

APPENDIX E

ARBORICULTURAL REPORT

Arboricultural Impact Assessment

Collier's Park
Wrexham Road
Gresford

Ref:
AIA/CPG/11/17

Date:
23rd November 2017

Commissioned by:
Mr K. O'Hanlon
on behalf of
Glyndwr University Wrexham

Prepared by
S. Shields

Arboricultural Impact Assessment

Collier's Park
Wrexham Road
Gresford

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'*.

Summary

Planning permission is being sought to develop the site to provide additional training facilities.

There are a number of trees and shrubs on the site and an arboricultural assessment has been undertaken in accordance with the procedures and protocols set out in BS 5837: 2012. This assessment has identified and recorded fifteen individual trees and four groups of trees which are categorised as 8 category A (high value), 8 category B (moderate value) and 3 category C (low value).

Under the current proposal there is a requirement to remove 3 category C trees and to form an area of hardstanding adjacent to W13. The trees to be removed are minor specimens and their loss will not significantly affect the levels of canopy cover and natural capital or have a negative impact on public amenity. To minimise the impact to tree roots, the hardstanding will be utilising low impact 'no dg' CCS technology.

It will also be necessary to provide a new boundary fence near trees in W8. Providing reasonable care is taken to install the fence, siting posts away from significant trees and minimising post hole size etc, this operation will have little impact on the health or amenity of W8. If thinning is undertaken as part of the development, there would be a significant improvement to this shelter belt.

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Instruction

- 1.1 Shields Arboricultural Consultancy received instructions from Mr K O'Hanlon on behalf of Lawray Architects. 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 additional training facilities.

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 on 28th October 2017 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 site is situated to the south of the village of Gresford, it extends to 4.9 ha and is set in open agricultural fields. Access is via the main entrance off the highway. The site has boundaries with open fields to the north and west, the Beeches Hotel and restaurant complex to the south and the highway to the east. The site is currently used as a football training facility and comprises a number of sports pitches along with a facilities building in the south east corner and a car park and access road along the east boundary.
- 4.2 There are a number of trees on the site, distributed around the boundaries as a recently planted shelter belt, and in two areas of woodland in the south east and south west corners of the site.



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Soils

- 4.3 The site is mainly set to amenity grass but with an access road and area of hard standing adjacent to the east boundary. Soils at the site appear to be free draining with no indication of waterlogging and

geological maps indicate a glacial sand and gravels over and mudstone, sandstone and conglomerate bedrock. This type of soil is usually amenable to rooting although the areas of hard standing areas would act as a barrier to root development.

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 develop the site to provide additional training facilities.

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 14 individual trees, 1 group of trees, 1 hedge and 3 areas of woodland which 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)	8
Category B: Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)	8
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.	3
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 most significant trees on the site are the large beeches within the two areas of woodland on and adjacent to the east boundary, the areas of woodland themselves and the shelter belt running along the north and west boundary of the site. There are no veteran trees or areas of ancient woodland on or adjacent to the site.
- 7.5 The areas of woodland, W5 & W13 link with the shelter belt W8 and the roadside hedge H19. Together these trees provide an attractive setting for the site and help to screen it from the adjacent highway and hotel – restaurant complex to the south. The woodland and particularly the large specimen trees are significant landscape feature and are clearly visible from the surrounding area.
- 7.6 Age and species distribution was good across the site although the shelter belt (W8) is beginning to mature and would benefit from silvicultural thinning.

Design Considerations

- 7.7 The site design should seek to incorporate as many category A & B trees into the layout as possible.
- 7.8 The proposed development provides an opportunity to improve the arboricultural resource on the site through the management of the existing tree stock, namely the silvicultural thinning of the shelter belt.

Overall Arboricultural Impact

- 7.9 Under the current proposal there is a requirement to remove 3 category C trees (T14, 15 & 16) and to form an area of hardstanding adjacent to W13. The trees to be removed are minor specimens and their loss will not significantly affect the levels of canopy cover and natural capital or have a negative impact on public amenity. To minimise the impact to tree roots, the hardstanding will utilise low impact 'no dg' CCS technology.
- 7.10 It will also be necessary to provide a new boundary fence near trees in W8. Providing reasonable care is taken to install the fence, siting posts

away from significant trees and minimising post hole size etc, this operation will have little impact on the health or amenity of W8. If thinning is undertaken as part of the development, there would be a significant improvement to this shelter belt.

Impact	Category A	Category B	Category C	Category U
Tree Removal			3 (T14, 15, 16)	
Facilitative Pruning Required	1 (W8)			
RPA Encroachment	1 (W13)			
Potential Shading				
Proximity Issues				

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 Parking Area

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 parking spaces an area of hard standing will be formed over an area of existing amenity grass which is within the RPA of some trees in W13. 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, effecting only the superficial surface level of the existing soft ground. If the alternative access option is used the new drive will need to meet with the existing driveway but the same principles would apply.

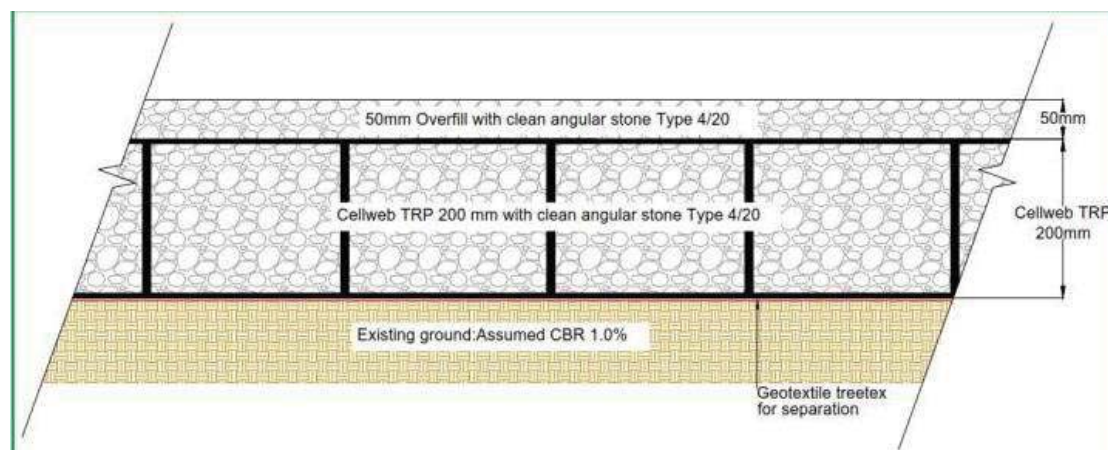
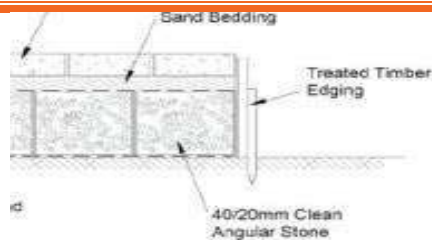


Figure 1 Illustration of Cellweb TRP 200mm Cellular Confinement System

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 footpath 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.

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 (CPG/TPP/11/17). 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 any ground vegetation to be carefully removed 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

1. On completion of erection of fencing and installation of ground protection prior to commencement of development works
2. During installation of CCS
3. Monthly throughout the project

- 10.28 Prior to the commencement on site of any work, a competent person is to be appointed to monitor the day to day activities on site. In the case of a tree being damaged or where an unexpected event arises it will be for this person to contact Shields Arboricultural Consultancy to seek advice on contingency measures.

Conclusion

- 11.1 Providing the recommendations of this report are followed, the proposed development can be undertaken with minimum impact to the existing arboricultural environment.

S.J.A. Shields

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M.Arbor.A, MICFor.

Chartered Forester

23rd November 2017

Arboricultural Assessment

Ref. No.	Species	Top Height	Stem Dia mm	N	E	S	W	CC	Age	Rem Cont.	Cat.	RPA m ²	Notes	AIA
G1	Betula pendula (Silver Birch), Pinus sylvestris (Scots Pine)	8	230	1	4.3	4	4	4	SM	40+	B2	24	Condition: Good Notes: Small ornamental group of semi-mature trees. RPA constrained by access road to the west,	Have the potential to make a reasonable contribution to the amenity of the site and wider area. Trees will be retained and protected under current proposals.
T2	Fagus sylvatica (Beech)	20	900	1	5.4	6	6.8	6.3	M	20+	B1	366	Condition: Fair Notes: Tree has suffered from compaction in RPA.	Although the condition is slightly degraded because of the RPA compaction, this tree still makes a significant contribution to the amenity of the site and wider area. Trees will be retained and

T3	Fagus sylvatica (Beech)	20	910	1	9.3	6	4.5	9.5	M	20+	B2	375	Condition: Fair Notes: Tree is affected by a bark canker, possibly indication the early stages of Beech Bark Disease.	Although the condition is slightly degraded because of the BBD, this tree still makes a significant contribution to the amenity of the site and wider area. Trees will be retained and protected under current proposals.
T4	Acer pseudoplatanus (Sycamore)	19	900 500	2	6.8	9	7.5	7.1	M	20+	B2	480	Condition: Good Notes:	Important specimen in the broader woodland area W5.
W5	Acer pseudoplatanus (Sycamore), Acer platanoides (Norway Maple), Fraxinus excelsior (Ash)	19	600	1	4	4	4	4	M	40+	A2	163	Condition: Good Notes: Area of woodland comprising SM – M specimens along with individual trees as identified.	Area of woodland along north east boundary of the site, providing a level of screening and making an important

																						contribution to the amenity of the site and wider area. Woodland will be retained and protected under current proposals.
T6	Fagus sylvatica (Beech)	20	870	1	4.4	6	6.7	7.9	M	40+	A2	342	Condition: Good Notes:	Very significant individual tree and component of W5, will be retained and protected under current proposals.								
T7	Fagus sylvatica (Beech)	21	940	1	6	6	4.5	5.7	M	40+	B2	400	Condition: Good Notes:	Significant individual tree and component of W5, will be retained and protected under current proposals.								
W8	Fraxinus excelsior (Ash), Pinus sylvestris (Scots Pine), Acer pseudoplatanus (Sycamore), Acer platanoides (Norway Maple)	9	250	1	4	4	4	4	SM	40+	B2	28	Condition: Good Notes: Area of recent woodland planted as a shelter belt and screen around the north and west boundaries of the	Provided as valuable screen and has the potential to become more significant in the landscape if managed appropriately.								

																	site. Trees are beginning to compete for light and resources and would benefit from a silvicultural thinning.	The proposed development requires a boundary fence to be erected in the proximity of this woodland group. Providing that appropriate care is taken, this operation will not impact on the health or amenity value of the this group.
T9	Fagus sylvatica (Beech)	18	900	1	7.4	8	8	8	8	8	M	40+	A1	366	Condition: Good Notes: Tree on neighbouring land.	Will be retained and protected to the required standard under the current proposals.		
T10	Fagus sylvatica (Beech)	20	950	1	10.5	9	9	9	9.5	M	40+	A1	408	Condition: Good Notes:	Will be retained and protected to the required standard under the current proposals.			
T11	Fagus sylvatica (Beech)	20	950	1	8	8	8	8	8.2	M	40+	A1	408	Condition: Good	Will be retained and protected to the required			

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																be relocated on the site.
T15	Acer rubrum (Red Maple)	2.5	50	1	1	1	1	1	1	NP	20+	C1	1	Condition: Good Notes:	Young tree, will be removed to facilitate the development. Could possibly be relocated on the site.	
T16	Unknown (Unknown)	4	110	1	3	3	3	3	3	Y	20+	C1	5	Condition: Good Notes:	Young tree, will be removed to facilitate the development. Could possibly be relocated on the site.	
T17	Fagus sylvatica (Beech)	20	745	1	3.5	5.5	3.7	4.9	M	20+	B2	251	Condition: Good Notes: Some asymmetry in crown as a result of competition with a neighbouring tree, now removed. RPA constrained by access road to the west,	Although the condition is slightly degraded because of the appearance, this tree still makes a significant contribution to the amenity of the site and wider area. Trees will be retained and protected under current proposals.		

T18	Fagus sylvatica (Beech)	20	940	1	8.5	8	9.2	9.7	M	40+	A2	400	Condition: Good Notes: RPA constrained by access road to the west,	Very significant specimen. Will be retained and protected under the current proposal.
H19	Betula pendula (Silver Birch), Crataegus monogyna (Hawthorn)	6	110	1	3	3	3	3	SM	20+	B2	5	Condition: Good Notes: Hedgerow with specimen trees along the east boundary of the site. RPAs constrained by access road to the west,	Provides screening and a reasonable amenity feature to the site and wider area. Will be retained and protected under the current proposals.

Ultimate Heights of Main Species

Sycamore 23 Beech 23 Scots Pine 20 Birch 18

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 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.

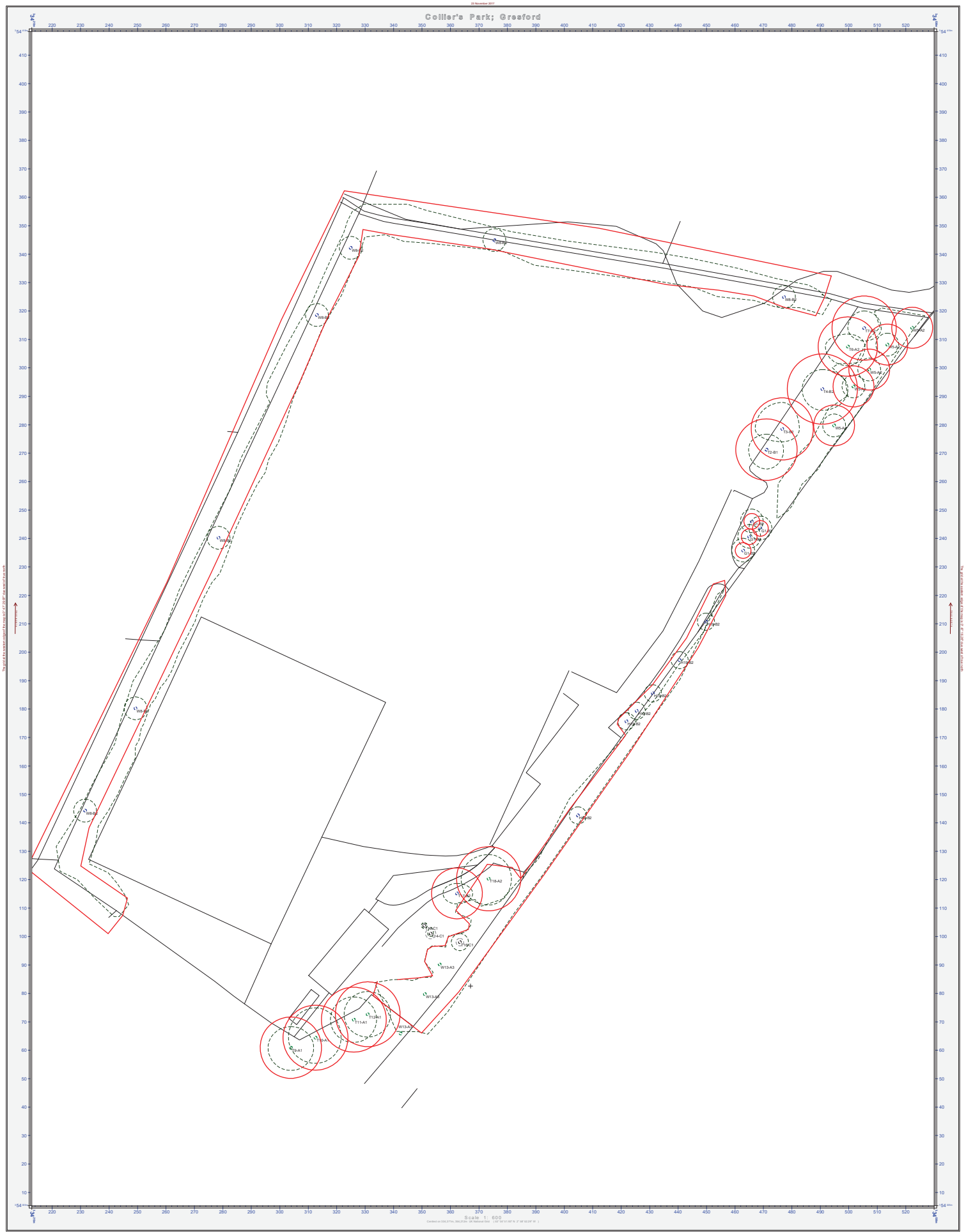
Category C: Trees of low quality and value currently in adequate condition to remain until new planting could be established. Trees in this category would not usually be retained if they would pose a significant constraint to development.

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.

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



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Tree & Woodland Management Solutions

Tree Constraints Plan
Collier's Park
Gresford

- Tree Cal A
- Tree Cal B
- Tree Cal C
- RPA
- RPA Cal C
- Canopy Spread

Drawing No: CPG/TCP/11/17/01
Drawn By: S. Shields
Scale: 1:600 @ A1
Date: 23rd November 2017
Revision:

Do not scale from this drawing all dimensions to be checked on site
Drawing is colour coded and a monochrome copy should not be relied upon

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