

Arboricultural Implications Assessment

11 June 2011

[90785]

Revision A



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This report has been released electronically and the appendices referred to herein can be found in the annexed zip folder/s as .pdf files. If this report is released in hard copy the appendices will be bound into the back of this report. Plans may be annexed separately as A1 or A0 copies where a bound-in A3 copy is not appropriate.

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Executive Summary

We are instructed by our client to produce an Arboricultural Implications Assessment for proposed development at Llwyn Onn Water Treatment Plant on individual trees and groups of trees within and adjacent to the site.

Trees within and adjacent to the site have been surveyed by Arbtech Consulting Ltd using a methodology guided by British Standard 5837:2005 'Trees in relation to construction – Recommendations' ("BS5837").

Checklist for Submission to Local Planning Authority

Tree survey	☒
Tree constraints plan	☒
Arboricultural implications assessment	☒
Arboricultural method statement	☒
Tree protection plan	☒

This report and its appendices follow a strategy for arboricultural appraisal intended to assist developers in designing tree protection measures to mitigate any impact where applicable. This revised version takes our clients landscape mitigation proposal plan into consideration. The layout has changed significantly from the indicative layout plan the first version of this report was based on.

It is the conclusion of this report that there may be some short to medium impact from the loss of fourteen category B trees. However, we are informed there is no satisfactory alternative to the development, and extensive landscaping measures are proposed. Furthermore, the loss of trees is unlikely to have a significant impact on the wider landscape. Provided our recommendations are followed and the landscape proposals are carried out, we consider that the scheme will be beneficial to wildlife and the landscape in the long-term.

General Information

Client: Dee Valley Water

Site: Llwyn Onn Water Treatment Plant

Brief proposal description: Construction of new water treatment building

Planning application reference: N/A

Documents referred to:

Document	Reference
Landscape Mitigation Proposals Plan	10 067 0004 Revision P3
British Standard 5837:2005	"BS5837"

*Note – There is some ambiguity in the plans provided and therefore the actual impact may vary slightly from that described. Best endeavors have been made to be accurate. Where there was doubt the assessment has attempted to go beyond what the actual impact may be.

Tree Survey

Survey: Rod Benzie and Alan Thompson are arboricultural surveyors for Arbtech Consulting Ltd. On 18/07/2010 and 24/05/2011 BS5837 they carried out surveys of the trees within impacting distance of the site, and these are appended to this report together with the corresponding Tree Constraints Plans.

Limitations: The survey was made at ground level using visual observation only. Detailed examinations, such as climbing inspections and decay detection equipment were not employed, though may form part of the survey's management recommendations. Measurements were taken using specialist tapes, laser and GPS devices. Where this was not possible, measurements are estimated.

Scope: Pre-development tree surveys make arboricultural management recommendations based exclusively upon the individual tree or group of trees condition relative to their present context (*i.e. not in relation to the proposed development*).

Land use: The site is currently a water treatment plant.

Locality: The site sits just outside of Wrexham. The landscape is semi-rural with woodland, scattered trees and groups of trees are also a key component of the local landscape.

Relative amenity value: The majority of trees surveyed were category B or C with few category A or R trees. Where C category trees are growing in groups or woodlands, their collective value outweighs their individual value.

Condition, age and species diversity: There is a broad range of age class and size of tree on the site. There is a variety of native and naturalized species, and relatively few exotics.

Status: No statutory protection check has been performed.



Further information: A full schedule and plans including the survey data of all individual trees and groups of trees surveyed can be found at Appendices I - IV. Our client's landscape mitigation plan is at Appendix V.

Arboricultural Implications Assessment

There are a number of issues to be addressed in an arboricultural implications assessment, and broadly these are as follows –

- The effect and extent of the proposed development within root protection areas of retained trees;
- The potential conflicts of the proposed development with canopies of retained trees; and
- The likelihood and reasonableness of any future remedial works to retained trees, beyond that which would have been scheduled in the course of ordinary management.

Development Background

There are several structures on the site including treatment and storage buildings. There are also sludge lagoons and storage reservoirs. The access is along a driveway off Cefn Drive.

Special Note: One of the three exemptions of a tree preservation order is detailed planning consent. Further, BS5837 does not take account of statutory protection in its survey criteria weighting. For these reasons, no distinction will be drawn between trees with and/or without statutory protection.

Proposed Development

The proposed development can be broken down into 2 components, the temporary access road and the new buildings. The arboricultural impact of each is described below. The majority of trees on site will not be affected by development. All other retained trees must have as much of their canopy and Root Protection Areas fenced off as possible where they are near construction works. However, due to the size of the site it may not be necessary to protect all trees.

Construction of the Temporary access Road

A number of category C trees will require removal to install the temporary access road, namely T5 - T7, T15, T10, T16 - T24, T38 and T39.

This will have an impact on the edge of woodland to the north of the site. No Category A trees are affected and only one Category B tree (T94) could be harmed due to incursion into the Root Protection Area. However, with an appropriate design and Arboricultural Method Statement for its installation, the impact on this tree can be mitigated.

It will be necessary to protect the roots of trees T8, T9, T12, T13, T14, T10, T11, T25, T26, T27, T28, T29, T30, T31, T33 and T95. It is likely that root protection areas of these trees will extend beyond the tree protective fencing and therefore there is scope for damage to these trees. It may also be necessary to prune these trees in order to install tree protective fencing. Ground protection must be installed where there is any incursion of the development footprint into any root protection area as indicated on the Tree Constraints Plan.

Construction of the new buildings to the South of the Site

This marginally impacts on the crown and Root Protection Areas of T4, T132, and T134 — all category C trees, and Category B trees T137 and T160. Any harmful impact is likely to be very minor, and can be mitigated with a mix of minor pruning, specially engineered foundations, protective barrier fencing and ground protection where access is required into the Root Protection Area.

Our client is proposing to remove trees T110 – T129 to facilitate construction. Of these all are Category B, except for T112, T113, T123, T125, T127 and T129, which are category C.

Retained trees adjacent to the development will require protection with a mix of ground protection where access is required to Root Protection Areas, but where possible, the whole of the Root Protection Area should be fenced off in accordance with BS 5837 “Trees in Relation to Construction”

Development Footprint & Loss of Trees

This proposal requires the loss of fourteen Category B trees. BS 5837 requires retention of Category B trees where possible. Our client has informed us that there is no

satisfactory alternative to the proposed layout, and therefore the number of trees requiring removal cannot be avoided. In total 36 trees require removal.

Landscape Mitigation Proposals

Our client is proposing extensive landscaping measures to mitigate the impact of the development. Broadly these measures include:

- Meadow Planting
- Shelterbelt Planting

The exact number of trees to be established is unclear from the plan. Numerous areas of planting are indicated, with trees at 1m spacing. It is clear that the ratio of new trees to ones removed is far in excess of two for one. In the long term the proposed landscaping will become a more effective screen to the current and proposed development than the existing landscaping. The species choice is native, which is appropriate for the site and purpose of the planting.

The colours of the largest building proposed will be olive green / brown to help it blend in to the surroundings.

Recommendations

In our experience it is likely that in order to achieve planning permission the Local Planning Authority will require a Tree Protection Plan and Arboricultural Method Statements in accordance with BS5837 that address the potential arboricultural impact highlighted in this report.

The Landscape Mitigation Proposals Plan was produced after the original version of this report that was based on an outline proposal. This revised version includes this latest plan in Appendix V. As a result, we have re-assessed the impact with this more accurate data and amended this report accordingly. However, prior to submission of the Landscape Mitigation Plan to the Local Planning Authority, it will be necessary to bring it up to date with this report. The plan should therefore be amended to show trees T18, T19, T22, T23 and T24 to be removed.

Consideration should be given to the potential for impact on protected wildlife such as nesting birds or bats to be present in trees to be pruned or removed. Before carrying out any tree works, it is recommended that a basic ecological survey is carried out.

Document Production, Approval and Distribution Record

Project reference number **90785**

Status	Issue #	Editor	Position	Date
Draft	1.0	Daniel Simpson	Arboricultural Consultant	11/06/2011
Final	2.0	Nick Watkins	Project Manager	12/06/2011

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Survey schedule (Appendix I)

Tree survey field data compliant to British Standard 5837:2005

Date/s of survey Start 18/07/2011 Finish 18/07/2011

Survey undertaken Contract 90785 Site Llywn Onn Water Treatment Works

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Item ref	Species	Age	Vitality	BS Cat	BS Cat	Clr	Height	DBH	N	S	E	W	Notes	Mgt reco's	
T1	Sycamore, <i>Acer psuedoplatanus</i> , <i>Aceraceae</i>	M	Norm	B		1	1	14	575	5	5	6	6	The tree is situated within a neighbouring property therefore unable to get access to the base of the tree. The tree bifurcates at 1.5m or below. There are weak or included unions in the tree structure. The DBH was measured at lower than breast height.	
T2	Wild Cherry, <i>Prunus avium</i> , <i>Rosaceae</i>	EM	Norm	C		2	0.5	13	500	6	4	4	4.5		
T3	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C		1	0	8	250	5	4	3	3		
T4	Wild Cherry, <i>Prunus avium</i> , <i>Rosaceae</i>	EM	Norm	C		1	1	11	450	6	5	3	5		
T5	Scots Pine, <i>Pinus sylvestris</i> , <i>Pinaceae</i>	EM	Norm	C		1	1.5	9	290	2	4.5	5	4.5		
T6	Common Beech, <i>Fagus sylvatica</i> , <i>Fagaceae</i>	Y	Norm	C		2	1	8	290	4	3	4	4	The tree bifurcates at 1.5m or below. There are weak or included unions in the tree structure.	
T7	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C		3	1	6	150	2	1	2	0.5	The tree has an asymmetric unbalanced crown. The tree is suppressed by neighbouring trees.	

T8	Common Beech, <i>Fagus sylvatica</i> , <i>Fagaceae</i>	Y	Norm	C	2	0	6	240	4	3	4	3	The tree has an asymmetric unbalanced crown. There is evidence of damage caused by squirrels. The DBH was measured at lower than breast height.
T9	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	3	0	7	175	3	1.5	0	2.5	The tree has an asymmetric unbalanced crown. The tree is suppressed by neighbouring trees.
T10	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	2	1	8	200	4	3	4	3	The tree has an asymmetric unbalanced crown. The tree has an old healed basal wound. There is minor dead wood present
T11	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Low	C	3	1	7	100	1	1.5	1	1	The tree is suppressed by neighbouring trees.
T12	Common Beech, <i>Fagus sylvatica</i> , <i>Fagaceae</i>	Y	Norm	C	2	0.5	7	240	4	4.5	3.5	3	The tree bifurcates at 1.5m or below. There is evidence of some damage to the tree caused by squirrels
T13	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Low	C	3	4	7	100	2	2	1.5	1.5	The tree is suppressed by neighbouring trees.
T14	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Low	C	2	1.5	7	150	4	1	1.5	2	The tree has an asymmetric unbalanced crown
T15	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	1	1.5	8	275	3	6	3	5	The tree is a dominant tree within its woodland setting.
T16	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Low	C	3	1	4	100	1	3	0.5	1	The tree is suppressed by neighbouring trees.

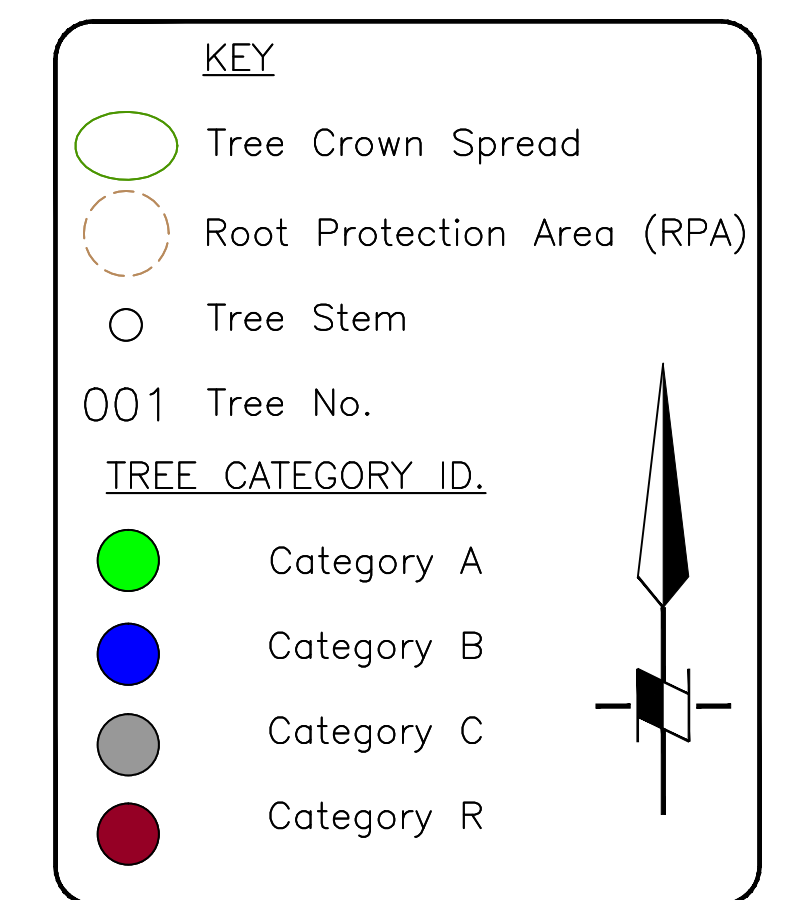
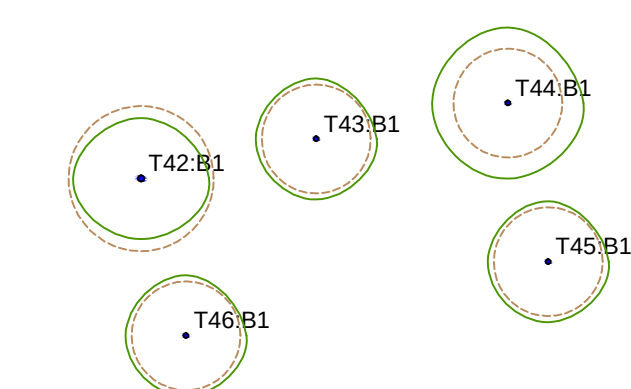
T17	Common Beech, <i>Fagus sylvatica</i> , <i>Fagaceae</i>	Y	Norm	C	2	1	7	240	4	5	3	2.5	There is evidence of some damage to the tree caused by squirrels. The tree bifurcates at 1.5m to 3m. The tree has a slightly bowed stem. The tree is a dominant tree within its woodland setting. There is minor dead wood present. The tree is a dominant tree within its woodland setting.
T18	Scots Pine, <i>Pinus sylvestris</i> , <i>Pinaceae</i>	Y	Low	C	1	1.5	8	290	3	3	3	2	
T19	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	1	1.5	9	300	4	3	3	3	
T20	Common Beech, <i>Fagus sylvatica</i> , <i>Fagaceae</i>	Y	Norm	C	2	0	7	300	6	5	4	4.5	There is evidence of some damage to the tree caused by squirrels. The tree bifurcates at 1.5m or below. The DBH was measured at lower than breast height. The tree is suppressed by neighbouring trees.
T21	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Low	C	3	0.5	7	100	1	3	2	2	
T22	Common Beech, <i>Fagus sylvatica</i> , <i>Fagaceae</i>	Y	Norm	C	2	0.5	9	225	3	4	2.5	3	The tree bifurcates at 1.5m to 3m. There are weak or included unions in the tree structure. The tree is a co-dominant tree within its woodland setting.
T23	Scots Pine, <i>Pinus sylvestris</i> , <i>Pinaceae</i>	Y	Norm	C	1	0.5	8	375	3	4	4	3	The tree is a dominant tree within its woodland setting.

T24	Common Beech, <i>Fagus sylvatica</i> , <i>Fagaceae</i>	Y	Norm	C	2	0.5	9	300	3	2	2.5	3	The tree is a co-dominant tree within its woodland setting.. There is evidence of some damage to the tree caused by squirrels. There are weak or included unions in the tree structure. The DBH was measured at lower than breast height.
T25	Scots Pine, <i>Pinus sylvestris</i> , <i>Pinaceae</i>	Y	Norm	C	1	1	8	275	4	2.5	3	3	The tree is a dominant tree within its woodland setting. The tree is a sub-dominant tree within its woodland setting.
T26	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	2	1	8	150	4	2.5	2.5	1	The tree is suppressed by neighbouring trees. The tree is a dominant tree within its woodland setting.
T27	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Low	C	3	1	5	100	2	1.5	1.5	1	The tree has a slightly bowed stem
T28	Scots Pine, <i>Pinus sylvestris</i> , <i>Pinaceae</i>	EM	Norm	C	1	1	9	325	3	5	6	5	The tree has an asymmetric unbalanced crown. The tree is a sub-dominant tree within its woodland setting.
T29	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	2	1	7	200	0	5	3	2.5	The tree has an asymmetric unbalanced crown. The tree is a sub-dominant tree within its woodland setting.
T30	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	2	0.5	8	200	1	4.5	2.5	3.5	The tree has a slightly bowed stem. The tree is a co-dominant tree within its woodland setting.
T31	Scots Pine, <i>Pinus sylvestris</i> , <i>Pinaceae</i>	Y	Norm	C	2	1	8	300	9	2	2.5	3	

T32	Scots Pine, <i>Pinus sylvestris</i> , <i>Pinaceae</i>	M	Norm	C	1	1	9	350	6	4.5	5	4	Dominant tree with The tree is a co-dominant tree within its woodland setting.
T33	Scots Pine, <i>Pinus sylvestris</i> , <i>Pinaceae</i>	Y	Norm	C	1	1.5	9	325	3	3	2	2	The tree is a dominant tree within its woodland setting.
T34	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	1	1.5	9	240	3	4	2	2.5	The tree is a dominant tree within its woodland setting. The tree is a sub-dominant tree within its woodland
T35	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	2	1	6	175	1	4	2.5	2	setting. The tree is suppressed by neighbouring trees. There is evidence of some damage to the tree caused by
T36	Common Beech, <i>Fagus sylvatica</i> , <i>Fagaceae</i>	Y	Low	C	3	0.5	6	125	1	1.5	1	1	squirrels The tree is a sub-dominant tree within its woodland
T37	English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	3	1	8	150	2	1.5	1	2	setting.
T38	Leyland Cypress, <i>Cupressocyparis leylandii</i> ' Castlewellan Gold', <i>Cupressaceae</i>	EM	Norm	C	2	0	11	625	3	3.5	2.5	3.5	The tree bifurcates at 1.5m or below. The DBH was measured at lower than
T39	Leyland Cypress, <i>Cupressocyparis leylandii</i> ' Castlewellan Gold', <i>Cupressaceae</i>	EM	Norm	C	2	1	12	700	3	2	3	4	breast height. This tree has suffered a catertophic stem split resulting a major split tear
T40	Leyland Cypress, x <i>Cupressocyparis leylandii</i> , <i>Cupressaceae</i>	M	Norm	R		0	12	900	3	3.5	2	3	of the main trunk Fell Tree

T41	Sycamore, <i>Acer psuedoplatanus</i> , <i>Aceraceae</i>	M	Norm	B	1	3	12	400	5	5	5	4	It was observed that there was some suckering at the base of the tree. There are telecoms wires in the crown. There are weak or included unions in the tree structure. The tree bifurcates at 1.5m
T42	Small Leaved Lime, <i>Tilia cordata</i> , <i>Tilaceae</i>	EM	Norm	B	1	1.5	11	400	4	4	4.5	4.5	to 3m
T43	Small Leaved Lime, <i>Tilia cordata</i> , <i>Tilaceae</i>	EM	Norm	B	1	2	9	300	4	4	4	4	
T44	Small Leaved Lime, <i>Tilia cordata</i> , <i>Tilaceae</i>	EM	Norm	B	1	2	10	300	5	5	5	5	There are weak or included unions in the tree structure.
T45	Small Leaved Lime, <i>Tilia cordata</i> , <i>Tilaceae</i>	EM	Norm	B	1	2	9	300	4	4	4	4	There are weak or included unions in the tree structure.
T46	Small Leaved Lime, <i>Tilia cordata</i> , <i>Tilaceae</i>	EM	Norm	B	1	2	9	300	4	4	4	4	There are weak or included unions in the tree structure.
T47	Small Leaved Lime, <i>Tilia cordata</i> , <i>Tilaceae</i>	EM	Norm	B	1	0	8	300	5	4.5	4.5	4.5	
G1	Wild Cherry, <i>Prunus avium</i> , <i>Rosaceae</i> ; Common Ash, <i>Fraxinus excelsior</i> , <i>Oleaceae</i> ; English Oak, <i>Quercus robur</i> , <i>Fagaceae</i>	Y	Norm	C	2	0	8	200	0	0	0	0	This is a group of 8 young planted trees. The maximum DBH is 200mm
G2	Common Beech, <i>Fagus sylvatica</i> , <i>Fagaceae</i> ; English Oak, <i>Quercus robur</i> , <i>Fagaceae</i> ; Hawthorn, <i>Crataegus monogyna</i> , <i>Rosaceae</i> ; Scots Pine, <i>Pinus sylvestris</i> , <i>Pinaceae</i> . This an area of young woodland	Y	Norm	B	2	0	8	200	0	0	0	0	The tree was multistemmed and the maximum DBH is 200mm.

G3	Common Beech, <i>Fagus sylvatica</i> , <i>Fagaceae</i> ; English Oak, <i>Quercus robur</i> , <i>Fagaceae</i> ; Hawthorn, <i>Crataegus monogyna</i> , <i>Rosaceae</i> ; Scots Pine, <i>Pinus sylvestris</i> , <i>Pinaceae</i>	Y	Norm	B	2	0	9	350	0	0	0	The tree was multistemmed and the maximum DBH is 350mm.
G4	Leyland Cypress, <i>Cupressocyparis leylandii</i> ' Castlewellan Gold', <i>Cupressaceae</i>	EM	Norm	C	2	0	11	800	0	0	0	The tree bifurcates at 1.5m or below. There are 2 trees. The DBH was measured at lower than breast height.
G5 Pit	Leyland Cypress, x <i>Cupressocyparis leylandii</i> , <i>Cupressaceae</i> Location of deep excavation	EM	Norm	C	3	0	8	650	0	0	0	



REV.	DESCRIPTION	DWN	CHK'D	DATE		
THIS DRAWING IS CONFIDENTIAL AND MUST NOT BE REPRODUCED WITHOUT THE CONSENT OF ARBTECH CONSULTING LIMITED.						
CLIENT Black and Veatch Ltd						
PROJECT 90785 Llwyn Onn Water Treatment Site, Avenbury, Wrexham LL13						
TITLE Tree Constraints Plan (TCP)						
DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
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Drawing Number						A0
TCP - 01						REV.

Client: Black and Veatch		BS 5837:2005 Tree Survey								Arbtech Consulting	
Project: Llywnn Onn, Water Treatment Works										Murlain House	
Survey Date: 24/05/2011 - 25/05/2011										Union Street	
Surveyor: Alan Thompson										Chester	
										Cheshire	
										CH1 1QP	
										Phone: 08450 176 950	
Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m ²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations	Cat ECB
				Spread (m)	Clear (m)					Survey Comment	
G12	Common Holly <i>Ilex aquifolium</i>	8	250	N E S W	6 6 6 6	SM	A: 19.6 R: 2.49	Fair	C: Poor S: Poor B: Poor	See Comment :: Unspecified 4 x Holly and 1 x Sycamore, all wit extensive squirrel damage, monitor condition.	C.2
T49	Common Hawthorn <i>Crataegus monogyna</i>	5	370	N E S W	2 2 2 2	M	A: 43 R: 3.69	Good	C: Good S: Good B: Good		B.2 20 to 40 yrs
T50	Common Hawthorn <i>Crataegus monogyna</i>	5	380	N E S W	2 2 2 2	M	A: 45.4 R: 3.8	Good	C: Good S: Good B: Good		B.2 20 to 40 yrs
T51	Common Hawthorn <i>Crataegus monogyna</i>	5	350	N E S W	2 2 2 2	M	A: 38.5 R: 3.5	Good	C: Good S: Good B: Good		B.2 20 to 40 yrs
T52	Common Hawthorn <i>Crataegus monogyna</i>	6	350	N E S W	3 2 2 2	M	A: 55.4 R: 4.19	Good	C: Good S: Good B: Good		B.2 20 to 40 yrs
T53	Common Hawthorn <i>Crataegus monogyna</i>	5	380	N E S W	2 2 2 2	M	A: 45.4 R: 3.8	Good	C: Good S: Good B: Good		B.2 20 to 40 yrs
Age Classifications:		N Newly planted	M Mature	Condition:		C Crown					
		Y Young	OM Over Mature			S Stem					
		SM Semi-mature	D Dead			B Basal area					

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T54	Common Hawthorn <i>Crataegus monogyna</i>	4	290	N E S W	2 1 2 2	M	A: 26.4 R: 2.89	Good	C: Good S: Good B: Good			B.2 20 to 40 yrs
T55	Common Oak <i>Quercus robur</i>	15	850	N E S W	6 7 6 6	M	A: 326.9 R: 10.2	Good	C: Good S: Good B: Good	Remove :: Minor dead wood		A.1 >40 yrs
T56	Common Hawthorn <i>Crataegus monogyna</i>	4	260	N E S W	2 2 2 2	M	A: 21.2 R: 2.59	Good	C: Good S: Good B: Good			B.2 20 to 40 yrs
T57	Common Oak <i>Quercus robur</i>	12	700	N E S W	6 6 6 6	M	A: 221.7 R: 8.4	Good	C: Good S: Fair B: Fair	Remove :: Ivy Remove wire fencing nailee to stem		A.1.2 >40 yrs
T58	Common Oak <i>Quercus robur</i>	5	140	N E S W	1.5 1.5 1.5 1.5	Y	A: 8.9 R: 1.68	Good	C: Good S: Good B: Good			C.1 >40 yrs
T59	Sycamore <i>Acer pseudoplatanus</i>	6	140	N E S W	2 2 2 2	Y	A: 8.9 R: 1.68	Good	C: Good S: Good B: Good			C.1 >40 yrs
T60	Common Oak <i>Quercus robur</i>	7	180	N E S W	2 2 2 2	Y	A: 14.7 R: 2.16	Good	C: Good S: Good B: Good			B.1 >40 yrs
T61	Wild Cherry <i>Prunus avium</i>	9	220	N E S W	3.5 3 3 3.5	SM	A: 21.9 R: 2.64	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1 20 to 40 yrs
Age Classifications: N Newly planted Y Young SM Semi-mature M Mature OM Over Mature D Dead Condition: C Crown S Stem B Basal area												

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T62	Common Hawthorn <i>Crataegus monogyna</i>	7	150	N E S W	2 1.5 2 2	SM	A: 10.2 R: 1.8	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 20 to 40 yrs
T63	Common Ash <i>Fraxinus excelsior</i>	7	170	N E S W	2 1 2 2	Y	A: 13.1 R: 2.04	Good	C: Good S: Good B:	No action :: Unspecified		B.2 >40 yrs
T64	Common Ash <i>Fraxinus excelsior</i>	23	890	N E S W	7 6 8 8	M	A: 358.4 R: 10.68	Good	C: Good S: Good B: Good	No action :: Unspecified		A.1.2 >40 yrs
T65	Common Beech <i>Fagus sylvatica</i>	19	790	N E S W	8 6 9 8	M	A: 282.4 R: 9.48	Good	C: Good S: Good B: Good	No action :: Unspecified		A.1.2 20 to 40 yrs
T66	Common Beech <i>Fagus sylvatica</i>	22	830	N E S W	9 8 9 8	M	A: 311.7 R: 9.96	Good	C: Good S: Good B: Good	No action :: Unspecified		A.1.2 20 to 40 yrs
T67	Common Hawthorn <i>Crataegus monogyna</i>	7	320	N E S W	3 4 4 4	M	A: 46.3 R: 3.83	Fair	C: Good S: Fair B: Fair	See Comment :: Unspecified Some decay in stem, monitor.		C.1.3 20 to 40 yrs
T68	Common Holly <i>Ilex aquifolium</i>	9	470	N E S W	5 4 5 5	OM	A: 69.4 R: 4.7	Fair	C: Good S: Fair B: Fair	See Comment :: Unspecified Some decay in stem, monitor.		C.1.3 10 to 20 yrs
T69	Sycamore <i>Acer pseudoplatanus</i>	17	800	N E S W	7 7 7 7	M	A: 289.6 R: 9.6	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
Age Classifications:		N Newly planted Y Young SM Semi-mature	M Mature OM Over Mature D Dead	Condition:		C Crown S Stem B Basal area						

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T70	Common Oak <i>Quercus robur</i>	8	190	N E S W	3 3 3 3	Y	A: 16.3 R: 2.27	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1 >40 yrs
T71	Common Hazel <i>Corylus avellana</i>	6	450	N E S W	3 3 3 3	M	A: 63.6 R: 4.49	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1 20 to 40 yrs
T72	Common Beech <i>Fagus sylvatica</i>	8	260	N E S W	4 4 4 4	SM	A: 30.6 R: 3.12	Fair	C: Fair S: Fair B: Fair	See Comment :: Unspecified Extensive squirrel damage, monitor.		C.1 20 to 40 yrs
T73	Common Oak <i>Quercus robur</i>	9	235	N E S W	4 4 4 4	SM	A: 25 R: 2.82	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1 >40 yrs
T74	Common Beech <i>Fagus sylvatica</i>	8	200	N E S W	3 4 3 3	SM	A: 18.1 R: 2.4	Fair	C: Fair S: Fair B: Fair	See Comment :: Unspecified Extensive squirrel damage, monitor condition.		C.2 20 to 40 yrs
T75	Common Oak <i>Quercus robur</i>	7	170	N E S W	2 2 2 2	Y	A: 13.1 R: 2.04	Fair	C: Fair S: Fair B: Fair	See Comment :: Unspecified Extensive squirrel damage, monitor condition.		C.2 >40 yrs
T76	Sycamore <i>Acer pseudoplatanus</i>	10	200	N E S W	4 3 4 4	SM	A: 18.1 R: 2.4	Fair	C: Fair S: Fair B: Fair	See Comment :: Unspecified Extensive squirrel damage, monitor condition.		C.2 20 to 40 yrs
T77	Cupressus <i>Cupressus Unknown</i>	12	250	N E S W	3 3 3 3		A: 28.3 R: 3	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
Age Classifications:		N Newly planted Y Young SM Semi-mature	M Mature OM Over Mature D Dead	Condition:		C Crown S Stem B Basal area						

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T78	Common Beech <i>Fagus sylvatica</i>	8	260	N E S W	4 4 3 4	SM	A: 21.2 R: 2.59	Fair	C: Fair S: Fair B: Fair	See Comment :: Unspecified Extensive squirrel damage, monitor condition.	C.2 20 to 40 yrs	
T79	Common Oak <i>Quercus robur</i>	9	265	N E S W	3 4 3 3	SM	A: 31.8 R: 3.18	Fair	C: Fair S: Good B: Good	See Comment :: Unspecified Extensive squirrel damage, monitor condition.	C.2	
T80	Common Beech <i>Fagus sylvatica</i>	10	200	N E S W	3 3 3 3	SM	A: 18.1 R: 2.4	Poor	C: Fair S: Poor B: Fair	See Comment :: Unspecified Extensive squirrel damage, monitor condition.	C.2 20 to 40 yrs	
T81	Common Beech <i>Fagus sylvatica</i>	11	235	N E S W	4 3 3 3	SM	A: 25 R: 2.82	Fair	C: Good S: Fair B: Fair	See Comment :: Unspecified Squirrel damage, monitor condition.	C.2	
T82	Common Oak <i>Quercus robur</i>	11	220	N E S W	4 4 4 4	SM	A: 21.9 R: 2.64	Fair	C: Poor S: Fair B: Good	See Comment :: Unspecified Extensive squirrel damage, monitor condition.	C.2 20 to 40 yrs	
T83	Common Beech <i>Fagus sylvatica</i>	7	230	N E S W	4 4 4 4	SM	A: 23.9 R: 2.75	Poor	C: Poor S: Poor B: Good	See Comment :: Unspecified Extensive squirrel damage, monitor condition.	C.2 20 to 40 yrs	
T84	Common Oak <i>Quercus robur</i>	5	230	N E S W	3 3 3 3	SM	A: 23.9 R: 2.75	Poor	C: Poor S: Poor B: Good	Remove :: Unspecified Extensive squirrel damage, tree has lost its leader as a result.	R	
T85	Common Beech <i>Fagus sylvatica</i>	7	220	N E S W	3 4 4 4	SM	A: 21.9 R: 2.64	Poor	C: Poor S: Fair B: Fair	See Comment :: Unspecified Extensive squirrel damage , monitor condition.	C.2 20 to 40 yrs	
Age Classifications:		N Newly planted Y Young SM Semi-mature	M Mature OM Over Mature D Dead	Condition:		C Crown S Stem B Basal area						

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T86	Common Oak <i>Quercus robur</i>	11	200	N E S W	3 3 3 3	SM	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T87	Common Oak <i>Quercus robur</i>	9	175	N E S W	2 2 3 2	SM	A: 13.9 R: 2.1	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
T88	Cupressus <i>Cupressus Unknown</i>	13	320	N E S W	4 5 4 4	SM	A: 46.3 R: 3.83	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2
T89	Common Beech <i>Fagus sylvatica</i>	5	220	N E S W	3 2 2 3	SM	A: 21.9 R: 2.64	Poor	C: Poor S: Poor B: Good	Remove :: Unspecified Extensive squirrel damage, tree has lost its leader as a result.		R 20 to 40 yrs
T90	Cupressus <i>Cupressus Unknown</i>	13	260	N E S W	3 3 3 3	SM	A: 30.6 R: 3.12	Good	C: Good S: Good B: Good			B.2 >40 yrs
T91	Common Oak <i>Quercus robur</i>	5	185	N E S W	2 2 2 2	SM	A: 15.5 R: 2.22	Poor	C: Poor S: Poor B: Good	Remove :: Unspecified Extensive squirrel damage, tree has lost its leader as a result.		R >40 yrs
T92	Common Beech <i>Fagus sylvatica</i>	12	245	N E S W	4 3 3 4	SM	A: 27.2 R: 2.94	Fair	C: Good S: Fair B: Poor	See Comment :: Unspecified Extensive squirrel damage, monitor condition.		C.2
T93	Cupressus <i>Cupressus Unknown</i>	12	300	N E S W	4 3 3 3	SM	A: 40.7 R: 3.59	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
Age Classifications: N Newly planted M Mature Condition: C Crown Y Young OM Over Mature S Stem SM Semi-mature D Dead B Basal area												

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T94	Cupressus <i>Cupressus Unknown</i>	8	285	N E S W	3 5 4 4	SM	A: 36.8 R: 3.42	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
T95	Common Beech <i>Fagus sylvatica</i>	10	310	N E S W	4 4 4 4	SM	A: 43.5 R: 3.72	Good	C: Fair S: Fair B: Fair	See Comment :: Unspecified Squirrel damage, monitor condition.		C.2 20 to 40 yrs
T96	Common Oak <i>Quercus robur</i>	12	350	N E S W	4 5 4 4	SM	A: 55.4 R: 4.19	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
T97	Common Beech <i>Fagus sylvatica</i>	12	335	N E S W	3 3 3 3	SM	A: 50.8 R: 4.02	Poor	C: Fair S: Fair B: Poor	See Comment :: Unspecified Extensive squirrel damage, monitor condition.		C.2 10 to 20 yrs
T98	Scots Pine <i>Pinus sylvestris</i>	13	350	N E S W	4 3 3 3	SM	A: 55.4 R: 4.19	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
T99	Scots Pine <i>Pinus sylvestris</i>	11	360	N E S W	4 4 4 4	SM	A: 58.6 R: 4.31	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
T100	Common Oak <i>Quercus robur</i>	11	265	N E S W	3 4 4 3	SM	A: 31.8 R: 3.18	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
T101	Scots Pine <i>Pinus sylvestris</i>	12	290	N E S W	4 3 4 3	SM	A: 38.1 R: 3.48	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
Age Classifications: N Newly planted Y Young SM Semi-mature M Mature OM Over Mature D Dead Condition: C Crown S Stem B Basal area												

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T102	Scots Pine <i>Pinus sylvestris</i>	13	340	N E S W	4 3 3 4	SM	A: 52.3 R: 4.08	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
T103	Scots Pine <i>Pinus sylvestris</i>	11	295	N E S	2 5 3	SM	A: 39.4 R: 3.54	Fair	C: Good S: Good B: Good	See Comment :: Unspecified Tree has strong lean, monitor condition.		B.2 20 to 40 yrs
T104	Sycamore <i>Acer pseudoplatanus</i>	6	260	N E S W	3 3 3 3	SM	A: 21.2 R: 2.59	Fair	C: Fair S: Fair B: Fair	See Comment :: Unspecified Squirrel damage, monitor condition		C.2 20 to 40 yrs
T105	Wild Cherry <i>Prunus avium</i>	7	190	N E S W	3 3 3 3	SM	A: 16.3 R: 2.27	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1 10 to 20 yrs
T106	Italian Alder <i>Alnus cordata</i>	5	90	N E S W	2 2 2 2	Y	A: 3.7 R: 1.08	Good	C: Good S: Good B: Good	No action :: Unspecified		C.2 >40 yrs
T107a	Italian Alder <i>Alnus cordata</i>	14	625	N E S W	5 5 5 5	M	A: 176.7 R: 7.49	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1 >40 yrs
T107b	Italian Alder <i>Alnus cordata</i>	14	640	N E S W	5 5 5 5	M	A: 185.3 R: 7.68	Fair	C: Fair S: Good B: Good	Reduce faulted limbs/stems :: Unspecified Remove :: Minor dead wood Some die-back in canopy, monitor condition.		C.2 10 to 20 yrs
T108	Italian Alder <i>Alnus cordata</i>	16	695	N E S W	5 5 5 5	M	A: 218.5 R: 8.33	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
Age Classifications: N Newly planted Y Young SM Semi-mature M Mature OM Over Mature D Dead Condition: C Crown S Stem B Basal area												

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T109	Goat Willow <i>Salix caprea</i>	7	460	N E S W	6 7 6 7	OM	A: 66.5 R: 4.6	Fair	C: Fair S: Fair B: Fair	See Comment :: Unspecified Tree is entering decline, deadwood in canopy, monitor condition.	B.2 10 to 20 yrs	
T110	Italian Alder <i>Alnus cordata</i>	15	590	N E S W	4 4 4 4	M	A: 157.5 R: 7.08	Good	C: Good S: Good B: Good	No action :: Unspecified	B.2 20 to 40 yrs	
T111	Sycamore <i>Acer pseudoplatanus</i>	13	390	N E S W	5 5 5 5	SM	A: 68.8 R: 4.67	Good	C: Fair S: Good B: Good	See Comment :: Unspecified Squirrel damage in canopy, monitor condition	B.2 20 to 40 yrs	
T112	Sycamore <i>Acer pseudoplatanus</i>	11	400	N E S W	5 5 5 5	SM	A: 72.4 R: 4.8	Fair	C: Poor S: Fair B: Good	See Comment :: Unspecified Extensive squirrel damage in canopy, monitor condition.	C.2 10 to 20 yrs	
T113	Common or Black Elder <i>Sambucas nigra</i>	5	300	N E S W	3 3 3 3	M	A: 28.3 R: 3	Good	C: Good S: Good B: Good	No action :: Unspecified	C.2 10 to 20 yrs	
T114	Common Oak <i>Quercus robur</i>	18	900	N E S W	7 8 9 9	M	A: 366.5 R: 10.8		C: Fair S: Good B: Good		B.1.2 >40 yrs	
T115	Common Hawthorn <i>Crataegus monogyna</i>	5	300	N E S W	3 2 3 3	M	A: 28.3 R: 3	Good	C: Good S: Good B: Good	No action :: Unspecified	B.2 20 to 40 yrs	
T116	Common Ash <i>Fraxinus excelsior</i>	6	150	N E S W	2 2 2 2	Y	A: 10.2 R: 1.8	Fair	C: Fair S: Good B: Good	See Comment :: Unspecified Poor leaf flush 70%, monitor condition.	C.2 20 to 40 yrs	
Age Classifications:		N Newly planted Y Young SM Semi-mature	M Mature OM Over Mature D Dead	Condition:		C Crown S Stem B Basal area						

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T117	Common Oak <i>Quercus robur</i>	6	160	N E S W	2 2 2 1	Y	A: 11.6 R: 1.92	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T118	Common Oak <i>Quercus robur</i>	5	165	N E S W	2 2 2 1	Y	A: 12.3 R: 1.97	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T119	Cork Oak <i>Quercus suber</i>	6	190	N E S W	3 2 2 2	Y	A: 16.3 R: 2.27	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T120	Wild Cherry <i>Prunus avium</i>	7	225	N E S W	3 3 3 3	SM	A: 22.9 R: 2.69	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 20 to 40 yrs
T121	Common Oak <i>Quercus robur</i>	10	255	N E S W	3 3 3 3	SM	A: 29.4 R: 3.05	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T122	Common Oak <i>Quercus robur</i>	9	270	N E S W	3 3 3 3	SM	A: 33 R: 3.24	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T123	Wild Cherry <i>Prunus avium</i>	11	420	N E S W	4 3 3 3	M	A: 79.8 R: 5.03	Fair	C: Good S: Fair B: Good	See Comment :: Unspecified Included bark at 1m, monitor condition.		C.1.2 20 to 40 yrs
T124	Common Oak <i>Quercus robur</i>	10	310	N E S W	1 2 2 3	SM	A: 43.5 R: 3.72	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
Age Classifications: N Newly planted M Mature Condition: C Crown Y Young OM Over Mature S Stem SM Semi-mature D Dead B Basal area												

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T125	Common Oak <i>Quercus robur</i>	6	175	N E S W	2 1 1.5 1.5	Y	A: 13.9 R: 2.1	Fair	C: Fair S: Good B: Good	See Comment :: Unspecified ----- Tree is being shaded out somewhat, by its neighbours	C.1.2 20 to 40 yrs	
T126	Common Oak <i>Quercus robur</i>	10	285	N E S W	4 2.5 3 2	SM	A: 36.8 R: 3.42	Good	C: Good S: Good B: Good	Raise low canopy :: To 3.0m -----	B.1.2 >40 yrs	
T127	Common Oak <i>Quercus robur</i>	7	175	N E S W	2 2 2 2	SM	A: 13.9 R: 2.1	Fair	C: Fair S: Good B: Good	See Comment :: Unspecified ----- The tree is being shaded somewhat, by its neighbours	C.1.2 >40 yrs	
T128	Wild Cherry <i>Prunus avium</i>	12	450	N E S W	5 4 5 4	M	A: 91.6 R: 5.39	Good	C: Good S: Good B: Good	No action :: Unspecified -----	B.1.2 20 to 40 yrs	
T129	Common Oak <i>Quercus robur</i>	5	160	N E	2 1	Y	A: 11.6 R: 1.92	Fair	C: Poor S: Fair B: Good	See Comment :: Unspecified ----- The tree is being shaded out somewhat, by its neighbours. monitor condition.	C.2	
T130	Common Hawthorn <i>Crataegus monogyna</i>	5	320	N E S W	3 3 3 3	OM	A: 32.2 R: 3.2	Fair	C: Fair S: Fair B: Fair	See Comment :: Unspecified ----- Tree is entering decline, monitor condition.	C.2 10 to 20 yrs	
T131	Common Ash <i>Fraxinus excelsior</i>	15	655	E S W	3 7 6	M	A: 194.1 R: 7.86	Fair	C: Poor S: Fair B: Good	See Comment :: Unspecified ----- Tree has lost 2 limbs due to falling limb fromT132. monitor condition.	C.1.2 >40 yrs	
T132	Common Ash <i>Fraxinus excelsior</i>	19	790	N E S W	1 3 6 6	M	A: 282.4 R: 9.48	Poor	C: Poor S: Poor B: Fair	Remove :: Unspecified ----- Tree has suffered major limb loss at 4m due to internal decay.	C.1 10 to 20 yrs	
Age Classifications: N Y SM Newly planted Young Semi-mature M OM D Mature Over Mature Dead Condition: C S B Crown Stem Basal area												

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T133	Common Oak <i>Quercus robur</i>	10	500	N E S W	4 5 5 6	M	A: 78.5 R: 4.99	Fair	C: Good S: Fair B: Fair	See Comment :: Unspecified Basal cavity forming at point of early stem loss. monitor condition.	B.1.2 >40 yrs	
T134	Common Holly <i>Ilex aquifolium</i>	9	460	N E S W	3 3 3 3	M	A: 66.5 R: 4.6	Fair	C: Good S: Good B: Fair	See Comment :: Unspecified Areas of weak stem attachment at base.	C.1.2	
T135	Common Hawthorn <i>Crataegus monogyna</i>	7	600	N E S W	3 2 2 2	M	A: 113.1 R: 6	Fair	C: Fair S: Fair B: Poor	See Comment :: Unspecified Areas of weak stem attachment at base, monitor condition.	C.2 10 to 20 yrs	
T136	Common Hawthorn <i>Crataegus monogyna</i>	6	460	N E S W	3 3 3 3	M	A: 66.5 R: 4.6	Fair	C: Fair S: Fair B: Poor	See Comment :: Unspecified Areas of weak stem attachment at base, monitor condition.	C.2 10 to 20 yrs	
T137	Common Holly <i>Ilex aquifolium</i>	4	190	N E S W	2 1 1 2	SM	A: 11.3 R: 1.89	Good	C: Good S: Good B: Good	No action :: Unspecified	B.2 20 to 40 yrs	
T138	Common Oak <i>Quercus robur</i>	7	300	N E S W	3 3 3 3	SM	A: 28.3 R: 3	Good	C: Good S: Good B: Good	No action :: Unspecified	B.1.2 >40 yrs	
T139	Common Holly <i>Ilex aquifolium</i>	8	500	N E S W	2 2.5 2 3	M	A: 78.5 R: 4.99	Good	C: Good S: Good B: Good	No action :: Unspecified	B.2 20 to 40 yrs	
T140	Common Hawthorn <i>Crataegus monogyna</i>	6	185	N E S W	2 2 2 2	M	A: 15.5 R: 2.22	Fair	C: Good S: Fair B: Fair	See Comment :: Unspecified Small basal cavity, monitor condition.	C.2 20 to 40 yrs	
Age Classifications:		N Newly planted Y Young SM Semi-mature	M Mature OM Over Mature D Dead	Condition:		C Crown S Stem B Basal area						

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T141	Common or Black Elder <i>Sambucas nigra</i>	4	320	N E S W	2.5 2 2 1	M	A: 32.2 R: 3.2	Fair	C: Fair S: Fair B: Poor	See Comment :: Unspecified Tree is entering decline, monitor condition.	C.2 <10 yrs	
T142	Common or Black Elder <i>Sambucas nigra</i>	5	370	N E S W	2 3 3 3	M	A: 43 R: 3.69	Fair	C: Good S: Fair B: Fair	See Comment :: Unspecified Small cavities in stem, monitor condition.	C.2 10 to 20 yrs	
T143	Common Oak <i>Quercus robur</i>	5	210	N E S W	2 3 3 3	Y	A: 20 R: 2.52	Good	C: Good S: Good B: Good	No action :: Unspecified	B.1.2 >40 yrs	
T144	Sycamore <i>Acer pseudoplatanus</i>	16	690	N E S W	6 6 6 6	M	A: 215.4 R: 8.28	Poor	C: Good S: Poor B: Poor	See Comment :: Unspecified Reduce crown(s) :: By 50% Large decay in stem and basal area, monitor condition.	C.2.3	
T145	Sycamore <i>Acer pseudoplatanus</i>	20	740	N E S W	8 7 5 7	M	A: 247.8 R: 8.88	Fair	C: Fair S: Fair B: Fair	See Comment :: Unspecified Remove :: Faulted branch/limbs Small cavity at 0.5m southern facing stem, squirrel damage in lower limbs. monitor condition.	B.1.2 20 to 40 yrs	
T146	Wild Cherry <i>Prunus avium</i>	6	140	N E S W	2 2 2 2	SM	A: 8.9 R: 1.68	Good	C: Good S: Good B: Good	No action :: Unspecified	C.2 >40 yrs	
T147	Sycamore <i>Acer pseudoplatanus</i>	7	930	N E S W	3 5 5 5	OM	A: 391.3 R: 11.16	Poor	C: Poor S: Poor B: Poor	See Comment :: Unspecified Tree has snapped out at 5m as a result of large internal decay. monitor condition.	C.1.2.3 10 to 20 yrs	
T148	Common Oak <i>Quercus robur</i>	6	195	N E S W	3 3 3 3	Y	A: 17.2 R: 2.33	Good	C: Good S: Good B: Good	No action :: Unspecified	B.1.2 >40 yrs	
Age Classifications:		N Newly planted Y Young SM Semi-mature	M Mature OM Over Mature D Dead	Condition:		C Crown S Stem B Basal area						

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T149	Common Oak <i>Quercus robur</i>	6	205	N E S W	3 4 3 3	Y	A: 19 R: 2.45	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T150	Cork Oak <i>Quercus suber</i>	17	850	N E S W	6 9 7 8	M	A: 326.9 R: 10.2	Good	C: Good S: Good B: Good	No action :: Unspecified		A.1.2 >40 yrs
T151	Wild Cherry <i>Prunus avium</i>	13	570	N E S W	5 4 4 5	M	A: 102.1 R: 5.7	Good	C: Good S: Good B: Good			B.1.2 20 to 40 yrs
T152	Common Oak <i>Quercus robur</i>	11	280	N E S W	4 2 3 4	SM	A: 35.5 R: 3.36	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T153	Common Oak <i>Quercus robur</i>	10	170	N E S W	4 1 2 2	SM	A: 13.1 R: 2.04	Fair	C: Poor S: Good B: Good	See Comment :: Unspecified Tree has lost its leader as a result of extensive squirrel damage, monitor condition.		C.1.2 >40 yrs
T154	Common Oak <i>Quercus robur</i>	12	250	N E S W	3 3 4 4	SM	A: 28.3 R: 3	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T155	Common Oak <i>Quercus robur</i>	12	255	N E S W	4 4 4 3	SM	A: 29.4 R: 3.05	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T156	Common Ash <i>Fraxinus excelsior</i>	12	225	N E S W	4 3 2 4	SM	A: 22.9 R: 2.69	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 >40 yrs
Age Classifications: N Newly planted Y Young SM Semi-mature M Mature OM Over Mature D Dead Condition: C Crown S Stem B Basal area												

Tree	Species	Hght (m)	DBH (mm)	Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ECB
				Spread (m)	Clear (m)					Survey Comment		
T157	Common Oak <i>Quercus robur</i>	10	225	N E S W	4 2 4 3	SM	A: 22.9 R: 2.69	Good	C: Good S: Good B: Good	No action :: Unspecified		B.1.2 >40 yrs
T158	Common Oak <i>Quercus robur</i>	10	190	N E S W	2 3 3 3	SM	A: 16.3 R: 2.27	Fair	C: Fair S: Good B: Good	See Comment :: Unspecified Tree is being slightly shaded out by its neighbours.		B.1.2 >40 yrs
T159	Wild Cherry <i>Prunus avium</i>	5	145	N E W	2 2 2	Y	A: 9.5 R: 1.73	Good	C: Good S: Good B: Good	No action :: Unspecified		C.2 20 to 40 yrs
T160	Wild Cherry <i>Prunus avium</i>	13	455	N E S W	5 4 5 5	M	A: 93.7 R: 5.46	Good	C: Good S: Good B: Good	No action :: Unspecified		B.2 20 to 40 yrs
</												

Report selection criteria.

Projects.

Llywnn Onn, Water Treatment Works

Date Range.

Any Date

Work types.

----> No action :: Unspecified
----> -No Selection made-
----> Raise low canopy :: To 3.0m
----> Reduce crown(s) :: By 50%
----> Reduce faulted limbs/stems :: Unspecified
----> Remove :: Faulted branch/limbs
----> Remove :: Ivy
----> Remove :: Minor dead wood
----> Remove :: Unspecified
----> See Comment :: Unspecified

Latest Survey.

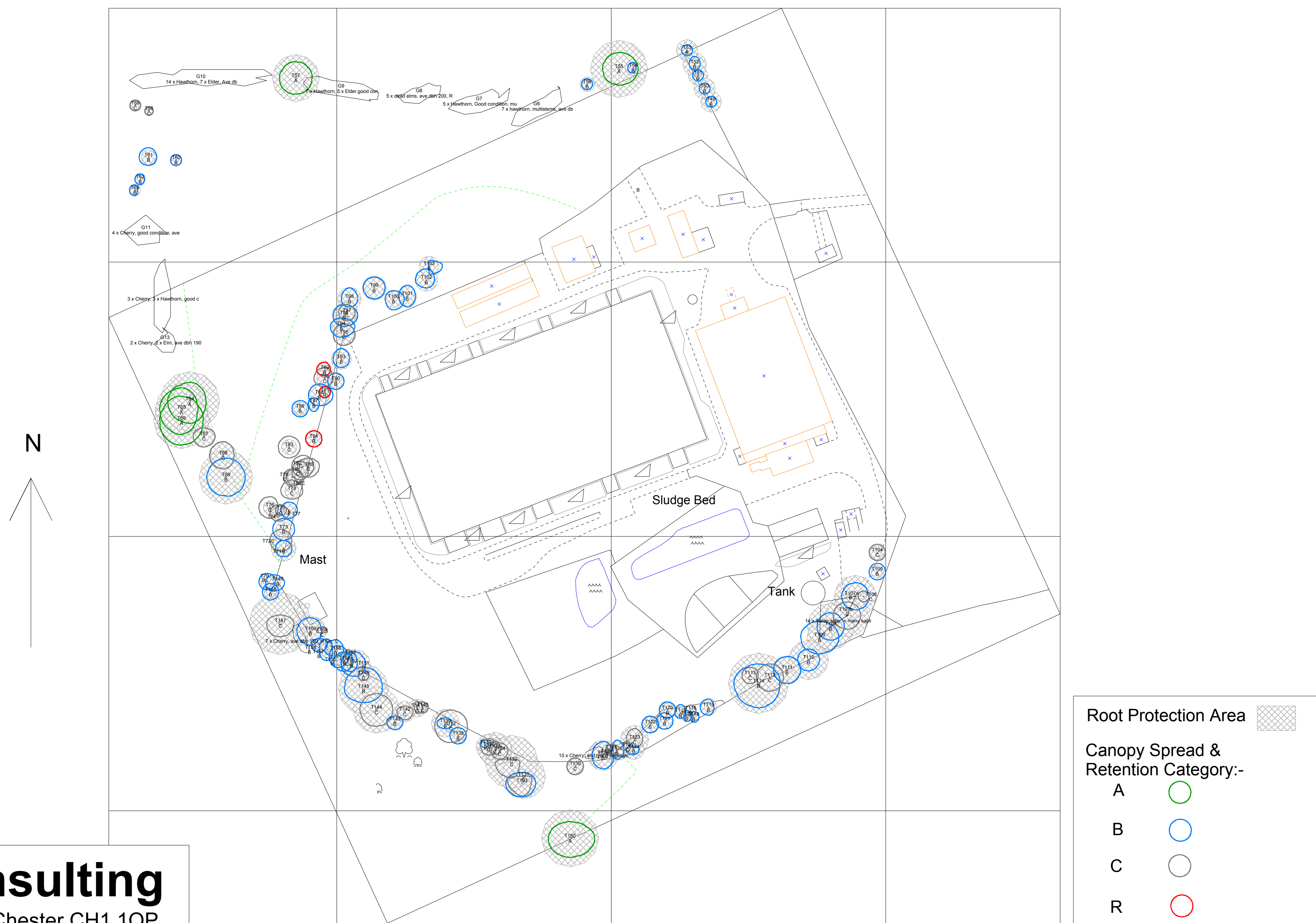
---> All surveys for the selected trees.
Last survey for each selected tree

Work Completed.

---> Work Completed
---> Work Not Completed

Number of trees in selected Project(s) 114

Number of trees in Report selection 114



Arbtech Consulting

Murlain House, Union Street, Chester CH1 1QP
08450 176 950

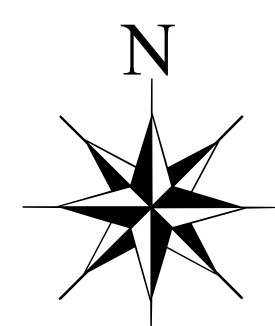
Llywn Onn, Water Treatment Works

SCALE :
1 : 1000 on A1

DATE :
5/25/2011

MAP FILENAME :
Wrexham Plotted.mpd

Pear Technology Services Ltd; Email info@peartechology.co.uk
Maps based on Ordnance Survey MasterMap or 1:25000 Mid-scale data
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PLANTING SCHEDULE

Replacement Shelterbelt planting (SB1)
Whips: 80 - 100cm high, planted on a grid at 1.5m centres, mesh tree shelter with soft wood stakes, area underseeded with EG2, Standard General Purpose Meadow mixture, Maintenance regime: Spot weed treated - 1.0m diameter area around base of each tree.

%	Species	Form	Root Type	Height (cm)	Transplanted	Notes
10	Acer pseudoplatanus	Feathered Tree	BR	80 - 100	1+1 transplanted	
20	Fagus sylvatica	Feathered Tree	BR	80 - 100	1+1 transplanted	
20	Fraxinus excelsior	Feathered Tree	BR	80 - 100	1+1 transplanted	
20	Pinus sylvestris	Feathered Tree	BR	80 - 100	1+1 transplanted	
20	Pinus pinus	Feathered Tree	BR	80 - 100	1+1 transplanted	
10	Quercus robur	Feathered Tree	BR	80 - 100	1+1 transplanted	

Replacement Shelterbelt planting (SB2)
Whips: 80 - 100cm high, planted on a grid at 1.0m centres, mesh tree shelter with soft wood stakes, area underseeded with EG2, Standard General Purpose Meadow mixture, Maintenance regime: Spot weed treated - 1.0m diameter area around base of each tree.

%	Species	Form	Root Type	Height (cm)	Transplanted	Notes
20	Pinus pinus	Feathered Tree	BR	80 - 100	1+1 transplanted	
20	Fraxinus excelsior	Feathered Tree	BR	80 - 100	1+1 transplanted	
20	Fagus sylvatica	Feathered Tree	BR	80 - 100	1+1 transplanted	
20	Tilia cordata	Feathered Tree	BR	80 - 100	1+1 transplanted	

Standard General Purpose Meadow Mixture (WF1)
General purpose meadow mixture; (Emonsgate EG2 or similar approved); 20% wildflower 80% grass seed mixture; sown at 5g/m²; Increase rate of application by 50% for slopes exceeding 1:3.

Wildflower	%
Achillea millefolium	0.5
Centaurea nigra	2.5
Daucus carota	0.8
Galium verum	2.2
Leucanthemum vulgare	1
Lous pedunculatus	1.5
Lychnis fls-circuli	1.5
Plantago lanceolata	0.5
Primula veris	1.5
Prunella vulgaris	2.5
Ranunculus acris	2.5
Ranunculus bulbosus	1
Rhinanthus minor	1.5
Rumex acetosa	0.5

Grasses	%
Agrostis capillaris	8
Cynosurus cristatus	40
Festuca rubra	28
Pleium bertolonii	4

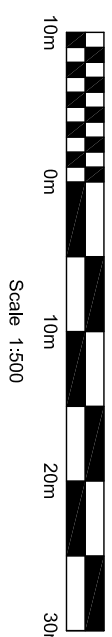
Notes:

- All plant material to be compatible with BS3936 Part 1, 1992 specifications - "Nursery Stock BS4043.
- All quality of the landscape work, planting to be compatible with BS4428 specification 1989 - landscape operations.
- The quality of the topsoil for all new planting areas to be to BS 3862 specification.
- Cultivate existing / or imported topsoil over soft landscape areas to the following depths
- Wildflower (seed direct into subsoil) 0mm
Amenity grass 150mm

KEY

	ROOT PROTECTION AREA (RPA)
	TREE STEM
	TREE NO.
	TREE TO BE RETAINED
	GROUP TO BE RETAINED
	TREE TO BE REMOVED
	BUILDING TO BE REMOVED
	PROPOSED MITIGATION PLANTING
	TEMPORARY ACCESS TRACK
	NEW BUILDING

NOTE:
For tree schedule, see Artech Environmental services tree survey Schedule (Appendix 1)



Rev	Drawn	Checked	Date	Description
P2	RW	SR	Nov.10	Update to title box
P3	RW	SR	May.11	Updates to Mitigation following Proposals update

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Dee Valley Water

Llwyn Onn WTW

LANDSCAPE MITIGATION PROPOSALS PLAN

Drawn By:	RW	Date:	31.08.10
Checked By:	AC	Date:	01.09.10
Drawing Scale:	1:500	Sheet Size:	A1
Drawing No.	10	067	0004
		Revision	P3