

Trees and Construction

BS5837:2012 Tree Survey, Arboricultural Implications Assessment & Method Statement

Site: Wales Schools (Argoed), Bryn Road, Mold, CH7 6RY

Ref: 20178/A1_AIA

Client: WEPCo



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Revision	Description	Date
/	/	/

1. INTRODUCTION

1.1 **Instruction:** This advice has been prepared for WEPCo (hereafter; client) and is in respect of the tree related planning considerations at Wales Schools (Argoed), Bryn Road, Mold, CH7 6RY (hereafter; site).

As the proposal relates to development works at site, the advice herein is produced in accordance with the British Standard 5837 : 2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (hereafter; BS5837).

1.2 **BS5837:** The scope of BS5837 is to provide guidance on how trees and other vegetation can be integrated into construction and development design schemes. The overall aim is to ensure the protection of amenity by trees which are appropriate for retention.

1.3 **Scope of this advice:** This advice has been produced in accordance with BS5837 and the objective of this report is to assess and provide recommendations regarding the proposal's potential impact on trees and vice versa.

1.4 Following instruction the consultant surveyed the site on the 11th June 2020 where a site walkover and BS5837 tree survey were carried out; all trees on site and around the application boundary were surveyed from ground level and plotted as either an individual or a tree group.

1.5 This advice is subject to caveat at Appendix I, outlines relevant terms and definitions at Appendix II and constitutes the findings of the preliminary site assessment and associated arboricultural recommendations.

1.6 The survey data and site observations use the supplied topographical survey to illustrate the surveyed trees in plan format as a 'Tree Constraints Plan' (hereafter; TCP).

The TCP has an overlay of the proposed scheme to enable this review. The TCP informs this assessment and is used as a base layer for the appended 'Tree Protection Plan' (hereafter; TPP); the TCP, tree survey data table and TPP are at Appendix III.

2. SITE INFORMATION & TREE ASSESSMENT

- 2.1 The site currently comprises an existing school site with associated access, parking and hard and soft landscaping.
- 2.2 **Proposal:** It is understood that a proposed scheme involves the demolition of the existing school and construction of a new school at site. This will include a general scheme of landscaping, parking provision and access improvement onto and around the site (see; TCP).
- 2.3 The site requires consideration from an arboricultural perspective due to the presence of trees on and around the site; these trees are deemed to be within impacting distance of the existing property and/or the proposed construction area.
- 2.4 The trees -
- 2.4.1 The tree survey and assessment resulted in the BS5837 quality/retention categories of 'A - high', 'B - moderate' and 'C - low' being attributed to trees/tree groups as well as those categorised as 'U' for those dead, dying or dangerous trees needing to be removed as part of health and safety tree risk management.
- 2.4.2 The BS5837 tree survey is a means of objective assessment and reflects the trees' condition, quality contribution, remaining life expectancy and spatial considerations (stem, crown and roots). On this basis and in order to consider the trees' accurate constraints, the survey data has the crown extents for north, east, south and west, the stem diameter measurement, and the calculated root protection areas (hereafter; RPAs). Hereafter, the trees are therefore reviewed and considered on their own merits and in line with the guidance of BS5837.

3. FINDINGS & RECOMMENDATIONS

3.1 The following information, as with the prior contents of this report, should be read with the appended tree data table and tree constraints plan (20178/TCP/01).

NOTE: This information as s.3 for the '*tree survey assessment*' was provided as an informative of the arboricultural considerations and constraints to site. It is included herein for reference and context and is supplemented with a review of the scheme as the AIA (section 4) and the AMS 'considerations' (section 5).

3.2 General Considerations for Tree Retention / Removal

3.2.1 Due to the poor condition and defects noted to the 'U' category trees T5, T6, T17 and T30, and in the considerations for the site use, it is recommended that these trees be removed as part of health and safety tree risk management.

3.2.2 There are smaller scale trees and those with defects or limitations on the current amenity contribution or useful remaining life expectancy, these are categorised as 'C - low'.

Whilst it is considered that these trees should not significantly constrain or impact the viability of a scheme, they are suitable for retention as tree maturity and canopy cover to site. For any proposed tree removals, mitigation tree planting is recommended as part of a landscape scheme and can suitably replace and enhance the initial loss of canopy cover.

3.2.3 The moderate quality 'B' category trees are noted as such due to their fair future potential and/or fair current amenity contribution. These should be retained and protected where possible as part of the site's development.

Whilst the retention and protection of 'B' category trees is recommended, the removal of some may also be mitigated. Subject to supplementary details for tree selection as part of a well delivered landscape scheme, proposals of this nature may then be accepted by the council. However, this will require higher grade larger nursery planting stock than that to mitigate the removal of 'C' category trees.

3.2.4 The more notable trees, based on the individual prominence, lack of significant defects, current contribution and/or future potential, are categorised as 'A - high'. It is recommended that these trees be retained, protected and be clear of the proposal. This is best achieved by avoidance where their crowns and RPAs are accommodated in the design and layout.

3.3 Tree Protection

3.3.1 The design and layout of the site is to incorporate the essential components of retained trees (crown and rooting area) and provide a suitable level of clearance to allow for their long term safe retention, i.e. RPA protection and crown clearance as well as for any new tree(s) being planted.

3.3.2 Depending on the level of tree retention/removal, the protection methods for the retained trees is likely to vary. However, it is likely that a combination of construction restrictions be used with protective barrier fencing (to protect RPAs).

The process of site operations will be an important aspect to confirm by way of a construction layout plan, i.e. showing storage areas, parking, delivery area, access routes etc., all outside of RPAs or with a provision for ground protection. As a basis for tree protection the following points will need to be considered:

- Removal of all agreed trees and any agreed pruning works prior to works commencing by a suitably qualified arboricultural contractor;
- Induction of construction personnel regarding the exclusion of works (including access and storage) from the retained trees' RPAs;
- Secure temporary barrier fencing around the site to exclude the retained tree's crowns and RPAs from the working site;
- The storage of materials clear of all retained trees and conditions to ensure no contamination/run-off into soils in proximity to trees or on higher ground; and
- For the removal of existing structures and/or hard surfaces from RPAs the works to be undertaken separate to construction, manually and sensitively.

3.4 Further to the above information, the proposed scheme is reviewed hereafter at s.4 as an Arboricultural Implications Assessment (hereafter; AIA).

4. SCHEME / IMPLICATIONS ASSESSMENT

- 4.1 For the purpose of this assessment, the proposed site plan is used as a basis for consideration. This takes account of anticipated tree removals, tree protection options and potential alterations to account for arboricultural features; as per s.1.6 and s.2.2 herein, the TCP shows the '*proposed site plan*' as an overlay for review.
- 4.2 As per s.3.2.1, the 'U' category trees T5, T6, T17 and T30 should be removed as part of H&S tree risk management in conjunction with the proposed scheme.
- 4.3 The proposed scheme conflicts with the 'C' category trees/groups T28, T29, T31, t34, T35, T88, T89, T90, G2, G4, G5, G6, G11, G12, G13, G14 and G15. As per s.3.2.2, these are small scale trees and/or trees with defects or limitations on the current amenity contribution or useful remaining life expectancy. Hence, they should not significantly constrain nor guide the scheme. Therefore, said trees should be removed to facilitate the scheme; mitigation tree planting as part of a landscape scheme is recommended.
- 4.4 The proposed scheme conflicts with the 'B' category trees T87. Although their retention and protection of B category trees is preferable, as per s.3.2.3, the removal of said trees may be mitigated by a well delivered landscape scheme. However, a 2:1 removal to replacement ratio is recommended and higher grade larger nursery planting stock than that to mitigate the removal of 'C' category trees to provide a long term amenity enhancement.
- NOTE: The proposed site plan shows indicative new tree planting, which is considered suitable mitigation; subject to details for species, stock selection etc.
- 4.5 The proposed new access conflicts with the RPAs of the 'A' category trees T86 and T86. To minimise the impact on the RPA's and ground, the new access will need to use a 'no dig' design i.e. soil level retained, use a load bearing cellular confinement system (e.g. Cellweb/Geoweb) and preferably a permeable surface treatment.
- 4.6 The proposed footbridge transects the tree groups G7, G8 and G10. The trees and other vegetation in these groups to be cutback to allow the footbridge's installation. For any post footings, sensitive installation methods will need to be used i.e. manual excavations, retain large roots (>25mm dia.) and post footings to be polythene lined to prevent soil contamination.
- 4.7 Following the above considerations for trees and noted tree works, the trees are clear of the active construction area. However, the installation of temporary tree protection will be required to ensure no impact on trees from access, vehicles, material storage etc.
- 4.8 Further to the above, the following tree works are required prior to site works.

TREE WORK SUMMARY

NUMBER	TREE REMOVALS / PRUNING WORKS	
T5, T6, T17, T28, T29, T30, T31, T34, T35, T87, T88, T89, T90, G2, G4, G5, G6, G11, G12, G13, G14 & G15	Remove	Remove in order to facilitate and in conjunction the scheme: - to be replaced with new tree planting and site landscaping.
Retained trees		Protection by placement of fixed Heras panels around the crown/RPA extents, to have no access during construction.

- 4.9 Further to the above review and in consideration for the tree removals and need to protect retained trees, the following section contains said details as an Arboricultural Method Statement (Application Stage).

5. METHOD STATEMENT (Application Stage)

5.1 Arboricultural Construction Restrictions

5.1.1 The following restrictions are considered relevant for tree protection purposes which are illustrated on the appended Tree Protection Plan:

- a) Tree works; are to be completed prior to any and all site works: tree works not specified within the associated arboricultural method statement (or leaning against or attaching of objects to a tree) are not permitted unless agreed in writing by the council.
- b) Protective Barrier Fencing (hereafter; PBF); is to be installed around the retained trees immediately after the tree works and prior to the site works commencing.
- c) Construction Exclusion Zone (hereafter; CEZ); following the installation of PBF the fenced off section is to act as a CEZ and be supplemented with ground protection for RPA sections outside of fenced off areas as the CEZ.
- d) Material Handling; no chemicals / materials are to be transported / stored / used / mixed within exposed grounds on site; all chemical / cement storage, transport or use will be pre-prepared with impermeable liner and detail within a Construction Management Plan.
- e) Site Management; no fires are to be lit and no machinery, plant or vehicles are to be washed down within 10m of a tree's canopy, within a RPA / CEZ, and the RPA / CEZ may not be breached, i.e. no mechanical digging or scraping is permitted within a RPA / CEZ.
- f) Sensitive Landscape; only following construction completion can the PBF be removed and any remaining soft landscape works be undertaken (ground levels to be retained within RPAs and works undertaken manually with non-mechanical hand tools).

5.2 Arboricultural Site Monitoring / Supervision

5.2.1 The site should be checked by a qualified arboriculturist throughout the construction processes to ensure the tree protection measures are adhered to, thus -

- (a) pre-commencement to confirm tree removals;
- (b) after PBF installation;
- (c) during construction to ensure adherence to this AMS; and
- (d) prior to removal of site hoarding after construction completion to sign off the site for correct tree protection and planting.

5.3 Protective Barrier Fencing (PBF) Specification

5.3.1 Barrier fencing is to be installed (and signed off by way of arboricultural supervision) following the completion of the tree works. It is illustrated on the Tree Protection Plan and is to remain in situ for the entire duration of preparation/ construction processes unless otherwise agreed in writing by the council.

5.3.2 The barrier fencing is to consist of a series of Heras panels secured in place by driven scaffold posts or a scaffold frame to ensure that the fencing lines are well braced to resist impact, and site hoarding around the application boundary to prevent access to the RPA/CEZ areas around the approved works.

5.4 Ground Protection

5.4.1 In this instance, protective barrier fencing will be used with retained hard surfaces and phased works for ground protection in RPA sections outside of PBF during construction, then sensitive landscape works only once construction is complete.

5.5 Underground utilities

5.5.1 Underground utilities are to be installed as per a dedicated plan and be clear of RPA by design. Otherwise, and if RPAs cannot be avoided, the following restrictions are recommended for underground utilities within RPAs:

- Any necessary excavations to be undertaken sensitively using either a no-dig method (e.g. Air-Spade) and/or under arboricultural supervision;
- Any exposed roots shall be packed with a clean damp sand (not builders sand) and wrapped in hessian sacking to protect them;
- Small roots which are identified (those less than 25mm diameter) may be carefully pruned back with a clean sharp tree saw; and
- Larger roots which are identified (those greater than 25mm in diameter) are to be retained and protected as they may be necessary for a tree's health and stability.

5.6 Ground Works within RPAs

5.6.1 The proposed new hard surfaces and proposed footbridge are within retained trees' RPAs, and will require sensitive installation methods to minimise ground and RPA impact.

5.6.2 Any excavations within a RPA or designated CEZ (the area enclosed by PBF) must:

- Be undertaken under arboricultural supervision; and
- Use sensitive excavation techniques to protect the tree roots and their existing growing conditions i.e., for the new access in RPAs - prepare grounds manually stripping the existing soil surface and turf only, retain soil levels, use load bearing

system (Cellweb or similar), manual installations and preferably a permeable surface treatment. For the footbridge footings or posts, manual excavations, retain large roots (25mm dia.) and polythene line footings to prevent soil contamination.

5.7 Landscape Detail

5.7.1 The finer details of the site landscaping proposals are to be illustrated on a landscape plan. This is to include the exact proposals for hard and soft landscaping together with the details for any new trees' planting locations, species and stock selection, installation and maintenance; this is to be undertaken by the appointed landscape architect who will have the full support of the arboricultural consultant where required.

5.8 Report Handling

5.8.1 This report is released to the client and architect to be distributed at their discretion and the consultant is available for queries relating to this report and/or trees.

5.8.2 The proposed scheme is reviewed in respect of the arboricultural constraints and is considered to be achievable in line with the BS5837 guidance. The recommendations herein may be approved by the council as a means of authorised tree works and tree protection, for which the planning approval will be subject to a final and detailed Arboricultural Method Statement based on the approved information and other detail perhaps not available at the pre-planning approval stage, i.e. utility layout, final landscape plan, construction management plan (CMP) etc.

5.8.3 This AMS and the TPP may be approved by the council in support of the application, subject to a conditioned final AMS and TPP as a means of authorised tree protection measures; all site personnel will have access to a copy and the tree work and protection details are to be inspected as per s.5.2 for '*Arboricultural Monitoring / Supervision*'.

This concludes our advice.

Caveat

Any and all information supplied to Indigo Surveys Ltd by/on behalf of the client is assumed to be accurate unless otherwise informed. | This advice is limited to the observations made on the date of inspection as detailed herein and any deletion, editing or alteration will result in the advice being null and void in its entirety. | This advice in its entirety may be deemed null and void if remedial works are undertaken on any area of the site, on or after the date of the survey. | No liability is assumed by the author or by Indigo Surveys Ltd for any misuse, misinterpretation or misrepresentation of this advice. | This advice is not valid in adverse or unpredictable weather conditions or for any failure due to 'force majeure' or unpredictable events. | No responsibility is assumed either by the author of this advice or by Indigo Surveys Ltd for any legal matters that may arise as a consequence. | Neither the author nor Indigo Surveys Ltd will be required to attend court or give testimony as part of this agreement. | The responsibility for any works undertaken on the basis of the recommendations of this advice does not form part of this agreement.

Appendix II

Terms and Definitions

“Arboriculturist” - person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.

“Competent Person” - person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached.

“Topographical survey” - an accurately measured land survey undertaken to show all relevant existing site features. *A method of carrying out topographical surveys is given in RICS specification Surveys of land buildings and utility services at scales of 1:500 and larger.*

“BS5837 Tree survey” - should be undertaken by an arboriculturist to record information about the trees on or adjacent to a site. The results of the tree survey, including material constraints arising from existing trees that merit retention, should be used (along with any other relevant baseline data) to inform feasibility studies and design options. For this reason, the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for development.

“Tree categorisation method” - trees should be categorised in accordance with the BS5837 cascade chart by an arboriculturist. This is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.

“Root protection area (RPA)” - layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority, shown as an arboricultural constraint in m². The radius is calculated using the BS5837 calculation method. An arboriculturist may change the shape of an RPA but not reduce its area.

“Arboricultural implications assessment” - a study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

“Arboricultural method statement” - methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.

“Tree protection plan” - a scale drawing, informed by descriptive text where necessary, based upon the finalised proposals, showing trees for retention and illustrating the tree and landscape protection measures.

Appendix III

Data Table:	As appended (BS5837 Tree Survey Key & Table)
Tree Constraints Plan:	As appended (20178/TCP/01)
Tree Protection Plan:	As appended (20178/TPP/01)

TREE SURVEY IN ACCORDANCE WITH BRITISH STANDARD 5837:2012 'TREES IN RELATION TO DESIGN, DEMOLITION & CONSTRUCTION - RECOMMENDATIONS'

CLIENT: HSP Consulting Ltd

PROJECT REF: 20178

SITE: Wales Schools (Argoed) Bryn Rd, Mold CH7 6RY

CONTACT: /

SURVEY DATE: 11 June 2020

CONSULTANT: ^{AKB} Rod Benzies ND Arb BSc Forestry

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
T1	Lombardy Poplar; Populus nigra 'Italica'; Saliaceae	EM/M	11.5	1	4	1	2	270	3.2	2	0.5S	Low	20-40	Multistemmed from 1m. Part of contiguous group. Large pieces of deadwood	C	2	
T2	Lombardy Poplar; Populus nigra 'Italica'; Saliaceae	EM/M	11.5	1	3	1	2	270	3.2	2	0.5S	Low	20-40	Multistemmed from 1m. Part of contiguous group. Large pieces of deadwood. Sucker growth is occurring around the base.	C	2	
T3	Lombardy Poplar; Populus nigra 'Italica'; Saliaceae	EM/M	11.5	1	3	3	2	320	3.8	2	0.5S	Low	20-40	Multistemmed from 1m. Part of contiguous group. Large pieces of deadwood. Sucker growth is occurring around the base.	C	2	
T4	Lombardy Poplar; Populus nigra 'Italica'; Saliaceae	EM/M	11.5	1	1	3	2	270	3.2	2	0.5S	Low	20-40	Part of contiguous group. Large pieces of deadwood. Sucker growth is occurring around the base.. Multistemmed from 1m	C	2	
T5	Balsam Poplar; Populus trichocarpa; Salaceae	EM/M	8	4	2	4	4	400	4.8	2	0.5S	Low	10_20	Part of contiguous group. Large pieces of deadwood. Sucker growth is occurring around the base.. Multistemmed from 1m. Canker lesions around base. Fungal activity in southern canker	U		
T6	Horse Chestnut; Aesculus hippocastanum; Hippocastanaceae	Y	5	4	5	4	2	160	1.9	2	0.5S	Low	10_20	Part of contiguous group. Large pieces of deadwood. Sucker growth is occurring around the base.. Multistemmed from 1m. Canker lesions around base. Fungal activity in southern canker	U		

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T7	Swedish Whitebeam; Sorbus intermedia; Rosaceae	EM/M	8	2	4	2	5	330	4.0	1.5	1W	Norm	20-40	Part of contiguous group. Multistemmed from 1m. Landscape buffer planting. DBH measured from below 1.5m	C	2	
T8	Swedish Whitebeam; Sorbus intermedia; Rosaceae	EM/M	8	2	4	2	2	330	4.0	1.5	1W	Norm	20-40	Part of contiguous group. Multistemmed from 1m. Landscape buffer planting. DBH measured from below 1.5m. Multistemmed tree 2 stems	C	2	
T9	Swedish Whitebeam; Sorbus intermedia; Rosaceae	EM/M	8	2	3	4	1	250	3.0	1.5	1W	Norm	20-40	Part of contiguous group. Landscape buffer planting. DBH measured from below 1.5m. Multistemmed tree 2 stems. Multistemmed tree 3 stems	C	2	
T10	Swedish Whitebeam; Sorbus intermedia; Rosaceae	EM/M	7	2	3	4	1	250	3.0	1.5	1E	Norm	20-40	Part of contiguous group. Landscape buffer planting. DBH measured from below 1.5m. Multistemmed tree 2 stems. Multistemmed tree 3 stems. Bowed main stem	C	2	
T11	Swedish Whitebeam; Sorbus intermedia; Rosaceae	EM/M	7	4	2	3	2	270	3.2	1.5	1E	Norm	20-40	Part of contiguous group. Landscape buffer planting. DBH measured from below 1.5m. Multistemmed tree 2 stems. Multistemmed tree 3 stems. Bowed main stem	C	2	
T12	Swedish Whitebeam; Sorbus intermedia; Rosaceae	EM/M	7	4	2	2	4	300	3.6	1.5	1E	Norm	20-40	Part of contiguous group. Landscape buffer planting. DBH measured from below 1.5m. Multistemmed tree 2 stems. Multistemmed tree 3 stems. Bowed main stem	C	2	
T13	English Oak; Quercus robur; Fagaceae	Y	7	4	4	2	4	160	1.9	1.5	1NW	Norm	20-40	Part of contiguous group. Landscape buffer planting. Formative pruning required to take out included union	B	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T14	Common Ash; Fraxinus excelsior; Oleaceae	Y	5	2	3	3	4	200	2.4	1.5	1W	Norm	20-40	Part of contiguous group. Landscape buffer planting. Sparse leaf cover (can see sky through the crown)	C	2	
T15	Common Ash; Fraxinus excelsior; Oleaceae	Y/SM	8	2	3	3	4	180	2.2	1.5	1W	Norm	20-40	Part of contiguous group. Landscape buffer planting	C	2	
T16	Alder; Alnus (species); Betulaceae	Y/SM	8	2	2	2	2	180	2.2	1.5	1S	Norm	20-40	Part of contiguous group. Landscape buffer planting	C	2	
T17	Willow; Salix (species); Saliaceae	Y/SM	8	2	2	2	2	180	2.2	1.5	1S	Low	20-40	Part of contiguous group. Landscape buffer planting. Major cavity and decay in main stem	U		Fell Tree
T18	Willow; Salix (species); Saliaceae	Y/SM	6	4	5	3	3	250	3.0	1.5	1All round	Norm	20-40	Part of contiguous group. Landscape buffer planting	C	2	
T19	Willow; Salix (species); Saliaceae	Y/SM	6	2	2	4	1	100	1.2	1.5	1All round	Norm	20-40	Part of contiguous group. Landscape buffer planting. Phoenix tree with recumbent stem	C	2	
T20	Alder; Alnus (species); Betulaceae	Y/SM	5	3	3	3	3	180	2.2	1.5	1All round	Norm	20-40	Part of contiguous group. Landscape buffer planting	C	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T21	Alder; Alnus (species); Betulaceae	Y/SM	5	1	3	3	2	180	2.2	1.5	2All round	Norm	20-40	Part of contiguous group. Landscape buffer planting	C	2	
T22	Willow; Salix (species); Saliaceae	SM/EM	5	2	5	4	2	300	3.6	1.5	2All round	Norm	20-40	Part of contiguous group. Landscape buffer planting. Multistemmed tree 2 stems. DBH measured from below 1.5m. Leaning south	C	2	
T23	English Oak; Quercus robur; Fagaceae	M/OM	17	10	9	4	2	1000	12.0	4	4All round	Low	20-40	Situated in neighbouring property. Restricted access dimensions estimated. Possible veteran	A	3	
T24	Alder; Alnus (species); Betulaceae	M/OM	7	4	4	4	4	240	2.9	1.5	2All round	Norm	20-40	Landscape buffer planting. Sucker growth is occurring around the base.	C	2	
T25	Ashleaf maple; Acer negundo; Aceraceae	M	10	4	4	4	4	340	4.1	1.5	2All round	Norm	20-40	Landscape buffer planting. Bark splitting in areas on main stem. Very sparse small leaves. Large pieces of deadwood. Some crown dieback	C	2	No work. Monitor tree condition
T26	Alder; Alnus (species); Betulaceae	EM	7	4	4	3	2	260	3.1	1.5	2All round	Norm	20-40	Landscape buffer planting	C	2	
T27	Ashleaf maple; Acer negundo; Aceraceae	Y	4	1	3	3	1	110	1.3	1.5	2All round	Norm	20-40	Landscape buffer planting	C	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T28	Pine; Pinus (species); Pinaceae	EM	7	4	2	3	4	320	3.8	1.5	1.5All round	Norm	20-40	Part of contiguous group. Growth influenced by adjacent trees	C	2	
T29	Pine; Pinus (species); Pinaceae	Y	4	2	2	1	1	110	1.3	1.5	1.5All round	Norm	20-40	Part of contiguous group. Growth influenced by adjacent trees	C	2	
T30	European Larch; Larix decidua; Pinaceae	EM	4	2	2	2	2	260	3.1	1.5	1.5All round	Low	10_20	Part of contiguous group. Growth influenced by adjacent trees. Poor vigour and die back	U		Fell Tree
T31	Pine; Pinus (species); Pinaceae	Y/SM	11.5	2	2	2	2	240	2.9	1.5	1.5All round	Norm	20-40	Group grown conifer	C	2	
T32	Pine; Pinus (species); Pinaceae	M	10	5	5	4	5	520	6.2	1.5	1.5All round	Norm	20-40	Group grown conifer. Ivy on stem preventing VTA. Codominant branch structure	C	2	Remove ivy and reinspect
T33	Pine; Pinus (species); Pinaceae	M	10	1	3	4	2	440	5.3	1.5	1.5All round	Norm	20-40	Group grown conifer. Codominant branch structure	C	2	
T34	Pine; Pinus (species); Pinaceae	EM	10	2	3	2	2	280	3.4	2	2All round	Norm	20-40	Group grown conifer	C	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T35	Western Red Cedar; Thuja plicata; Cupressaceae	EM	10	2	4	3	2	440	5.3	0	0.5All round	Norm	20-40	Group grown conifer. Multistemmed over 7. Ivy on stem preventing VTA. DBH measured from below 1.5m	C	2	
T36	Sessile Oak; Quercus petraea; Fagaceae	EM	11.5	5	7	6	5	200, 420	5.6	0	1.75S	Norm	20-40	Ivy on stem preventing VTA. Codominant branch structure	B	2	
T37	English Oak; Quercus robur; Fagaceae	EM	11.5	5	5	6	5	200, 200	3.4	1.5	1.75	Norm	20-40	Multistemmed tree 2 stems. Hedgerow tree	B	2	
T38	Oak; Quercus (species); Fagacea	EM	11.5	4	5	3	5	260	3.1	1.5	0.5All round	Norm	20-40	Hedgerow tree. Ivy on stem preventing VTA	B	2	
T39	Oak; Quercus (species); Fagacea	EM	11.5	4	5	6	2	300	3.6	1.5	2All round	Norm	20-40	Hedgerow tree. Ivy on stem preventing VTA. Leaning slightly east	B	2	
T40	Oak; Quercus (species); Fagacea	M/OM	11.5	5	5	7	8	1000	12.0	1.5	2All round	Norm	20-40	Hedgerow tree. Ivy on stem preventing VTA. Leaning slightly east. Possible veteran. Low heavy branch crown structure. Sucker growth is occurring around the base.	A	3	
T41	Oak; Quercus (species); Fagacea	M	11.5	7	6	6	7	520	6.2	1.5	2All round	Norm	20-40	Ivy on stem preventing VTA. Trunk not visible	A	3	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T42	Oak; Quercus (species); Fagacea	EM	8	4	4	4	4	240	2.9	1.5	2All round	Norm	20-40	Ivy on stem preventing VTA. Trunk not visible	B	2	
T43	Oak; Quercus (species); Fagacea	EM	11.5	5	6	7	7	600	7.2	1.5	2All round	Norm	20-40	Ivy on stem preventing VTA. Trunk not visible. Hedgerow tree	A	3	
T44	Oak; Quercus (species); Fagacea	M	11.5	6	4	6	4	520	6.2	1.5	2All round	Norm	20-40	Asymmetric crown shape. Mechanical damage to trunk. Branch tears in crown. Decay in riot buttresses	B	3	
T45	Oak; Quercus (species); Fagacea	M	11.5	6	4	6	4	660	7.9	1.5	2All round	Norm	20-40	Mechanical damage to trunk. Branch tears in crown. Hedgerow tree	B	3	
T46	Oak; Quercus (species); Fagacea	M/OM	11.5	6	6	6	5	1200	14.4	1.5	2All round	Norm	20-40	Branch tears in crown. Hedgerow tree. More than likely. veteran	A	3	
T47	Oak; Quercus (species); Fagacea	M/OM	11.5	6	6	6	5	600	7.2	1.5	2All round	Norm	20-40	Hedgerow tree. Access restricted due to undergrowth, estimated dimensions. Ivy on stem preventing VTA. Low heavy branch crown structure	A	3	
T48	Oak; Quercus (species); Fagacea	M/OM	11.5	6	6	6	5	600	7.2	1.5	2All round	Norm	20-40	Hedgerow tree. Access restricted due to undergrowth, estimated dimensions. Ivy on stem preventing VTA. Low heavy branch crown structure	A	3	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T49	Oak; Quercus (species); Fagacea	M/OM	11.5	6	6	6	5	660	7.9	1.5	2All round	Norm	20-40	Hedgerow tree. Access restricted due to undergrowth, estimated dimensions. Ivy on stem preventing VTA. Low heavy branch crown structure	A	3	
T50	Oak; Quercus (species); Fagacea	M/OM	11.5	6	6	6	5	660	7.9	1.5	2All round	Norm	20-40	Hedgerow tree. Access restricted due to undergrowth, estimated dimensions. Ivy on stem preventing VTA. Low heavy branch crown structure	A	3	
T51	Oak; Quercus (species); Fagacea	M/OM	8	6	4	4	5	600	7.2	1.5	2All round	Low	<10	Hedgerow tree. Access restricted due to undergrowth, estimated dimensions. Ivy on stem preventing VTA. Partially dead some growth still at branch tips. Ecological value	U	/A3	
T52	Oak; Quercus (species); Fagacea	M/OM	10	6	6	6	6	620	7.4	2	2.5All round	Norm	40+	Seat bench round base. In play area. Cavities in old branch wounds	A	2	
T53	Common Ash; Fraxinus excelsior; Oleaceae	EM	10	4	4	4	5	320	3.8	2	2.5All round	Norm	40+	In play area. Included Union. Included union active split	B	2	
T54	English Oak; Quercus robur; Fagaceae	EM	13	5	9	7	7	600, 460	9.1	2	1.75	Norm	40+	Hedgerow tree. Restricted access dimensions estimated	A	3	
T55	Oak; Quercus (species); Fagacea	M/OM	15	6	6	6	7	620	7.4	2	2.5All round	Norm	40+	Hedgerow tree. Restricted access dimensions estimated. Ivy on stem preventing VTA	A	3	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T56	Oak; Quercus (species); Fagacea	M/OM	15	6	4	6	6	520	6.2	2	2.5All round	Norm	40+	Hedgerow tree. Restricted access dimensions estimated. Ivy on stem preventing VTA	A	3	
T57	Goat Willow; Salix capreae; Saliaceae	M	7	2	2	2	2	390	4.7	2	2.5All round	Norm	<10	Hedgerow tree. Tree has failed	U		
T58	Oak; Quercus (species); Fagacea	M	10	2	6	6	6	520	6.2	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group	B	3	
T59	Oak; Quercus (species); Fagacea	M	10	4	4	4	4	490	5.9	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated	B	3	
T60	Oak; Quercus (species); Fagacea	M	10	4	4	4	4	500	6.0	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	
T61	Oak; Quercus (species); Fagacea	M	10	4	4	4	4	520	6.2	2	2.5All round	Low	<10	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA. Crown due back significant	C	3	
T62	Oak; Quercus (species); Fagacea	M	10	4	4	4	4	520	6.2	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
T63	Oak; Quercus (species); Fagacea	M	10	4	4	4	4	440	5.3	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	
T64	Oak; Quercus (species); Fagacea	M	10	4	4	4	4	570	6.8	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	
T65	Oak; Quercus (species); Fagacea	M	10	7	7	4	4	680	8.2	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA. Multistemmed tree 2 stems	B	3	
T66	Oak; Quercus (species); Fagacea	M	10	4	7	4	4	570	6.8	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	
T67	Oak; Quercus (species); Fagacea	M	13	6	7	4	4	520	6.2	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	
T68	Oak; Quercus (species); Fagacea	M	13	6	7	4	4	570	6.8	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	
T69	Oak; Quercus (species); Fagacea	M	10	6	6	4	4	490	5.9	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T70	Oak; Quercus (species); Fagacea	M	10	6	6	4	4	520	6.2	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	
T71	Oak; Quercus (species); Fagacea	M	10	6	6	4	4	520	6.2	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	
T72	Oak; Quercus (species); Fagacea	M	10	6	6	4	4	540	6.5	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA. Hollow base	B	3	
T73	Oak; Quercus (species); Fagacea	M	10	6	6	4	4	540	6.5	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	B	3	
T74	Oak; Quercus (species); Fagacea	M	10	7	6	6	6	680	8.2	2	2.5All round	Norm	20-40	Hedgerow tree. Part of contiguous group. Restricted access dimensions estimated. Ivy on stem preventing VTA	A	3	
T75	Pine; Pinus (species); Pinaceae	M	13	4	6	2	4	550	6.6	2	4All round	Norm	20-40	Mechanical damage to base. Compaction around base	B	2	
T76	Oak; Quercus (species); Fagacea	EM	10	4	4	4	4	300	3.6	2	4All round	Norm	20-40	Mechanical damage to base. Compaction around base. Woodland tree	B	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T77	Oak; Quercus (species); Fagacea	EM	10	4	4	4	4	300	3.6	2	4All round	Norm	20-40	Compaction around base. Woodland tree	B	2	
T78	Birch; Betula (species); betulaceae	EM	13	4	4	4	4	440	5.3	2	4All round	Norm	20-40	Woodland tree. Ivy on stem preventing VTA	B	2	
T79	Oak; Quercus (species); Fagacea	M/OM	13	6	6	6	6	560	6.7	2	4All round	Norm	20-40	Hedgerow tree. Restricted access dimensions estimated, Woodland area	A	3	
T80	Oak; Quercus (species); Fagacea	M/OM	13	6	6	6	6	560	6.7	2	4All round	Norm	20-40	Hedgerow tree. Restricted access dimensions estimated, Woodland area	A	3	
T81	Oak; Quercus (species); Fagacea	M/OM	13	6	6	6	6	490	5.9	2	4All round	Norm	20-40	Hedgerow tree. Restricted access dimensions estimated, Woodland area	A	3	
T82	Oak; Quercus (species); Fagacea	M/OM	13	6	6	6	6	550	6.6	2	4All round	Norm	20-40	Hedgerow tree. Restricted access dimensions estimated, Woodland area	A	3	
T83	Oak; Quercus (species); Fagacea	M/OM	13	6	6	6	6	550	6.6	2	4All round	Norm	20-40	Hedgerow tree. Restricted access dimensions estimated, Woodland area and edge of site	A	3	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
T84	Oak; Quercus (species); Fagacea	M/OM	13	6	6	6	6	570	6.8	2	4All round	Norm	20-40	Hedgerow tree. Restricted access dimensions estimated, Woodland area	A	3	
T85	Oak; Quercus (species); Fagacea	M/OM	13	6	6	6	6	1000	12.0	2	4All round	Norm	20-40	Hedgerow tree. Restricted access dimensions estimated. Major cavity in stem. Possible veteran. Leans south, Woodland area	A	3	
T86	Oak; Quercus (species); Fagacea	M/OM	13	6	7	6	6	930	11.2	2	4All round	Norm	20-40	Hedgerow tree. Restricted access dimensions estimated. Hollow base, Woodland area	A	3	
T87	Oak; Quercus (species); Fagacea	M/OM	10	6	7	6	6	570	6.8	2	4All round	Norm	20-40	Restricted access dimensions estimated. Hedgerow tree. Possibly Multistemmed. Ivy on stem preventing VTA,	B	3	
T88	Rowan; Sorbus aucuparia; Rosaceae	M	4	3	2	2	2	260	3.1	1.5	1.5All round	Norm	20-40	Landscape buffer planting. CCTV nearby. Sucker growth is occurring around the base., Woodland area	C	1	
T89	White Poplar; Populus alba; Salicaceae	M	8	4	4	4	4	340	4.1	1.5	1.5All round	Norm	20-40	Landscape buffer planting. Ivy on stem preventing VTA. Previously Pollarded, Woodland area	C	2	
T90	White Poplar; Populus alba; Salicaceae	M	8	4	4	4	4	340	4.1	1.5	1.5All round	Norm	20-40	Landscape buffer planting. Ivy on stem preventing VTA. Previously Pollarded. Restricted access dimensions estimated, Woodland area	C	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
G1	Hawthorn; Crataegus monogyna; Rosaceae	EM/M	5	0	0	0	0	150	3.2	0	0	Norm	20-40	Screen feature hiding plant or machinery housing	C	2	
G2	Hawthorn; Crataegus monogyna; Rosaceae; Leyland Cypress; x Cupressocyparis leylandii; Cupressaceae	EM	17	0	0	0	0	260; 520	3.2	0	0	Norm	20-40	Group of conifers screen value only	C	2	
G3	Hawthorn; Crataegus monogyna; Rosaceae; Leyland Cypress; x Cupressocyparis leylandii; Cupressaceae; Leyland Cypress; Cupressocyparis leylandii ' Castlewellan Gold'; Cupressaceae	EM	17	0	0	0	0	150	3.8	0	0	Norm	20-40	Group of conifers screen value only	C	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
G4	European Larch; Larix decidua; Pinaceae	Y/SM	17	0	0	0	0	150	3.2	0	0	Dead	20-40	Groupd of dead trees	U		Fell to ground level
G5	Hawthorn; Crataegus monogyna; Rosaceae; Leyland Cypress; x Cupressocyparis leylandii; Cupressaceae; Leyland Cypress; Cupressocyparis leylandii ' Castlewellan Gold'; Cupressaceae; European Larch; Larix decidua; Pinaceae	Y	10	0	0	0	0	85	4.8	0	0	Norm	20-40	Small diffuse group	C	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
G6	Fagaceae;Hawthorn; Crataegus monogyna; Rosaceae;Common Ash; Fraxinus excelsior; Oleaceae	M/EM;E	11.5	0	0	0	0	180	1.9	0	0	Norm	20-40	Overgrown hedge feature with tree standards. No access available at time os survey	C	2	
G7	English Oak; Quercus robur; Fagaceae;Hawthorn; Crataegus monogyna; Rosaceae;Common Hazel; Corylus avellana; Betulaceae;Goat Willow; Salix capreae; Saliaceae	M	10	0	0	0	0	680	4.0	0	0	Norm	20-40	Old field boundary hedgerow occasionally managed. Follows the bed of a ditch/ watercouse	B	2	
G8	English Oak; Quercus robur; Fagaceae;Hawthorn; Crataegus monogyna; Rosaceae;Common Hazel; Corylus avellana; Betulaceae;Goat Willow; Salix capreae; Saliaceae;Common Hazel; Corylus avellana; Betulaceae;Hawthorn; Crataegus monogyna; Rosaceae	M	10	0	0	0	0	680	4.0	0	0	Norm	20-40	Field boundary hedge occasionally managed.	B	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m)				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
				N	S	E	W										
G9	Hawthorn; Crataegus monogyna; Rosaceae	EM	13	0	0	0	0	440	3.0	0	0	Norm	20-40	Part of a new woodland area frequent access around the base of some trees.	B	2	
G10	Oak; Quercus (species); Fagaceae	EM	13	0	0	0	0	440	3.0	0	0	Norm	20-40	Woodland area used as play area/den	B	2	
G11	Hawthorn; Crataegus monogyna; Rosaceae, Malus, Apple	M	4	0	0	0	0	100	3.2	0	0	Norm	20-40	Dense scrubby group. Screening plant machinery housing box	C	2	
G12	Hawthorn; Crataegus monogyna; Rosaceae, Malus, Apple	M	4	0	0	0	0	100	3.6	0	0	Norm	20-40	Scrubby group	C	2	
G13	Hawthorn; Crataegus monogyna; Rosaceae, Malus, Apple	M	4	0	0	0	0	100	1.9	0	0	Norm	20-40	Scrubby group	C	2	
G14	Poplar, Populus (species) Salaceae	Y	4	0	0	0	0	60	2.4	0	0	Norm	20-40	Self seeded sapplings forming a scrubby group	C	2	
G15	Poplar, Populus (species) Salaceae	Y	4	0	0	0	0	60	2.2	0	0	Norm	20-40	Self seeded sapplings forming a scrubby group	C	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
G16	Poplar, <i>Populus (species) Salaceae</i> Leyland Cypress, x Cupressocyparis leylandii, Cupressaceae	Y	20	0	0	0	0	500	2.2	0	0	Norm	20-40	Appears to be an entrance off site feature which encroaches onto the site. Very imposing feature	C	2	
G17	Lonicera nitida	M	1.5	0	0	0	0	100	2.2	0	0	Norm	20-40	Managed hedge feature	C	2	
G18	Hawthorn; <i>Crataegus monogyna</i> ; Rosaceae	M	1.5	0	0	0	0	100	3.0	0	0	Norm	20-40	Managed hedge feature	C	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W	STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.	MANAGEMENT
TREE SURVEY 'KEY' - BRITISH STANDARD 5837:2012 'TREES IN RELATION TO DESIGN, DEMOLITION & CONSTRUCTION - RECOMMENDATIONS'													
	TPO/CA	-	On client request: presence of Tree Preservation Orders (TPO) / site location within a Conservation Area (CA) & date checked;										
	TREE REF. #	-	Tree reference number: tag or plan number (T - individual tree, G - group of trees/shrubs, H - hedge);										
	SPECIES	-	Genus, species and/or common name;										
	AGE	-	Age classification (NP - new planting, Y - young, EM - Early-Mature, SM - semi mature, M - mature, LM - late mature, OM - over mature);										
	HEIGHT (in m)	-	Approximate height of tree in metres;										
	CANOPY (in m) N - S - E - W	-	Approximate branch spread in metres of the four principal compass points;										
	STEM (in mm)	-	Stem diameter in millimetres: measured in accordance with s.4.6 of BS5837;										
	RPA (in m)	-	Circle radius of the Root Protection Area: calculated using the stem diameter (single/multiple stem variant, as outlined within BS5837);										
	CLEARANCE (in m)	-	Crown clearance in metres above the adjacent ground level;										
	1ST BRANCH (in m)	-	Clearance in metres to first significant branch and direction of growth (where relevant);										
	VITALITY	-	Physiological condition typically gauged from canopy cover and annual extension growth (good, fair, poor, dead);										
	ESTIMATED REMAINING CONTRIBUTION	-	Approximate number of years a tree will continue to contribute without the need for oppressive arboricultural intervention, categorised in years as <10, 10-20, 20-40 and >40;										
	NOTES	-	Structural and physiological condition observations;										
	BS CAT.	-	BS5837 tree quality assessment category: resulting from structural/physiological condition and remaining contribution (approximate useful life expectancy); Standard retention category U : in such a condition that any existing value would be lost within 10 years; Standard retention category A : high quality and value, in such a condition as to be able to make substantial contribution of 40+ years; Standard retention category B : moderate quality and value, in such a condition as to make a significant contribution of 20+ years; Standard retention category C : low quality and value, currently in adequate condition to remain until new planting could be established 10+ years; Standard retention sub-category, mainly due to: 1 - Arboricultural values, 2 - Landscape values, 3 - Cultural values, including conservation;										
	MANAGEMENT	-	Preliminary management recommendations (as appropriate);										
	***	-	Within the survey schedule denotes an estimate										



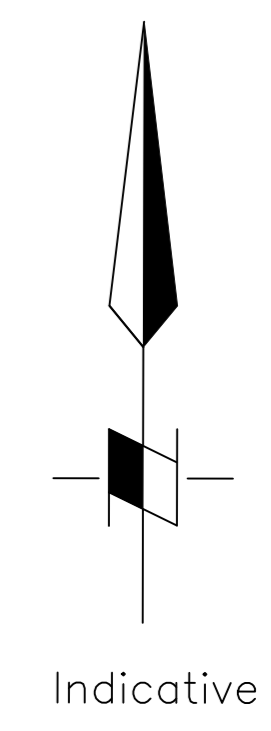
KEY

- Tree Crown Spread
- Root Protection Area (RPA)
- Tree Stem
- T1 Tree No.
- Removed Tree

Tree Condition Category

- A
- B
- C
- U

The surveyed trees are illustrated on this Constraints Plan which is prepared in accordance with British Standard BS5837: 2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'



DO NOT SCALE FROM DRAWING
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/	Proposed scheme overlay for review	TB	AT	23/06/21
REV.	DESCRIPTION	DWN	CHK'D	DATE

CLIENT
 HSP Consulting Ltd

PROJECT
 20178/A1
 Wales Schools (Argoed)
 Bryn Rd, Mold CH7 6RY

TITLE
 Tree Constraints Plan

DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
RPHB	18/06/2020	AT	18/06/2020			1-500



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Drawing Number 20178/A1/TCP/01 A0

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