

Arboricultural Impact Assessment

Land at
Westerdale,
Gardden Road
Rhosllanerchrugog
Wrexham

Ref:

AIAWRW/02/19

Revision A

Date:

29th March 2019

Commissioned by:

Mr D. Edwards
On behalf of
Blueprint Architectural LTD

Prepared by

S. Shields

Arboricultural Impact Assessment

Land at
Westerdale
Gardden Road
Rhosllanerchrugog
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'.

Planning permission is being sought to develop site to provide new residential dwellings.

All trees on and immediately adjacent to the site have been surveyed and assessed in accordance with the recommendations of BS5837: 2012. The survey recorded ten individual trees and four groups trees all of high (1) moderate (3) and low (10) quality and amenity value.

The proposed development would require the removal of five trees and four groups of trees, all of low amenity value.

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Date	Revision	
4 th February 2019		Issued for site design
29 th March 2019	A	Issued for planning

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Instruction

- 1.1 Shields Arboricultural Consultancy received instructions from Mr D. Edwards on behalf of Blueprint Architectural LTD to undertake and arboricultural impact assessment at the above property. The client or their agents may copy and distribute this report as required for the purpose of applying for planning permission for or preparing any documents or plans for this or future applications at this site.
- 1.2 Planning permission is being sought to develop site to provide new residential dwellings. The application is outline at this stage but an indicative site layout ref: TO45/002 Rev B has been prepared and is considered in this report.

Scope & Limitations

- 2.1 The purpose of the report is to assess the environmental and amenity values of all trees on or adjacent to the area affected by the proposed development and is based on a site assessment undertaken 5th December 2018 & 25th January 2019 by S. Shields, principal consultant Shields Arboricultural Consultancy. The report will assess the long-term contribution that the trees can make to the area and the arboricultural implications of retaining them and seek to find a satisfactory juxtaposition between the trees and the new development. The report will assess the potential impact that may arise as a result of the proposed construction works and make recommendations for protecting trees, hedges and shrubs where appropriate
- 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 The proposed development site is situated on land at Westerdale, Gardden Road, Rhos, a detached property set in its own private gardens that is unoccupied and has become derelict. Access to the site is via an entrance off Gardden Road and the site shares boundaries with residential properties to the north, east and south, a doctors surgery to the east and a field to the west. The development site does not include the existing house and the land that immediately surrounds it.
- 4.2 The site extends to approximately 0.35 ha, is generally level and is at an elevation of 150m AOD and is reasonably sheltered. The site currently supports a number of trees, but has become overgrown with ruderal vegetation, including small trees and woody shrubs and there are a number of dilapidated structures within the former garden area. The key arboricultural elements being present on the boundaries of the site.



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Soils

- 4.3 The site is free draining, geological maps indicate a till drift over a Pennine lower coal measures undifferentiated mudstone, siltstone and sandstone bedrock.

*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 Planning permission is being sought to develop site to provide new residential dwellings, it is an outline application at this stage but an indicative layout has been provided and is considered in this report.



Site Plan 1:500



Location Plan 1:1250

B	02/19	Design Assess	0.15
A	02/19	Design Assess	0.15
Rev	1	Date	02/19

Project:
Proposed residential development on land adj to Westerdale, Gardden Road, Rhos, Wrexham.

Title:
Proposed:
Site & Location Plan

Scale: (A3)
1:500 &
1:1250

Drawn By:
D.J. Edwards

Date:
May 2015

Drawing No:
T045/002

Sheet:
1 of 1

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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 effects 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 recorded ten individual trees and four groups of trees are categorised as follows:

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)	1
Category B: Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)	3
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.	10
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 was the former garden of the now derelict house, Westerdale and has been neglected for a number of years. As a result, much of the site has become overgrown with trees and woody shrubs. The most significant trees on the site are those on the boundaries and one or two specimens from the former garden.
- 7.5 There are no veteran or potential veteran trees on the site and there are no areas of ancient woodland on or adjacent to the site.

Design Considerations

- 7.6 The site design should seek to incorporate the category A & B trees into the layout.
- 7.7 In addition to the ensuring that the trees are not damaged by the construction process, consideration should also be given to the future

implications associated with the retention of the trees in the terms of their influence on the new properties. To ensure a harmonious relationship between the trees and the proposed dwellings it is necessary to allow adequate separation so that the trees do not exert an overbearing influence, are so close as to promote worries about tree safety and avoid problems associated with leaf litter and shading. .

- 7.8 It is particularly important to consider the effects of shading where trees are to the south of houses and gardens and a tree shade plan showing the shadow trace of the trees on March 21st (spring equinox) along with the position of the tree shadows (category A & B trees only) at 12pm on that day is provided with this report to assist with site layout design. Ideally the layout should take account of existing retained trees and any new planting, with consideration to their ultimate size and density of the foliage and that garden areas should be designed to meet the normal requirement for direct sunlight for at least part of the day. Building Research Establishment guide to good practice (BR209) Site Layout Planning for Daylight and Sunlight advises that, in order to appear reasonably sunlit a dwelling should have at least one main window wall that faces within 90° of due south and that on this wall, all points on a line 2m above ground level are within 4m of a point which receives at least a quarter of the annual probable sunlight hours. The guide also advises that for gardens to appear adequately sunlit, no more than two-fifths and preferably no more than a quarter should be prevented from receiving any sunlight on 21st March.
- 7.9 To assess impact of shading, an evaluation was undertaken of the indicative site layout using the ArborShadow R4 software. The shadow positions for the retained trees at 12pm on 21st March are shown on the Tree Constraints Overlay Plan and this indicates how the site will potentially be affected by shade at some point during the day on this dates. The trees are near or at their full height and the level of shade is not expected to increase significantly in the future.
- 7.10 To ensure that trees do not become overbearing or exert a dominating effect on a property it is recommended that no occupied property is sited within a distance equivalent to 50% of the mature height of a tree (see appendix A), which should be increased to 60% if the tree is directly to the south of a property. There should also be a distance of at least 1.5 metres from the edge of the crown to the building at the closest point, this must take account of the ultimate spread of the tree. No more than 40% of a garden area should be beneath the crown of a tree, and the remaining area should not be shaded by the tree.
- 7.11 All services both under and over ground must be located outside the CEZ around retained trees. All services must be installed in compliance with NJUG chapter 4 recommendations.

Arboricultural Impact

Impact	Category A	Category B	Category C	Category U
Tree Removal			T1, T2, G8, G9, G10, G11, T12, T13, T14	
Facilitative Pruning Required				
RPA Encroachment		T3, T5		
Potential Shading		T3		
Proximity Issues				

7.11 At this stage there is no finalised site layout, so this arboricultural impact is based on the indicative layout plan. From this it can be seen that the proposed development would require the removal of 5 category C trees and four category C groups of trees. There would be some level of encroachment into the RPAs of trees T3 & T5 to provide for the access drive. To ensure that no damage is caused to these trees the use of a no-dig construction method is specified for the access drive and details are provided in section 9. There is the potential for shading though part of the day from T3, this can be limited to an acceptable level by judicious pruning and the design of the dwelling.

Landscaping of the Development

7.12 The development provides an opportunity to enhance the existing tree stock through additional planting. This approach will retain canopy cover in the local area and safeguard the landscape in the longer term and is compatible with the premise of sustainability. A detailed landscape scheme can be prepared following a finalisation of the site layout.

Arboricultural Operations

Permission to remove any tree must be obtained from the Local Planning Authority and must not be undertaken until all pre-commencement conditions have been discharged.

- 8.1 Tree removal and pruning will be required, subject to a grant of planning permission, to implement this development. It is recommended that 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 NPTC certificates. A site-specific risk assessment must be prepared and operators must work to a health and safety method statement. The use of Arboricultural Association Approved Contractors www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons is recommended.
- 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.

Formation of No Dig CCS Access Drive

No Dig CCS Driveway Performance Specification

NB Where no dig construction is specified this must be installed prior to any machinery access in the area or an alternative temporary ground protection system must be used.

- 9.1 In order to provide an access drive an area of hard standing will be formed within the RPA of T3 & T5. As traditional construction has the potential to cause damage to the trees' root systems and soil environment, which would be detrimental to them, it is necessary to use an alternative method of construction. In this case, as the ground conditions appear to be suitable, it is recommended that a no dig above ground method, such as the cell web TRP cellular confinement system (Geosynthetics Limited, Fleming Road, Harrowbrook Ind Est, Hinckley, Leicestershire, LE10 3DU. Tel: 01455 617139) be used.
- 9.2 Essentially no-dig CCS are installed over existing ground levels and without the need for compacting the sub-base. This ensures that the trees' root systems are not damaged by excavation and the soil structure is maintained. Using a porous tarmac or other porous top surface such as gravel, ensures that water can permeate through the footpath to the root system and the exchange of gases and oxygen between the soil and the air is unaffected and is recommended. The CCS must be installed in accordance with the details provided in the AMS (see section 10).
- 9.3 The design will need to consider surface transitions between the existing highway and new driveway. In this case, the heights between the existing road and new driveway can be addressed through part raising the levels of the existing road surface and part minor excavation, outside the RPA. .

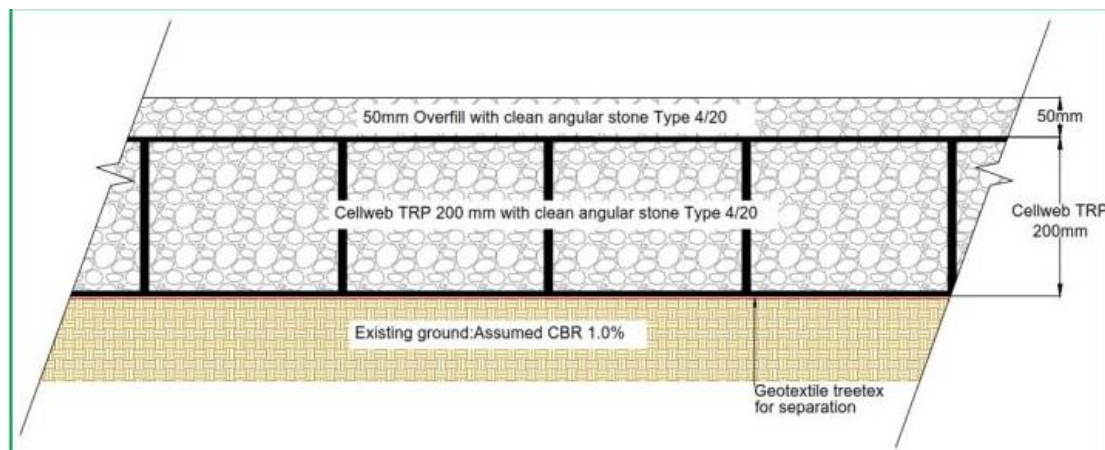
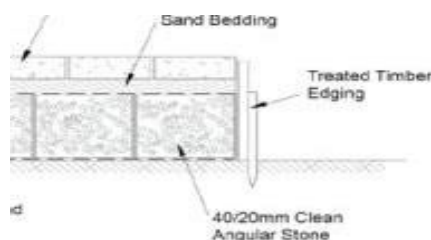


Figure 1 Illustration of Cellweb TRP 200mm Cellular Confinement System

- 9.4 The CCS system is edged using treat timber boards held in place with short stakes. There a gap of 1m between the CCS and the base of any retained tree must be maintained. The edges of the CCS can be incorporated into the landscape using granular fill soil to create a graded edge.



N.B This report does not provide engineering specifications for the no dig CCS driveway and the suitability for the use of a 3-dimensional grid system in this location must be confirmed by an appropriately qualified person. Geosynthetics Limited provides a design service for their products.

Interim Arboricultural Method Statement

- 10.1 This arboricultural method statement (AMS) sets out the details of tree protection measures afforded to the retained trees on and adjacent to the site.
- 10.2 This AMS should be read in conjunction with the Tree Protection Plan which will be prepared when the site layout is finalised. The TPP indicates the construction exclusion zone (CEZ) that must be maintained around each retained tree. These areas must remain undisturbed during the construction process and must be protected using suitable fencing or ground protection as specified.
- 10.3 Copies of the TPP & the AMS must be available on site and all tree protection requirements explained to all persons undertaking activities on the site during the site induction process.
- 10.4 All general tree protection measures must be installed and inspected prior to bringing onto the site any plant, materials or equipment or undertaking any construction works or demolition or any arboricultural works. The LPA must be informed in writing once the tree protection measures are installed.
- 10.5 The site is to be inspected by the consulting arboriculturalist in accordance with the schedule of inspections (see section 10.27).
- 10.6 All measurements are given in metric using standard abbreviations.

Fencing and Ground Protection

- 10.7 The TPP indicates the position all protective fences.

-
- 10.8 Protective fencing will comprise herras fencing, securely fixed into place and braced to resist impact, or as otherwise agreed with the Local Planning Authority.
- 10.9 Ground protection is to be used within the Precautionary Area (where 'no dig' hardstanding is to be provided), identified on the TPP, during the construction phase of the development and will consist of a proprietary system such as Ground Guard protective plates which must extend over the entire PA indicated on the TPP and be securely fastened in place. The type of guard used must be suitable for loads up to 20 tonnes or more. Alternatively the 'no dig' hardstanding can be installed and this will substitute for ground protection.
- 10.10 The protective fencing and ground protection must be inspected on installation and will remain in place until completion of the construction phase and then only removed with the consent of the LPA.
- 10.11 Other than works approved in writing by the LPA, no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing.

General Precautions

- 10.12 No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10m of the trunk of a tree that is to be retained or within any part of the CEZ. Spills kits, suitable for the type fluids, fuels and chemicals stored on site must be available on site and site operatives must have training in their use.
- 10.13 No fires will be lit within 20m of the trunk of any tree that is to be retained.
- 10.14 Storage and mixing areas, contactor parking and all site huts must be outside the CEZ.
- 10.15 Access to the work area is via the main site entrance and must not traverse the CEZ.
- 10.16 All service and drainage routes, below or above ground must avoid the CEZ. All services are to be installed in accordance with NJUG volume 4 Guidelines.

Construction of CCS Parking Area

- 10.23 The area where the no-dig system is to be used is identified on the TPP and should be marked out on the ground.
- 10.24 It is recommended that ground protection be used during the construction phase and the CCS be installed as part of the landscaping operations on the site. This will prevent any damage to the CCS by construction machinery. The ground protection should only be removed immediately prior to the installation of the CCS.
- 10.25 Initial preparations require the careful removal of the upper layers of the existing hardstanding and any ground vegetation and the basic

levelling of the site. This should be undertaken using hand tools, preferably an airspade, under the supervision of the arboriculturalist. Where small high points exist these can be levelled off and small low points filled with sharp sand to provide reasonably even ground on to which the cell web system is laid. Changes in levels should not exceed +/-50mm or exceed an area of 0.5m² and no significant roots (25mm+) are to be severed or damaged.

- 10.26 Once an even surface has been achieved the 3-dimensional CCS is to be installed in accordance with the manufacturer's instructions and details of the technical specification. This will require a layer porous of geo-textile (Geosynthetics Treetex) is placed over the ground beneath the CCS. On to this is laid the 3-dimensional CCS grid, which is pegged into place using proprietary pegs. The cells are then filled using 4/20 mm clean angular stone, of neutral pH, with no fines. This should occur from the outside edge working in and the charged cells used as a working platform. A second layer of geo-textile is then laid and the topped with the finished surface material. The geo grid structure and surface layer are retained and edged using treated timber edging held in place by short wooden stakes. The edges can then be incorporated into the existing landscaped as required.
- 10.27 To ensure that all tree protection measures are properly installed and maintained the site shall be monitored by Shields Arboricultural Consultancy to the following schedule. Details of the findings and photographic evidence of the site inspection visits will be reported to the LPA by email within 24 hrs of the visit. All tree protection measures must remain in place until development work is completed and only removed after receiving written confirmation from the LPA.

Schedule of Inspection

TBA

Conclusion

- 11.1 The development of the site would result in the loss of a number of trees and a reduction in the level of canopy cover on the site. However, it is unlikely that much of the tree cover on the site would be sustainable in the long-term. It is proposed that any loss of amenity is mitigated through a new planting scheme attached to the grant of planning permission.

S.J.A. Shields

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Chartered Forester

29th March 2019

Arboricultural Assessment

Ref. No.	Species	Top Height	Stem Dia mm	N	E	S	W	CC	Age	Rem Cont.	Cat.	RPA m ²	Notes	AIA
T1	Chamaecyparis lawsoniana (Lawson Cypress)	14	260, 160, 160, 140, 140, 120	2.8	2	2.9	3.3	1	M	10+	C1	78	Condition: Fair Notes: Multi-stem conifer constrained by adjacent structures and road. Adversely pruned and topped, has significantly detracted from the appearance of this tree.	Minor ornamental specimen planted on land at the entrance to the site. Poor form and incongruous in the landscape. Trees would be removed to allow access to the site. Any loss of amenity would be compensated for through new planting on the site.
T2	Chamaecyparis lawsoniana (Lawson Cypress)	14	300	2.7	2.4	2.8	2.2	2.5	M	10+	C1	41	Condition: Fair Notes: Poor pruning has detracted from the appearance of this tree.	As T1.
T3	Quercus robur (Common Oak)	18	840, 550	9.5	8.3	10	11.3	1.5	M	20+	B2	456	Condition: Fair Notes: Twin stem tree on the boundary of the site. Large	Tree is a prominent specimen in the site, has been downgraded from

													wound on stem base with exposed wood, not degraded. Number of old pruning wounds through crown, minor decay.	category A because of condition and past pruning. Tree should be retained.
T4	Quercus robur (Common Oak)	17	760	9.5	6	8	8	4	M	10+	B2	261	Condition: Fair Notes: Tree growing on made-up ground to the south of the existing garage.	Tree has been removed following storm damage
T5	Salix X chrysocoma (Weeping Willow)	12	600	6.6	5	6.5	7	1	M	20+	B2	163	Condition: Fair Notes: Part of the ornamental planting associated with the old house.	Tree provides a reasonable level of amenity to the site, however its contribution to the wider landscape is limited because of its position. Tree should be retained if possible.
T6	Quercus robur (Common Oak)	17	720	8	8	7.4	8.3	4	M	40+	A2	235	Condition: Fair Notes: On adjacent land to the north of the site. Tree has a significant lean to the south.	Very prominent specimen in the landscape. Tree should be retained.

T7	Fraxinus excelsior (Ash)	18	710, 480	5	3.6	9.5	9	5.5	M	20+	B2	332	Condition: Fair Notes: Twin stem tree on the boundary of the site.	Reasonably prominent specimen. Tree should be retained if possible.
G8	Populus trichocarpa (Western Balsam Poplar)	8	140	3	3	3	3	1	SM	10+	C2	9	Condition: Good Notes: Group of ornamental trees planted to line the drive to the old house.	Minor specimens with a limited amenity value at this time, although could potentially have more value in the future, however unlikely to be sustainable in the is location. If removed any loss of amenity could be satisfactorily mitigated through landscape planting of the site as part of the proposed development.
G9	Prunus padus (Bird Cherry), Pyrus (Pear), Prunus avium (Wild Cherry), Fraxinus excelsior (Ash)	12	220	3	3	3	3	0.5	OM	10+	C2	22	Condition: Fair Notes: Group of old fruit trees and self-set trees colonising the site.	Limited value and not sustainable in the long-term. Trees will be removed to facilitate development of the site. Any loss of amenity will be

														mitigated through new planting.
G10	Prunus spinosa (Blackthorn), Prunus cerasifera (Cherry Plum), Crataegus monogyna (Hawthorn)	11	250	3	3	3	3	1	M	<10	C2	28	Condition: Fair Notes: Group of self-set trees colonising the site.	As G9
G11	Acer pseudoplatanus (Sycamore), Quercus robur (Common Oak), Crataegus monogyna (Hawthorn)	14	500	3	3	3	3	4	EM	20+	C2	113	Condition: Fair Notes: Group of mixed species trees colonising an area of made up ground to the south of the site.	Has some value in terms of canopy cover but unlikely to develop into a sustainable group of trees unless managed. Trees will be removed to facilitate development of the site. Any loss of amenity will be mitigated through new planting.
T12	Populus nigra 'Italica' (Lombardy Poplar)	20	750	2.5	2	3.5	3	2	M	20+	C1	255	Condition: Fair Notes: Planted as a pair of trees with T13.	Prominent tree but incongruous with the local landscape and unlikely to be sustainable. Trees will be removed to facilitate development of the site. Any loss

														of amenity will be mitigated through new planting.
T13	Populus nigra 'Italica' (Lombardy Poplar)	20	600	2.5	3	3.5	1.5	2.5	EM	20+	C2	163	Condition: Fair Notes: As T12.	As T12.
T14	Acer pseudoplatanus (Sycamore)	16	400, 300, 350, 110, 280, 100	4.4	5	5.6	4.6	1	M	20+	C2	290	Condition: Fair Notes: Multi-stem tree, acute unions and included bark may impact on long-term structural integrity. Heavy ivy cover.	Reasonably prominent tree, however has poor form and potential structural weaknesses. Tree will be removed to facilitate development of the site. Any loss of amenity will be mitigated through new planting.
T15	Acer pseudoplatanus (Sycamore)	16	350	3	4	4	3	3	EM	10+	C1	55	Condition: Fair Notes: Tree on adjacent land.	Minor specimen, may provide some maturity to the site if retained.

Ultimate Heights of Main Species

Oak 18

Ash 18

Sycamore 10

Notes

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 with an estimated life expectancy of at least 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 with an estimated lifespan of at least 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 with an estimated lifespan of at least 10 years or young trees with a stem diameter below 150mm.

Category U: Trees in such a condition that they cannot realistically be retained as living in the context of the current land use for longer than 10 years. *NB. Category U trees can have an existing of potential conservation value which it might be desirable to preserve.*

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		

