of these qualities for each of the three categories are given below, although these are indicative only.

Note: This is NOT a health and safety classification; the classification does not take into account any requirement for remedial tree care or ongoing maintenance apart from that which may affect the trees' general suitability for retention.

CATEGORY U: UNSUITABLE:

Trees likely to prove to be unsuitable for retention for longer than 10 years should any significant increase in site usage arise as a result of development.

E.g. dead or moribund trees; those at risk of collapse or in terminal decline; trees that will be left unstable by other essential works such as the removal of nearby category U trees; trees infected by pathogens that could materially affect other trees; low quality trees that are suppressing better specimens

(Category U trees may have conservation values that it might be desirable to preserve.

It may also include trees that should be removed irrespective of any development proposals.)

CATEGORY A: HIGH QUALITY:

Trees or groups whose retention should be given a particularly high priority within the design process. Normally with an expected useful life expectancy of at least 40 years.

A1: Notably fine specimens; rare or unusual specimens; essential component trees within groups, semi-formal or formal plantings (e.g. dominant trees within an avenue etc.)

A2: Trees, groups or woodlands of particular visual importance as landscape features.

A3: Trees, groups or woodlands of particular significance by virtue of their conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture.)

CATEGORY B: MODERATE QUALITY:

Trees or groups of some importance with a likely useful life expectancy in excess of 20 years. Their retention would be highly desirable; selective removal of certain individuals may be acceptable, but only after full consideration of all alternative courses of action.

B1: Fair quality but not exceptional; good specimens showing some impairment (e.g. remediable defects, minor storm damage or poor past management.)

B2: Acceptable trees situated such as to have little visual impact within the wider locality. Also numbers of trees, perhaps in groups or woodlands, whose value as landscape features is greater collectively than would warrant as individuals (such that the selective removal of an individual would not impact greatly upon the trees' overall, collective value).

B3: Trees, groups or woodlands with clearly identifiable conservation or other cultural benefits.

CATEGORY C: MINOR VALUE:

Trees or groups of rather low quality, although potentially capable of retention for at least approx. 10 years. Also small trees with stems below 15cm diameter.

Potentially retainable, but not of sufficient value to be regarded as a significant planning constraint.

C1: Unremarkable trees of very limited merit or of significantly impaired condition.

C2: Trees offering only low or short-term landscape benefits; also secondary specimens within groups or woodlands whose loss would not significantly diminish their landscape value.

C3: Trees with extremely limited conservation or other cultural benefit.

ROOT PROTECTION AREA (RPA):

These are normally represented as a circle centred on the base of each tree stem with a radius of 12 times stem diameter measured at 1.5m above ground level, but the shape of the RPA may be altered where site conditions dictate that there are sound reasons to do so.

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THE IMPORTANCE OF TREES

Wider benefits:

There is a growing body of evidence that trees bring a wide range of benefits to the places people live.

Some Economic benefits of trees include:

- Trees can increase property values
- As trees grow larger, the lift they give to property values grows proportionately
- They can improve the environmental performance of buildings by reducing heating and cooling costs, thereby cutting bills
- Mature landscapes with trees can be worth more as development sites
- Trees create a positive perception of a place for potential property buyers
- Urban trees improve the health of local populations, reducing healthcare costs

Some Social benefits of trees include:

- Trees help create a sense of place and local identity
- They benefit communities by increasing pride in the local area
- They can create focal points and landmarks
- They have a positive impact on people's physical and mental health
- They can have a positive impact on crime reduction

Some Environmental benefits of trees include:

- Urban trees reduce the 'urban heat island effect' of localised temperature extremes
- They provide shade, making streets and buildings cooler in summer
- They help remove dust and particulates from the air
- They help to reduce traffic noise by absorbing and deflecting sound
- They help to reduce wind speeds
- By providing food and shelter for wildlife they help increase biodiversity
- They can reduce the effects of flash flooding by slowing the rate at which rainfall reaches the ground
- They can help remediate contaminated soil

On new development sites:

Trees bring many benefits to new development. Where retained successfully they can form important and sustainable elements of green infrastructure, contribute to urban cooling and reduce energy demands in buildings. Their importance is acknowledged in relation to adaptation to the effects of climate change. Other benefits brought by trees include:

- increasing property values;
- visual amenity
- softening, complementing and adding maturity to built form
- displaying seasonal change
- increasing wildlife opportunities in built-up areas
- contributing to screening and shade
- reducing wind speed and turbulence

NATIONAL PLANNING POLICY

The National Planning Policy Framework 2019 (NPPF paragraph 175) states that:

‘development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons, and a suitable compensation strategy exists’.

In this respect the following definitions apply:

‘Ancient woodland: An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS)’, and an
‘Ancient or veteran tree: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.’

Note: Further information from the National Planning Policy Guidance Suite and Standing Advice is provided in the design guidance section.

STATUTORY CONTROLS

Statutory tree protection

Works to trees which are covered by Tree Preservation Orders (TPOs) or are within a Conservation Area (CA) require permission or consent from the Local Planning Authority. Where information is available on any Statutory designations such as this they are identified within the summary table in Section 1 and on the Tree Survey and Constraints Plan at Section 2.

Notwithstanding specific exceptions and in general terms, a TPO prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of protected trees or woodlands without the prior written consent of the LPA.

Penalties for contravention of a TPO tend to reflect the extent of damage caused but can, in the event of a tree being destroyed, result in a fine of up to £20,000 if convicted in a Magistrates' Court, or an unlimited fine is the matter is determined by the Crown Court.

Similarly, and again notwithstanding specific exceptions, it is an offence to carry out any works to a tree in a Conservation Area with a trunk diameter greater than 75mm diameter at 1.5 height without having first provided the LPA with 6 weeks written notification of intent to carry out the works.

On many non-residential sites (excluding specific exemptions) there is also a statutory restriction relating to tree felling that relates to quantities of timber that can be removed within set time periods. In basic terms, it is an offence to remove more than 5 cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with the statutory controls outlined.

Statutory Wildlife Protection

Although preliminary visual checks from ground level of likely wildlife habitats are made at the time of surveying, detailed ecological assessments of wildlife habitats are not made by the arboriculturist and fall outside of the scope for this report.

Trees which contain holes, splits, cracks and cavities could potentially provide a habitat for protected species such as bats in addition to birds and small mammals. It is advised that in some instances specialist ecological advice may be required. This may result in tree works being carried out following a detailed climbing inspection to the tree to ensure that protected species or their nests/roosts are not disturbed. If any are found, the site manager, site owner or consulting arboriculturist should be informed and appropriate action taken as recommended by the appointed Ecologist or Natural England.

It is advised that tree/hedgerow works are carried out with the understanding that birds will generally nest in trees, hedges and shrubs between March and August. This time period only provides an indication of likely nesting times and as such diligence is required when undertaking tree works at all times.

Irrespective of the time of year, and other than any actions approved under General Licence, it is an offence to intentionally kill, injure or take any wild bird or to intentionally take, damage or destroy the nest or eggs of any wild bird. Ideally, tree operations should be avoided during the likely bird nesting period. However, any tree works should always only be carried out following a preliminary visual check of the vegetation.

For information, the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010, form the basis of the statutory legislation for flora and fauna in England and Wales. A different legislative framework applies in Scotland and Northern Ireland.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with any relevant statutory controls, outlined above.

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HOW TREE DAMAGE CAN OCCUR

Above the ground

Damage can occur as a result of knocks and scuffs, breakages of branches and/or tree trunks. This is often but not always associated with machine operations, groundworks excavations, teleporters, high sided vehicles and crane use. Other forms of above ground damage include fixings to trunk and unauthorised cutting back of branches. Wounds will harm a tree's health and shorten its life by letting in disease-causing organisms.

Below the ground

It is often not appreciated that the majority of most tree roots are generally located within the top 600mm of the ground. On this basis it needs to be understood that damage to roots can occur in three ways:

- Root severance can occur as a result, for example, of soil stripping during site clearance or excavations.
- Root dieback and death can result from compaction of the soil. Compaction can occur as a result of vehicle weight, weight of stored materials or increased pedestrian access. Compaction crushes out soil pore space and prevents tree respiration from occurring (respiration requires gas exchange between the ground and the atmosphere). Compacted soil is denser and therefore inhibits/prevents any further new root growth.
- Pollution of the soil with chemicals such as oil or cement washings can destroy the soil environment, making it inhospitable for the tree cause causing it stress.

The effects of these impacts can be disfiguring to a tree's appearance and also weaken a tree making it more liable to attack by pest and diseases. In addition, root damage or death results in corresponding decline above the ground with dieback occurring within the tree crown.

The effects of damage to trees generally take some time to become fully apparent. In many cases, damaged trees decline slowly after the completion of a new development, until they eventually need to be removed due to ill health.

Tree protection barriers and load distributing 'no-dig' paths are specified in order to prevent soil compaction from taking place.

GENERAL SITE RULES FOR TREE PROTECTION

Do not independently carry out any activity that is at odds with the site scheme of tree protection. This is contained within an approved Arboricultural Method Statement (AMS) and accompanying Tree Protection Plan.

In simple terms: do not carry out any work within any Construction Exclusion Zone (CEZ) without prior liaison with the Project Arboriculturist and written authorisation from the Local Planning Authority.

Within the CEZ:

- No mixing of cement
- No soil/turf stripping, raising/lowering of ground levels (unless advised), deposit or excavation of soil or rubble
- No excavations for services or installation of services
- No storage of materials, machinery fuel, chemicals or other materials of any other description
- No parking/use of tracked or wheeled machinery
- No siting of temporary structures including hard standing areas, portaloos, site huts
- No lighting of fires or disposal of liquids
- Fires on site should be avoided if possible. Where they are unavoidable, they must not be lit in a position where heat could damage foliage or branches. Fires must be a minimum of 20m from the trunk of any retained tree or the centre line of any hedgerow to be retained
- No signs, cables, fixtures or fittings of any other description shall be attached to any part of a retained tree.