

Arboricultural Impact Assessment

Land at

Chirk Court Nursing Home
Maes Y Waun
Chirk

Ref:

AIA/CCC/09/16

Date:

9th September 2016

Commissioned by:

Mr A Evans
On behalf of
Pennaf Housing Group

Prepared by

S. Shields

Arboricultural Impact Assessment

Land at

Chirk Court Nursing Home

Maes Y Waun

Chirk

Wrexham

This Arboricultural Impact Assessment has been prepared in accordance with the protocols, standards and procedures set out in BS 5837: 2012 'Trees in relation to design, demolition and construction'.

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Date	Revision	
9 th September 2016	Original	

Instruction

- 1.1 Shields Arboricultural Consultancy received instructions from Mr A. Evans on behalf of Pennaf Housing Group to prepare an Arboricultural Impact Assessment in respect of a hedgerow at the above site.
- 1.2 Permission is being sought to undertake a height reduction of a hedgerow protected by a planning condition.

Scope & Limitations

- 2.1 The purpose of the report is to assess the impact that would arise from works to a hedgerow on the site.
- 2.2 The report is prepared in accordance with the recommendations of the British Standard Document BS 5837: 2012 'Trees in Relation to Construction'.
- 2.3 This report is not an ecological assessment and does not identify habitats or constitute a protected species survey.

Statutory Controls & Obligations

- 3.1 Forestry Act; the felling of trees is controlled by the Forestry Act, which requires that a felling licence is obtained prior to cutting down any trees. The Forestry Act does not apply to the felling of trees growing within an orchard, private garden, churchyard or public open space. The Forestry Commission has the responsibility for enforcing the Forestry Act.
- 3.2 Tree Preservation Orders & Conservation Areas; Local Authorities have specific powers under the Town & Country Planning Act 1990 as amended, to protect trees through the use of Tree Preservation Orders. Where trees are protected under such orders it is a criminal offence (subject to any exemptions for which provision may be made by the act or order) to undertake, cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of trees except with the consent of the local planning authority. Similar controls apply to all trees growing within a designated Conservation Area.
- 3.3 Bats, wild birds and other protected species; The Wildlife & Countryside Act & the Conservation (Natural Habitats & C.) Regulations make it an offence to disturb or destroy bats and bat roosts and wild birds and their nests. Other species of plant and animal are also protected. These creatures often inhabit trees and sufficient care must be taken to ensure they are not affected during forestry and arboricultural works.

Site description

- 4.1 Chirk Court Nursing Home is situated within the town of Chirk, Wrexham, to the east of the main road through the town. The site has recently been redeveloped to modernise the facilities and provide additional parking. The main building on the site is set within its own private grounds which support a number of mature trees. A hedgerow

runs along the west boundary of the site adjacent to the main road running through the town.

- 4.2 The site is level and at an elevation of 100m AOD and is not exposed.

Soils

- 4.3 Soils at the appeared to be free draining, cultivated brown earths. Soils appeared to be of reasonable depth and there is no indication of any significant impediments to rooting.

*NB. This soil assessment is undertaken in situ using visual and manual techniques and is **only** for the purpose of establishing the influence of site soils on tree growth. The assessment **must not** be relied upon to inform any engineering decisions.*

Development Proposal

- 5.1 It is proposed to reduce the height of the hedgerow on the west boundary of the site.

Tree Survey Methodology

- 6.1 All trees within and adjacent to the site have been assessed where they are within 15 m of any area that may be disturbed as a result of the proposed development and have a stem diameter over 75mm at 1.5 metres. Measurements have been taken in accordance with the procedures and protocols set out in BS 5837: 2012 and the Forest Mensuration Handbook. Height measurements are approximate unless otherwise stated. Trees have been assessed as individuals, groups or woodlands as appropriate. Where access to trees has been restricted, either as a result of their situation on private land or where vegetation or ground conditions are unfavourable, an estimation of trunk diameter has been made. This entails using a set of callipers to approximate the measurement. Estimates are rounded up to provide a margin. This technique has only been used where there is a sufficient buffer between the RPAs and any area disturbed by development. Where trees are in woodlands or groups only the outside edge trees are assessed unless there are larger trees with RPAs or crowns that would overlap the edge trees.
- 6.2 BS 5837: 2012 provides the framework through which tree can be categorised in terms of their health, amenity value and long-term viability for retention on a development site. There are four categories, A,B,C & U.

Category A: Trees of high quality and value in such a condition as to be able to make a substantial contribution (a minimum of 40 years)

1 Trees that are particularly good examples of their species, or essential components of groups or formal arboricultural features.

2 Trees, groups or woodlands that provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance.

3 Trees, groups or woodlands of significant conservation, historical, commemorative or other value.

Category B: Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)

1 Trees that might be included in a higher category but are downgraded because of impaired condition.

2 Trees present in numbers, usually as groups of woodlands that form distinctive landscape features.

3 Trees with clearly identifiable conservation or other cultural benefits.

Category C: Trees of low quality and value currently in adequate condition to remain until new planting could be established. Trees in this category would not usually be retained if they would pose a significant constraint to development.

Category U: Trees in such a condition that their existing value would be lost within 10 years and which should, in the current context be removed for arboricultural reasons.

The most significant or valuable trees are placed in the categories, A & B. Site design should make provision to retain trees in these categories and most Local Planning Authorities will insist upon this (or in exceptional circumstances will require that significant compensation planting is incorporated into the design), whilst trees that should not be a constraint to development are recorded with a C category. Trees categorised as U are in a poor condition and should be removed prior to the commencement of work.

6.3 Where trees are to be retained, it is necessary to ensure that they are suitably protected to avoid damage during the construction phase of the development. It is also important to consider any long term implications, such as issues with shading or leaf litter that may arise as a result of tree retention.

6.4 To ensure that trees are not adversely affected by the construction works it is necessary to:

- a. The avoidance of physical damage to the aerial parts of the trees (i.e. Impact and other damage to trunk and branches)
- b. The avoidance of damage to retained trees as a result of the severance or other physical damage to their roots
- c. Preserve of the character of the soil, through the avoidance of any activity that would cause it to become compacted or otherwise disturbed or disrupted, and to avoid contamination by potentially harmful substances
- d. To ensure free gaseous exchange is permitted between the upper layers of soil and the atmosphere

- e. To ensure adequate (but not excessive) water supply to the soil and hence to tree roots

This would normally be achieved by establishing an area, known as a construction exclusion zone (CEZ) around each tree. The CEZ is derived from the root protection area (RPA) and the crown spread of the tree. The RPA represents the area occupied by the tree's root system and is calculated for each tree based on its stem diameter and the ground conditions present taking account of and any impediment to rooting. The RPA should represent the most probable position of the tree's root system.

The CEZ must be considered sacrosanct and be maintained completely undisturbed. No construction should take place within this area and it should not be used for storage of materials or fuels. Access for vehicles machinery or personnel is prohibited and to ensure that it is not damaged by construction activity it must be suitably protected during the construction phase, using robust fencing or alternative ground protection methods, to prevent disturbance and damage occurring.

- 6.5 In addition to the implications that a new development may have for existing trees it is also important to assess any long term issues or concerns that may arise as a result of retaining trees close to a new dwelling or structure. This can include problems associated with leaf litter and other debris that may fall from trees, the potential that a tree has to cause damage to a structure in the future, any on-going maintenance requirements that may arise and the level of shade that the tree may cast, it is particularly important to consider the affects of shading where trees are to the south of houses and gardens. Trees can also cause feelings of apprehension to the occupiers of nearby buildings and can have an over bearing impact on a property if adequate space is not provided.
- 6.6 The report assesses all trees with regard to their size, position and natural characteristics, and taking into account of their future growth makes provides recommendations as to their long term suitability for retention.

Arboricultural Assessment

- 7.1 Full details of the tree surveyed are provided in appendix A. and their relative positions, crown spreads, root protection areas are indicated on the attached plans.
- 7.2 No checks have been undertaken to establish the status of the trees with regards to Tree Preservation Orders or Conservation Areas, however all the trees will be subject to the Forestry Act (see section 3.1) and all hedges subject to the Hedgerow regulations (see section 3.3). No trees or hedges should be felled, lopped, topped or in otherwise removed or damaged without prior permission from the relevant authority.

- 7.3 The survey is concerned with the hedgerow along the west boundary of the site:

Category	Quantity
Category A: Trees of high quality and value in such a condition as to be able to make a substantial contribution (a minimum of 40 years)	0
Category B: Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)	1
Category C: Trees of low quality and value currently in adequate condition to remain until new planting could be established. Trees in this category would not usually be retained if they would pose a significant constraint to development.	0
Category U: Trees in such a condition that their existing value would be lost within 10 years and which should, in the current context be removed for arboricultural reasons.	0

Arboricultural merits and the significance of the trees in the landscape

- 7.4 The site is characterised by the mature trees and hedgerows set within and around the boundaries of the grounds of the home. The trees and hedgerows are important features in the local landscape and provide an element of screening for the site.

Arboricultural implications of the proposed work

- 7.5 The hedgerow, H1 is a relatively young, urban hedgerow comprised predominantly of hawthorn with a small amount of sycamore and holly. It has been managed as a hedgerow with periodic cutting to heights of between 1.1 & 1.5 metres, measured from the inside (east) of the hedge. There are no significant plant species present in the hedgerow and it has only moderate value in terms of conservation and wildlife due to lack of species diversity and lack of connections to other hedges or areas of habitat. It is moderately important in terms of landscape value as it provides a soft edge to the front of the and helps to visually break up the lines of the building when viewed from outside the site.
- 7.6 The proposal to reduce the height of the hedge to 1.1 metres will have only minimal impact on its effectiveness as a screen, as it will still be above the sight lines of most road and pavement users and there are no direct views onto the site from land opposite. The new building is also effectively part screened from external views by the presence of a number of trees, including a large beech and large horse chestnut situated in land between the building and the west boundary.

Arboricultural Operations

- 8.1 If tree removal or pruning will be required, subject to a grant of planning permission, to implement this development the work should be undertaken by a suitably qualified person, holding public liability insurance for the sum of £5,000,000. All operators must hold relevant

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- NPTC certificates. A site specific risk assessment must be prepared and operators must work to a health and safety method statement.
- 8.2 The contractor undertaking the work is responsible for any loss or damage arising as a result of the operations and agrees to indemnify the owner against such occurrences.
- 8.3 All tree protection measure specified in the following section and shown on the accompanying TPP are to be fully installed prior to the commencement of the arboricultural works. Where access is required to the trees, then suitable ground protection must be used in lieu of the tree protection fences.
- 8.4 The contractor undertaking the work is required to ensure that an emergency spill kit, suitable for use with all fuels, oils and chemicals brought on to site is available during all operations.

Conclusion

- 9.1 The proposed reduction of the hedgerow to a height of 1.1 metres will have very little impact on the local landscape, habitat value of the site and will not be detrimental to public amenity. The proposals are within the norms of routine maintenance for a hedgerow of this type and will not be detrimental to its health or condition.

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9th September 2016

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Arboricultural Assessment

Ref. No.	Species	Top Height	Stem Dia mm	N	E	S	W	CC	Age	Rem Cont.	Cat.	RPA m ²	Notes	AIA
H1	Hawthorn (<i>Crataegus monogyna</i>)	2.5						0	M	20+	B2	N/a	Condition: Good Notes: Relatively young, urban hedgerow comprised predominantly of hawthorn, running along the west boundary of the site adjacent to the main road. H1 has been managed at a hedgerow and has been periodically cut to heights of between 1.5 & 2 metres. There are no significant plant species present in the hedgerow and it has only moderate value in terms of conservation and wildlife due to lack of species diversity and lack of connections to other hedges or areas of habitat.	Moderately important in terms of landscape value as it provides a soft edge to the front of the site helping to break up the line of the new building. The proposal to reduce the height of the hedge to 1.5 metres will have only minimal impact on its effectiveness as a screen, as it will still be above the view lines of most road and pavement users and there are no direct views onto the site from land opposite. The new building is also effectively part screened from external

Bat potential has been assessed in accordance with the guidance provided in BS 8596:2015 and is at the level of a non-specialist scoping survey. This assessment is for preliminary advice and does not negate the requirement for a specialist ecological survey

Key

Tag No	Identification number for tree	Species	Species of tree
Top Height	Estimated height of tree	Stem Dia.	Diameter of stem at 1.5 metres
Stems	Number of stems	N, E, S, W	Crown spread at compass points
CC	Crown Clearance	FSB	Direction of first significant branch
Rem. Cont	Remaining safe life expectancy in years	RPA	Root protection area in m ²
Cat.	BS Category (see above)	AIA	Arboricultural Implication Assessment
Age	Y - Young Trees SM Semi Mature EM Early Mature M Mature LM Late Mature exceeds normal life expectancy for species VET Veteran Tree		
Condition	Good Relatively free from defects and / or major pests and diseases		

Fair	Some defects, which could be addressed through tree surgery or minor pests or early symptoms of diseases
Poor	Substantial defects or terminal decline
Dead	Dead