

Arboricultural Impact Assessment

Land at
Wrexham Law Courts
Wrexham

Ref:
AIA/WCS/12/17
Revision E

Date:
30th July 2019

Commissioned by:
Mr A. Sixsmith
on behalf of
Interserve Construction LTD

Prepared by
S. Shields

Arboricultural Impact Assessment

Land at
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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 a new custody suite to serve the existing law courts.

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 24 individual trees and 3 groups of trees which are categorised as 3 category A (high value), 17 category B (moderate value) and 5 category C (low value) and 2 category U (unsuitable for retention). Some trees are off-site in third party ownership.

The proposed development will require the removal of eight trees, 3 category B, 4 category C and 1 category U tree. It is proposed to mitigate the impact to amenity through significant new planting on the site.

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Date	Revision	
19 th December 2017	Original	Draft For Site Planning
2 nd July 2018	A	For Planning Application
5 th July 2018	B	Amended tree removal
31 st July 2018	C	Following publication of plans for adjacent site and review of engineering requirements for new access road
15 th July 2019	D	Revised access route
30 th July 2019	E	Note TPO trees

Instruction

- 1.1 Shields Arboricultural Consultancy received instructions from Mr A. Sixsmith on behalf of Interserve Construction LTD, to provide an updated version of an Arboricultural Impact Assessment at the above site.
- 1.2 Planning permission is being sought to develop site to provide a new custody suite to serve the existing Law Courts. An initial Tree Constraints Plan was prepared to inform the site layout and this document will assess the impact of the preferred layout. 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.

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 8th December 2017 and subsequent assessments on the 7th June 2018 and 22nd May 2019 by S. Shields, principal consultant Shields Arboricultural Constancy. 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

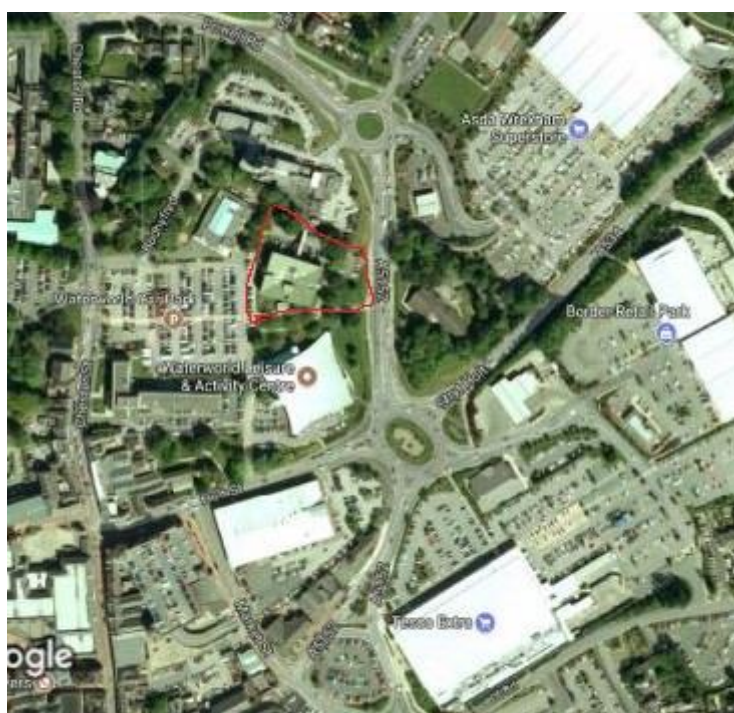
- 3.1 Forestry Act; the felling of trees is controlled by the Forestry Act, which requires that a felling licence is obtained prior to cutting down any trees. The Forestry Act does not apply to the felling of trees growing within an orchard, private garden, churchyard or public open space. The Forestry 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 which forms part of the Wrexham Law Courts is situated in the centre of the town of Wrexham. The site is situated between Powell Road / Bodhyfryd Road and Chester Road, close to Wrexham Police Station, the Memorial Hall and Waterworld Leisure and activity centre.
- 4.2 The site is currently used as car parking for the law courts and is accessed via a service road off Bodhyfryd Road. There are areas of amenity grass to the east and west of the Law Courts and there are a number of trees on and adjacent to the site. The site is at an elevation of 85m AOD and is sheltered.



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Soils

- 4.3 The site is mainly set to hard standing with some areas of soft landscape. Soils at the site appear to be free draining with no indication of waterlogging and geological maps indicate a glacial sand and gravels over a 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 a new custody suite to serve the existing Law Courts. The site will be accessed via two existing service roads, one which serves the current Law Court car park and a second which serves the adjacent Memorial Hall.

Figure 1 – Site Layout

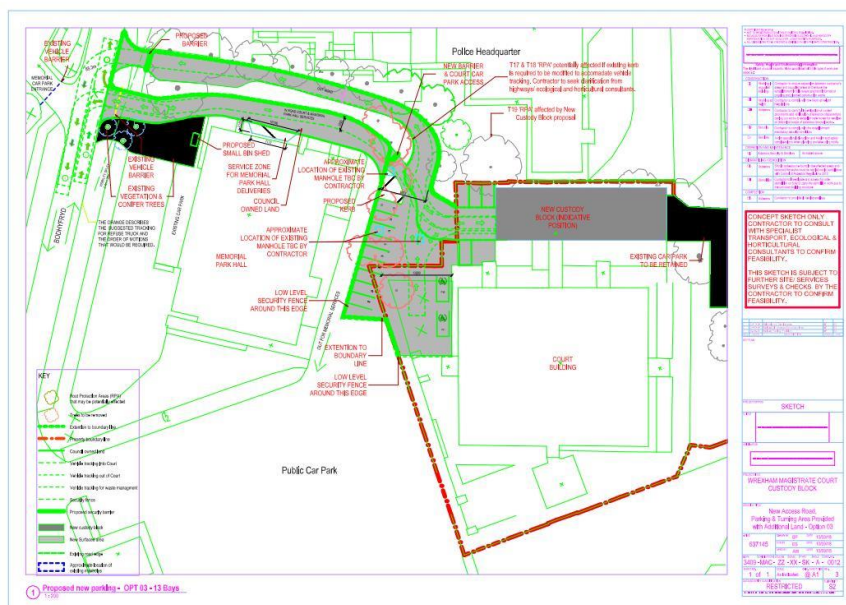
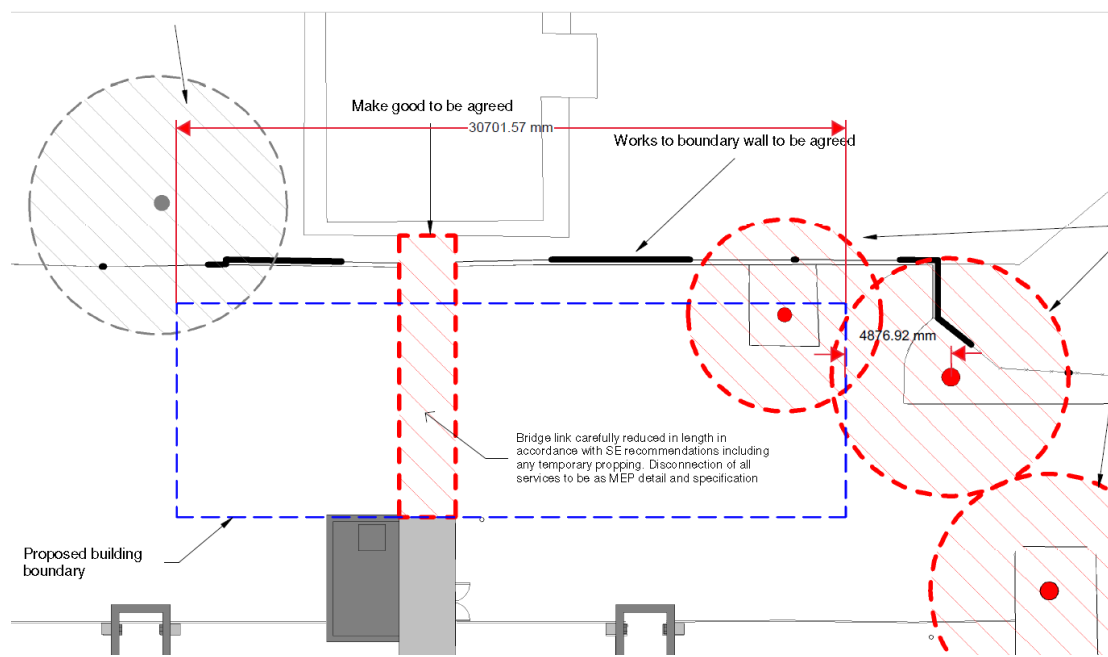


Figure 2 – Custody Suite Building Detail



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:
- The avoidance of physical damage to the aerial parts of the trees (i.e. Impact and other damage to trunk and branches)
 - The avoidance of damage to retained trees as a result of the severance or other physical damage to their roots
 - 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
 - To ensure free gaseous exchange is permitted between the upper layers of soil and the atmosphere
 - 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 otherwise removed or damaged without prior permission from the relevant authority.
- 7.3 The survey recorded 24 individual trees and 3 groups of trees 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)	3
Category B: Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)	17
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.	5
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.	2

Arboricultural merits and the significance of the trees in the landscape

- 7.4 The most significant arboricultural element is the group of trees forming the row long the service road, the large mature trees within the car park and the groups of trees on the amenity grass to the east of the existing court building. A number of trees are protected under a Tree Preservation Order ref: WCBC 282 / 2018 'Law Courts & Police HQ, Bodhyfryd, Wrexham LL12 7BP. These are identified in appendix A.

Design Considerations

- 7.5 The site layout has been designed to retain and incorporate as many category A & B trees into the layout as was possible, utilising a pre-design Tree Constraints Plan. Trees protected by the TPO have been given the highest retention priority and the scheme has been re-designed to accommodate these assets.
- 7.6 The proposed development provides an opportunity to improve the arboricultural resource on the site through new tree planting. This should complement the existing landscape and setting.

Arboricultural Impact of the Development

Impact	Category A	Category B	Category C	Category U
Tree Removal		3 (T11, T12, T16)	4 (T10, T13, T14, T15)	1 (T20)
Facilitative Pruning Required	(T21)	(T19)		
RPA Encroachment	(T2, G2a, T21)	(T19)		
Potential Shading				
Proximity Issues				

- 7.7 To implement the development of the site to provide the proposed Custody Suite and associated access road and car park will require the removal of eight trees, (T10, T11, T12, T13, T14, T15, T16 & T20) three category B and four category C, and one category U tree. It is recognised that these trees provide a reasonably level of amenity to the site and wider area, however, it would not be possible to develop the site and protect and retain these trees to the required standard. To mitigate the loss of trees and associated amenity it is proposed that substantial replacement planting, undertaken in a manner that will provide a sustainable, high quality tree resource for the future, will take place at the site.
- 7.8 In addition to the loss of trees, there is also some level of encroachment into the RPAs and Crown Spreads of two trees, T19 & T21. In the case of T19 the proposed structure encroaches into the RPA by 100m², which is 16% of the total for this tree. The encroachment occurs within the area where the RPA extends into the existing car park. The effect of the car park on soil quality is likely to have restricted root development in this direction and it is probable that there is a bias in the distribution of the roots of this tree towards

the soft landscape area to the north, and in practical terms, the level of RPA encroachment would be much smaller. Previous iterations of BS 5837 have allowed an off-setting of the RPA by up to 20% and although this was altered in the current iteration to advocate a bespoke approach on a tree by tree basis it provides a good reference point when considering overall impacts (BS5837: 2005). As the adjacent site is to be re-developed and the existing building demolished, there is an opportunity to provide additional soil resources for this tree, which would help to mitigate the impact of any encroachment into the RPA. The crown of the tree is quite high and the building can be formed beneath it subject to some minor pruning. A similar situation exists for T21, here the extent of encroachment is around 19%, but again the affects of the car park on root development come in to play. The area around T21 is also to be improved, with the existing car park to the east being removed and replaced by a soft landscape area (see Tree Planting Scheme). On balance, it is considered that both trees would be capable of tolerating the incursions into their RPAs and thus can be retained on site in the short to medium term.

- 7.9 There is also a requirement to resurface part of the court access road. This where it is in the RPA of T2. This will be done by planning off the top layer of wearing surface to a maximum depth of 75mm and laying the new surface over the existing sub-base. Given the nature of the sub-base, it is very unlikely that any tree roots would be present in this layer and there is no additional compaction required. The proposed resurfacing would not have a detrimental impact on T2 or G2a.
- 7.10 Shading of the building is unlikely to cause any significant problems in this situation given the proposed use.

Landscaping

- 7.11 To mitigate the impacts of the tree loss associated with the development and to enhance the existing tree stock it is proposed that significant new planting will take place at the site. This will see the planting of tree species capable of becoming large specimens, undertaken in a way that is sustainable and provides sufficient soil resources for these trees to become established. This approach will improve canopy cover in the local area and increase age diversity in the local tree population. Such approaches help to safeguard landscapes, increase the extent of the urban forest and are compatible with the premise of sustainability. A detailed landscape scheme, prepared in full accordance with BS 8545: 2014, has been prepared.

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.

Arboricultural Method Statement

- 9.1 This arboricultural method statement (AMS) sets out the details of tree protection measures afforded to the retained trees on and adjacent to the site.
- 9.2 This document should be read in conjunction with the Tree Protection Plan (TPP) ref: WCS/TPP/OL/12/17Rev D. 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 as specified.
- 9.3 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.
- 9.4 All 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.
- 9.5 The site is to be inspected by the consulting arboriculturalist in accordance with the schedule of inspections.
- 9.6 All measurements are given in metric using standard abbreviations.

Fencing and Ground Protection

- 9.7 The TPP indicates the position all protective fences.
- 9.8 Protective fencing will comprise 'herres' fencing panels which are to be fixed and braced securely or as agreed with the Local Planning Authority.
- 9.9 Ground protection will be used in the Precautionary Area 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.

- 9.10 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.
- 9.11 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

- 9.12 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. An emergency spill kit of appropriate capacity and suitable for use with all fuels, oils and chemicals brought on to site must be available at all times.
- 9.13 No fires will be lit within 20m of the trunk of any tree that is to be retained.
- 9.14 Storage and mixing areas must be outside the CEZ and must be identified prior to the commencement of the construction work. Contractor parking should be in areas indicated on the TPP.
- 9.15 Access to the work area is via the main site entrance and must not traverse the CEZ.
- 9.16 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.
- 9.17 To ensure that all tree protection measures are properly installed it is recommended that the site 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.

Schedule of Inspection

TBA

S.J.A. Shields

Uni Cert For. & F.P. (Bangor)

P. Dip. Arb. (RFS), MSc. Arb. & Urban For. (UCLan)

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Chartered Forester

Revision E

30th July 2019

Arboricultural Assessment

Ref. No.	Species	Top Height	Stem Dia mm	N	E	S	W	CC	Age	Rem Cont.	Cat.	RP A m ²	Notes	AIA
T1	Aesculus hippocastanum (Horse Chestnut)	20	930	4.7	7.9	5.3	6.7	3	OM	20+	B1	391	Condition: Fair Notes: Stem bifurcates at 1.5m Decay in stem.	Reasonably significant specimen, in a prominent location. Tree will be retained and protected under that current site layout. See Method Statement
G1a	Chamaecyparis lawsoniana (Lawson Cypress)	14							M	20+	B2			Reasonably significant group of trees in terms of their landscape value, will be retained and protected under that current site layout. See Method Statement

T2	Acer pseudoplatanus (Sycamore)	18	615	8	4.7	4.4	8.2	6	M	20+	B1	171	Condition: Fair Notes: Some die-back in upper crown, restricted rooting space. TPO tree.	Trees T2 – T9 & T17 form a prominent row alongside the access road. No construction activities are proposed within the RPAs of these trees and they will be retained and protected during the proposed development. See Method Statement.
T3	Acer pseudoplatanus (Sycamore)	19	490	4	3.2	4.7	3	4	M	20+	B2	109	Condition: Fair Notes: Low vitality and die-back in upper crown. Restricted rooting space. TPO tree.	As T2
T4	Acer pseudoplatanus (Sycamore)	19	670	6	5.7	4.8	5.4	4	M	40+	A1	203	Condition: Good	As T2

													Notes: Restricted rooting space. TPO tree.	
T5	Fraxinus excelsior (Ash)	20	550	3	4.4	4.6	3.4	4	M	10+	B1	137	Condition: Fair Notes: Restricted rooting space. Decay fungus <i>Inonotus hispidus</i> noted in upper crown. TPO tree.	As T2
T6	Acer pseudoplatanus (Sycamore)	16	600	5	3.6	4.2	3.3	4	M	10+	U	163	Condition: Poor Notes: Significant decay in base of tree.	Removal on arboricultural management grounds is recommended.
T7	Acer pseudoplatanus (Sycamore)	17	510	5	4.1	4.7	3.4	4	M	20+	B2	118	Condition: Fair Notes: Restricted	As T2

													rooting space. TPO tree.	
T8	Acer pseudoplatanus (Sycamore)	20	610	6	3.3	5.1	3.2	6	M	20+	B1	168	Condition: Good Notes: Restricted rooting space. TPO tree.	As T2
T9	Acer pseudoplatanus (Sycamore)	19	650	5	6	5.2	3.9	6	M	20+	B1	191	Condition: Fair Notes: Restricted rooting space.	As T2
T10	Fagus sylvatica (Beech)	12	400	3	4.6	3	3.8	2	EM	20+	C1	72	Condition: Good Notes: Restricted rooting space.	T10 – T15 form a group of trees on an area of amenity grassland between the site car park and the memorial hall to the west. Trees are on third party land. Tree will be removed to facilitate

														construction of the proposed access road and car park. Any loss of amenity will be mitigated through new planting on the site.
T11	Fagus sylvatica (Beech)	16	380	3.2	4.5	4.3	4.3	4	EM	20+	B1	65	Condition: Good Notes: Restricted rooting space.	As T10
T12	Acer platanoides (Norway Maple)	18	365	3.6	4.6	3.4	4.2	3.5	EM	20+	B1	60	Condition: Good Notes: Restricted rooting space.	As T10
T13	Acer platanoides (Norway Maple)	17	370	3.6	2.8	4.5	4	3	EM	10+	C1	62	Condition: Good Notes: Restricted rooting space.	As T10
T14	Prunus avium (Wild Cherry)	14	310	5.5	3.7	3	6	4	EM	10+	C1	43	Condition: Good	As T10

													Notes: Restricted rooting space.	
T15	Prunus avium (Wild Cherry)	12	310	4.3	5.8	5	2.2	2	EM	10+	C1	43	Condition: Good Notes: Restricted rooting space.	As T10
T16	Betula pendula (Silver Birch)	18	345	3	3.3	2.7	2.6	2	M	20+	B1	54	Condition: Good Notes: Restricted rooting space.	As T10
T17	Carpinus betulus (Hornbeam)	14	310	6.1	4	4.7	4.7	2	EM	20+	B1	43	Condition: Good Notes: Restricted rooting space. TPO tree.	As T2
T18	Tilia X europaea (Common Lime)	21	600	6	4	4	4.7	4	M	20+	B2	163	Condition: Fair Notes: On third party land to the north of	Reasonable prominent tree. Will be retained and protected under the current site layout.

													existing car park.	
T19	Aesculus hippocastanum (Horse Chestnut)	22	1200	7	7	8.4	8.6	3	OM	10+	B2	652	Condition: Fair Notes: Tree is beginning to decline. Restricted rooting space. TPO tree.	Prominent specimen on third party land. Some minor encroachment into the RPA and canopy of this tree by the proposed new structure, however given the effect of the existing hard standing on the development of the RPA it is considered that the impact of the encroachment can be managed and the tree protected and retained. See Method Statement.
T20	Tilia X europaea (Common Lime)	18	850	5	5.3	6.6	6.5	3	M	>10+	U	327	Condition: Poor	Tree is to be removed on arboricultural

													Notes: Restricted rooting space. Tree is now infected by and aggressive decay fungus, <i>K. deusta</i> and has a very limited life expectancy	management grounds.
T21	Acer pseudoplatanus (Sycamore)	19	900	7	9.4	6.7	6.4	3	M	40+	A2	366	Condition: Good Notes: Restricted rooting space. Cavity on stem. Old pruning wound with exudates.	Significant and prominent tree in the local landscape. Some encroachment into the RPA and canopy of this specimen by the proposed new structure, however given the effect of the existing hard standing on the development of the RPA it is considered that the impact

														of the encroachment can be managed and the tree protected and retained. See Method Statement.
T22	Acer pseudoplatanus (Sycamore)	18	750	5.3	7	5.6	6.3	3	M	40+	A2	255	Condition: Good Notes: Restricted rooting space. TPO tree.	Significant and prominent tree in the local landscape. Will be retained and protected under the current site layout.
G23	Betula pendula (Silver Birch)	17	400	5.2	5	5	5	3	M	20+	B2	72	Condition: Good Notes: Group of three trees on grass area to the east of Law Courts. TPO tree.	Reasonably significant group of trees. Will be retained and protected under the current site layout.
G24	Acer pseudoplatanus (Sycamore), Acer platanoides (Norway Maple)	18	390	5	5	5	5	3	EM	20+	B2	69	Condition: Good	As G23

													Notes: Group of three trees on grass area to the east of Law Courts. TPO tree.	
T25	Tilia X europaea (Common Lime)	14	370	4.2	4.5	4.9	4.3	2	EM	20+	B1	62	Condition: Good Notes: Individual tree on grass area to the east of Law Courts. TPO tree.	As G23
T26	Prunus padus (Bird Cherry)	5	100 (8)	3	3	3	3	1	SM	10+	C1	36	Condition: Fair Notes: Multi-stem shrub on third party land.	Minor specimen can be retained and protected under the current site layout.

Ultimate Heights of Main Species

Lime 21

Sycamore 20

Horse Chestnut 22

Ash 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 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.

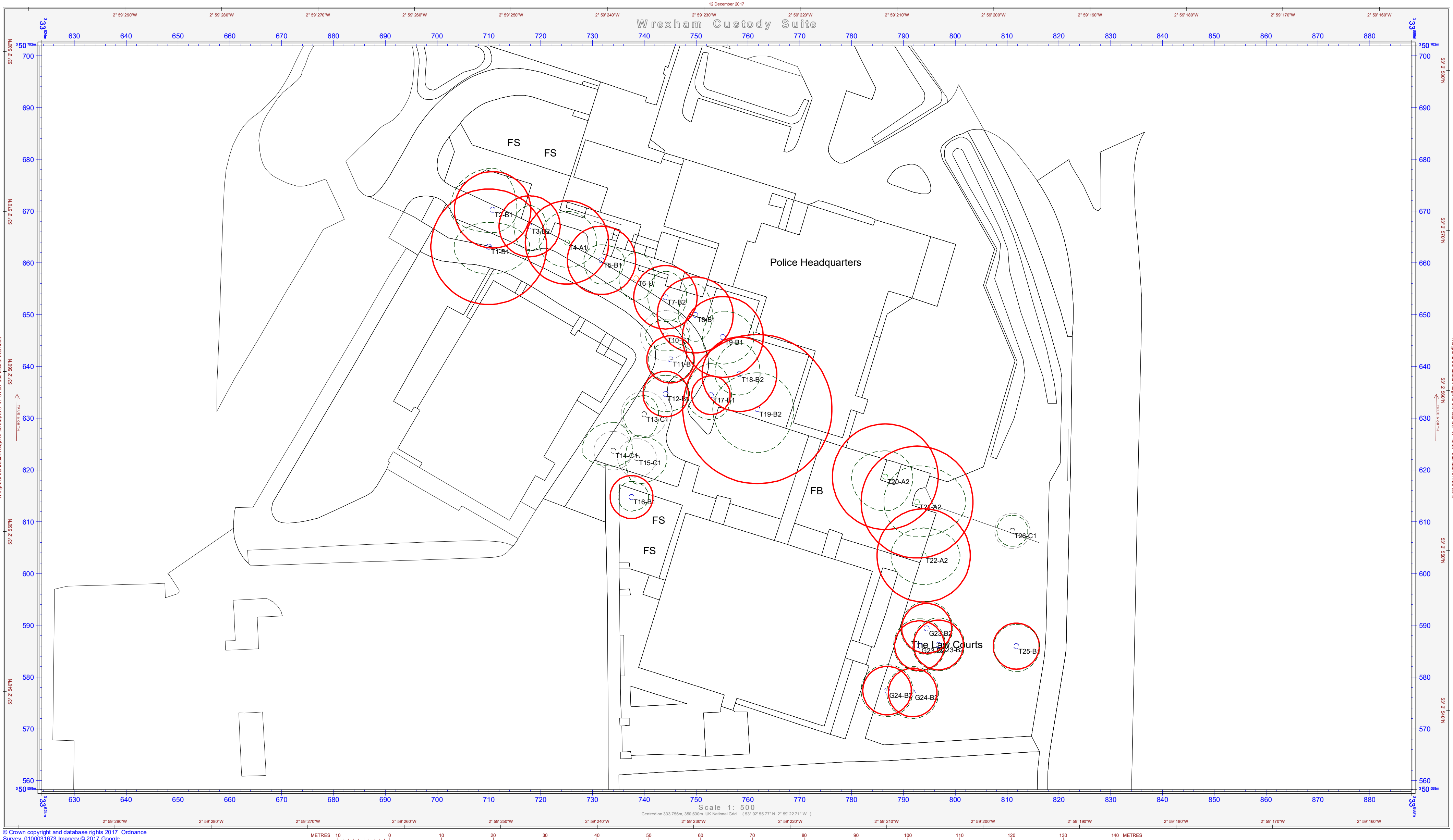
Category C: Trees of low quality with an estimated lifespan of at least 10 years or young trees with a stem diameter below 150mm.

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		



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Tree & Woodland Management Solutions

Tree Constraints Plan

Wrexham Law Courts

Wrexham

KEY

-  Tree Cat A
-  Tree Cat B
-  Tree Cat C
-  Tree Cat U
-  Canopy Spread
-  RPA
-  RPA Cat C

Drawing No: WCS/TCP/12/17/01

Drawn By: S. Shields

Scale: 1:500 @ A2

Date: 12th December 2017

Revision:

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Tree & Woodland Management Solutions

Tree Constraints Plan
Overlay
Wrexham Law Courts
Wrexham

- KEY
- Tree Cat A
 - Tree Cat B
 - Tree Cat C
 - Tree Cat U
 - Canopy Spread
 - RPA
 - RPA Cat C
 - New Structure

Drawing No: WCS/TCP/OL/12/17

Drawn By: S. Shields

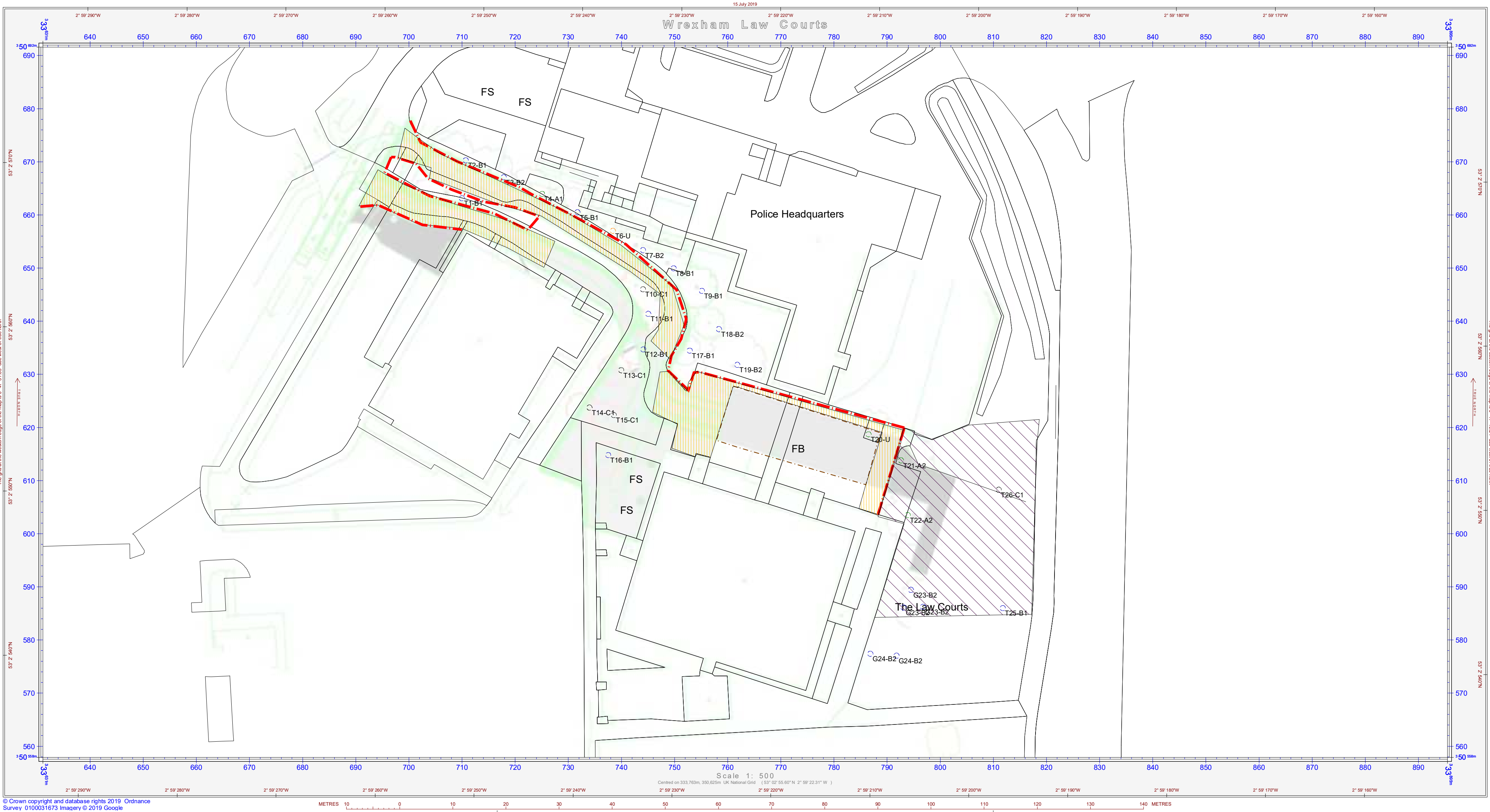
Scale: 1:500 @ A2

Date: 16th July 2019

Revision:

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Tree & Woodland Management Solutions

Tree Protection Plan

Overlay

Wrexham Law Courts

Wrexham

- KEY
- Tree Cat A
 - Tree Cat B
 - Tree Cat C
 - Tree Cat U
 - CEZ
 - Precautionary Area
 - New Structure
 - Tree Protection Fencing

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Revision: D

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