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Landscape, Arboricultural & Ecological Solutions
for the Built Environment

Arboricultural Impact Assessment

Commonwood Fishery
Wrexham
LL13 9TF

October 2016

Ascerta

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EXECUTIVE SUMMARY

A survey of the existing trees on and adjacent land at Commonwood Fishery, Buck Road, Wrexham, LL13 9TF has been carried out by a suitably qualified and competent Arboriculturist in accordance with British Standard 5837: 2012 *Trees in relation to design, demolition and construction – Recommendations*.

The purpose of the survey and of this report is to identify the impact of the proposed development of the site on trees, both within and immediately adjacent the site, in accordance with the provisions of BS5837: 2012.

The development of the site will involve the construction of a number of fishing pods, wooden lodges and a series of new pathways, which will not require the removal of any existing trees but which, in the absence of suitable controls, has the potential to have an indirect impact on a number of the trees proposed for retention.

Mitigation for the impact of the development can be provided in the form of the following:

- The erection of protective fencing in advance of the commencement of the development to safeguard the root systems of retained trees.

In some locations, the proposed pathways and cabins are located within significant proportions of the root protection areas of retained trees, and so, without a re-design, the paths and buildings would need to be constructed under the supervision of the project arboriculturist, be subject to a tree protection method statement and in some areas, finished surfaces would need to be porous and include geo-textiles. However, considering the layout of trees on site and the large areas of available open space, we recommend that the proposed paths are re-directed to avoid root protection areas and buildings are re-positioned if possible, to reduce any adverse arboricultural implications and therefore the additional complications and costs associated with protecting the trees. Drawing P.789.16.02 *Tree Constraints & Draft Protection Drawing* appended to this report indicates our advised routes for the paths so as to avoid root protection areas and provides the extent of precautionary measures to protect remaining retained trees.

1.0 Introduction

- 1.1 Ascerta has been instructed by Mr and Mrs Dunn to carry out a survey of the trees within and immediately adjacent land at Commonwood Fishery, Buck Road, Wrexham, LL13 9TF, and to assess the potential impact of the development as proposed on trees within / adjacent the site in accordance with British Standard 5837: 2012 *Trees in relation to design, demolition and construction – Recommendations*.
- 1.2 The site was visited on 14th October, 2016 by Robert Armitage BSc (Hons), a competent and qualified arboriculturist with experience of the UK and European arboricultural and landscape industries within the context of the planning system. During the site visit, a survey was carried out of the trees growing both on and immediately adjacent the site to the standards contained within BS5837: 2012. This report presents the results of the survey, provides an assessment of the impact of the development and includes recommendations for further actions, where applicable, in order to mitigate any potentially negative effects of the development on tree cover within the local landscape.

2.0 Objectives

- 2.1 Our client's objective is to develop the site by the construction of a number of fishing pods, wooden lodges and a series of new pathways.
- 2.2 Our objectives are as follows:
- Identify what arboricultural features exist presently within and adjacent the site and to record and categorise them in a manner consistent with BS5837: 2012;
 - Identify which trees will need to be removed directly as a result of the proposed development of the site;
 - Identify any indirect impact from the proposed development on trees proposed for retention;
 - Provide an indication of what protection measures can be implemented as part of the development of the site to ensure the physical protection of retained trees;
 - Provide recommendations for mitigation and compensation in terms of new planting or enhancement of existing features of arboricultural, landscape or ecological interest or importance; and
 - Provide any other recommendations to assist our clients in achieving their objectives whilst satisfying current legislation or policy guidance in relation to the woody vegetation on site.

3.0 Planning Policy & Relevant Legislation

- 3.1 The National Planning Policy Framework (March 2012) sets out the Government's planning policies for England and how these are expected to be applied. The Framework contains a presumption in favour of sustainable development, with sustainable development in the UK being defined under the UK Sustainable Development Strategy *Securing the Future*. This sets out five 'guiding principles' of sustainable development: living within the planet's environmental limits; ensuring a strong, healthy and just society; achieving a sustainable economy; promoting good governance; and using sound science responsibly.
- 3.2 The Framework seeks to facilitate the approval, without delay, of developments that meet the objectives of up to date Local Plans. Where proposed developments involve net gains for nature and biodiversity, this is to be seen as a positive improvement in the quality of the natural environment and thus in compliance with the objectives of the Framework.
- 3.3 The site lies within the Wrexham Council administrative area and is subject to the Wrexham Unitary Development Plan. Policy *EC4 Hedgerows, Trees and Woodlands* applies to the subject site in relation to trees and has been taken into account when writing this report.
- 3.4 Checks made with Wrexham Council on 25th October, 2016 indicate that none of the trees within the site are subject to statutory controls either in the form of a Tree Preservation Order, nor by virtue of their location within a Conservation Area. In advance of the commencement of any works to trees within or adjacent the site, those instructing and proposing to carry out such works should satisfy themselves that all appropriate consents are in place to prevent potential breach of legislation.
- 3.5 British Standard 5837: 2012 *Trees in relation to design, demolition and construction – Recommendations* provides current recommendations and guidance on the relationship between trees and design, demolition and the construction processes. It sets out the principles and procedures to be applied to achieve a harmonious and sustainable relationship between trees and structures.
- 3.6 Notwithstanding the aforementioned policies and legislation, consideration should also be given to any impacts from the proposed development in respect of the Hedgerow Regulations 1997 and the Forestry Act 1967 (and specifically the potential need for a felling licence), as well as existing UK and European legislation relating to wildlife and nature conservation.

4.0 Survey & Survey Methodology

- 4.1 We have been supplied with a digital copy of the topographical survey for the site, which satisfies the relevant section of 4.2 of BS5837: 2012. Features of arboricultural or landscape interest that have been excluded from the original plan (for example trees on or located off site but within a distance from the boundary of the site equal to or less than 12 times the stem diameter of that tree) have been added to the plan manually.
- 4.2 Our assessment of the soils within the site, based on local site conditions, geography, available soil maps and our own experience of soils across the United Kingdom, indicates that the soils on site are likely to contain a clay element, and that this will have a plasticity index in the low/medium range. Any further details or confirmation of the exact nature of soil conditions on site will require further, more rigorous sampling and analysis. It is not however anticipated that the clay content will cause specific issues relating to retention of trees given the impact of the development proposals, providing that consideration is given to this aspect in advance of and during the construction phase of the development. Provision will need to be made for the protection of soil structure in key areas during the construction phase and the repair of any damage post construction. Further details are provided throughout this report and final details can be secured via planning condition.
- 4.3 Our survey of the trees within and adjacent the site was carried out by a qualified and competent arboriculturist in accordance with sections 4.4 and 4.5 of BS5837: 2012 on 14th October, 2016 during cold and sunny weather conditions. Those trees surveyed have been numbered sequentially, although for the purposes of this project they have not been tagged. The trees have also been categorised in accordance with section 4.5 and Table 1 of the Standard.
- 4.4 Where relevant and where the quality of shrub masses and hedges justifies recording, details have been recorded to the tree survey plan and tree data tables.
- 4.5 Where trees are surveyed that require immediate attention, for example to abate a nuisance, prevent a serious hazard to life or property, or are affected by a pathogen or pest that could cause widespread damage unless it is controlled, notification will be issued to the relevant person or organisation such that appropriate action can be taken.
- 4.6 Root Protection Areas for those trees surveyed have been calculated in accordance with the formulas within section 4.6 and Annex C of the Standard and can be found within the tree data tables that accompany this report. The tree data tables also contain a key to abbreviations used and the rationale for determining Root Protection Areas for groups of trees and woodlands (where applicable).

5.0 Survey Results & Impact Assessment

- 5.1 **Existing Tree Cover:** Four individual trees, seven groups of trees and one hedge were recorded during our survey, the details of which can be found within Appendix 1 to this report and cross referenced with drawing P.789.16.01 *Tree Survey*.
- 5.2 **Direct Impact on Trees:** The development of the site will not require the removal of any existing trees providing proposed paths are re-routed to avoid stems and root protection areas.
- 5.3 **Indirect Impact on Trees:** In the absence of suitable controls, the development may well have an indirect impact on a number of trees on and adjacent the site. Measures are therefore required during the construction phase, as described throughout this report, in order to safeguard retained trees for the long term benefit of the landscape.
- 5.4 **Context in the Wider Landscape:** The wider landscape comprises agricultural fields bordered by established mature hedges with intermittent emerging trees. As the development proposals do not require the removal of any existing trees (providing pathways are re-routed as advised), the development proposals will not have any impact on the extent of tree canopy cover within the wider landscape.
- 5.5 **Hedgerows:** In accordance with the Hedgerow Regulations 1997, ‘important’ hedgerows (in the context of the Regulations) should not be removed without a Hedgerow Removal Notice issued by the relevant Local Authority, unless that removal is subject to an appropriate consent under the Town and Country Planning Act 1990. In this instance however, no hedgerows are proposed for removal to accommodate the development proposals, therefore there are no arboricultural implications associated with such work.
- 5.6 **Potential Mitigation for Development Impacts:** Mitigation of the potential impacts of the development can be provided by the erection of protective fencing to an agreed specification in suitable locations (as indicated on drawing P.789.16.02 *Tree Constraints & Draft Protection Drawing*) in advance of the commencement of the development.
- 5.7 **Potential for Shading & Nuisance:** Considering the layout, the location of existing trees and the proposed use for the site, we do not consider in this case that shade will be excessive, or that any other ordinary circumstance arising from the presence of trees, for example from leaf or fruit drop, will constitute an unacceptable nuisance.
- 5.8 **Boundary Screening:** Trees located adjacent to the boundaries of the site make a welcome contribution to the screening of views and can be complemented by the planting of new trees and shrubs such as to filter views and integrate the development into the surrounding landscape.

5.0 Survey Results & Impact Assessment (Continued)

- 5.9 **Long Term Spatial Constraints:** The proposed layout has been designed to meet the standards set by the local planning authority and is such that, where applicable, there should generally be adequate space between new buildings and trees to limit the potential for future pressure to remove trees. Whilst it is not possible to predict what actions future occupiers will seek to take in respect of trees within or adjacent properties, the existing layout is considered acceptable from a design perspective and contributes to a balanced landscape.
- 5.10 **Existing Areas of Hard Standing:** Existing areas of hard standing to be removed are located outside the root protection areas of trees proposed for retention and therefore there should be no arboricultural impacts associated with the removal of hard surfaces.
- 5.11 **Existing buildings/structures to be removed:** No existing buildings are to be demolished as part of the development proposals and therefore there are no arboricultural impacts associated with such works.
- 5.12 **Proposed Areas of Hard Standing:** As can be seen on drawing P.789.16.02 *Tree Constraints & Draft Protection Drawing* appended to this report, the proposed locations of several pathways encroach within the root protection areas of retained trees and so, if the pathways are not re-routed as we recommend (see P.789.16.02 *Tree Constraints & Draft Protection Drawing*), geotextiles will have to be included within the design and the finished surfaces will have to be porous. The drawing indicates the extent and location of the required precautionary measures in order to safeguard the trees, all final details of which should be subject to a methodology agreed in advance of the commencement of the development. However, if pathways are taken outside of root protection areas, no such precautionary measures will be required; careful construction methodologies alone alongside the erection of protection fencing will provide adequate protection.
- 5.13 **Proposed Buildings Located Adjacent / Within Root Protection Areas:** Again, some of the proposed buildings/log cabins are located within and immediately adjacent root protection areas of retained trees, which could have potentially negative impacts on the trees during the construction process without the implementation of control measures to safeguard roots and canopies. This would likely require an arboricultural method statement to take account of the specifics of building construction and how trees are to be safeguarded. However, considering the buildings are wooden cabins and will not require excavations for foundations, the potential for root damage is significantly reduced; the main aspect of concern which will need mitigating will be related to soil compaction.

However, again, there is scope to slightly relocate the buildings outside of root protection areas and therefore reduce the potential for adverse impacts on retained trees and the need for such stringent protection measures. Drawing P.789.16.02 *Tree Constraints & Draft Protection Drawing* indicates locations where buildings currently encroach within or adjacent root protection areas and provides advice accordingly.

5.0 Survey Results & Impact Assessment (Continued)

- 5.14 **Proposed Drainage & Domestic Services:** At the planning application stage of the project, details of proposed drainage arrangements and provision of utility services are generally not known. During the installation process however, general guidance can be obtained from the National Joint Utilities Group publication *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Volume 4* such as to minimise the impact of works on retained trees.
- 5.15 **Working Space During the Construction Phase:** The site is of a size such that there will be adequate working space throughout the construction phase, with little if any potential impact on retained trees. However, it is essential that construction exclusion zones created to safeguard retained trees are not breached without prior consideration and implementation of control measures to limit any potentially negative impacts on trees.
- 5.16 **Access Facilitation Pruning:** There may be a limited number of areas within the site where an element of access facilitation pruning may be required to accommodate the adjacent works; however, such procedures should only be minor and providing that these works are controlled and carried out to a minimum of the standards as contained within BS3998: 2010 *Tree work – Recommendations*, then the visual impact of the work will be minimal and will not detract from the overall landscape value of the site. Our preliminary recommendations for arboricultural works are stated within the Tree Data Tables at Appendix 2.
- 5.17 **Requirement for an Arboricultural Method Statement:** The current proposals have the potential to cause damage to retained trees as certain pathways and buildings are located within significant proportions of root protection areas. Works to implement these proposals will need to be subject to a tree protection method statement to ensure the health of retained trees is maintained in the long term and that no unnecessary damage is caused. However, as there is scope to relocate buildings and pathways outside of root protection areas as indicated on drawing P.789.16.02 *Tree Constraints & Draft Protection Drawing* appended to this report, we advise proposals are amended accordingly to avoid potential impacts on retained trees and therefore the additional protection measures.

6.0 Tree Protection Measures

- 6.1 On the basis of the proposed layout and those trees proposed for retention, drawing P.789.16.02 *Tree Constraints & Draft Protection Drawing* shows our preliminary recommendations for the physical protection of retained trees throughout the construction phase. The plan indicates the location of protective barriers, as well as the specification for construction of the protective fencing in accordance with Figures 2 & 3 of the Standard. These barriers will form a construction exclusion zone around the retained trees and 6.2 below outlines the measures that will also need addressing in the case that a method statement for tree protection is required alongside the erection of tree protection fencing and careful site works.
- 6.2 The method statement will need to address and make allowance for the following:
- All forms of access required to the site;
 - Site cabins and storage areas;
 - Proposed parking for site personnel;
 - Phasing of works;
 - Space required for any excavations (including foundation excavations if required);
 - Any required special construction techniques (for example provision of porous surfaces);
 - The location and construction methodology for installation of services in close proximity to retained trees & hedges;
 - Any changes in ground levels and any resulting requirement for retaining structures;
 - Proposed root zone enhancement measures;
 - Working space for cranes, plant and scaffolding; and
 - Management of waste products within the site.
- 6.3 Over and above the physical tree protection measures that should form the basis for the tree protection method statement, the following details should be provided within the method statement:
- Protection of the soil structure within the proposed planted areas (where applicable);
 - Planting operations within the root protection areas of retained trees;
 - Any required / additional precautions outside of construction exclusion zones in relation to the treatment & landscaping of garden or open space areas;
 - System of arboricultural site monitoring / schedule of site visits and resulting actions.

7.0 Summary of Impacts & Potential Mitigation Factors

- 7.1 Table 1 below summarises the impacts of the development as proposed on tree cover within and immediately adjacent the site. Comments are also provided on potential mitigation, compensation or special measures required in order to minimise the impact of the development and safeguard trees proposed for retention.

Table 1: Summary of the impacts of the development on trees within / adjacent the site.

Issue	Affecting	Mitigation / Compensation / Special Procedures
Indirect physical impact on retained trees	Retained trees	Tree protection fencing should be erected to an agreed specification in advance of the commencement of the development. Key areas where works are proposed within or immediately adjacent root protection areas of retained trees should be subject to a method statement, agreed in advance as a condition of planning consent only if layout designs are not amended as recommended.
Provision of new hard surfaces	G2, G4, G5 and G6	Suitable construction methodologies are achievable, with the use of geotextiles / porous surfaces if applicable. Sensitive excavations will be required with an element of root pruning when necessary.
Construction of new buildings/structures	G1-G4	Once construction methodologies are finalised, a working methodology to protect adjacent retained trees will need to be established and implemented within an arboricultural impact assessment.
Access Facilitation Pruning	Retained trees	All pruning works should be carried out to a minimum of the standards contained within BS3998: 2010 <i>Tree work – Recommendations</i> .
Protective Fencing	To be erected to an agreed specification in advance of the commencement of the development and retained in-situ throughout the course of the construction phase.	

- 7.2 On the basis of the above and the contents of this report, the need for a method statement to protect retained trees is dependent upon the finalised layout for the site. Considering there is scope to move proposed pathways and buildings outside of root protection areas, we advise this is done as much as feasible in order to reduce, or prevent entirely, any potential adverse implications for above and below ground structures of retained trees. The proposals as they stand currently, will require quite extensive protection measures, including the use of geo-textiles and a porous surface in the locations indicated on drawing P.789.16.02 *Tree Constraints & Draft Protection Drawing*, and a specific methodology for the construction of the buildings will also be required in advance of the works to protect retained trees.

8.0 Conclusions & Recommendations

- 8.1 The direct and indirect impacts on tree cover as a result of the development proposals are outlined within this report and mitigation proposed accordingly that seeks where possible to satisfy local and national planning guidance and policy. Arrangements for the safeguarding and physical protection of retained trees should be agreed and implemented in a manner consistent with current arboricultural management practices to minimise any potentially negative effects on long term tree cover.
- 8.2 We recommend that the layout proposals are amended to take account of retained tree root protection areas as on drawing P.789.16.02 *Tree Constraints & Draft Protection Drawing* and that tree protection measures are implemented in accordance with a finalised version of the drawing. In the event that there is still the potential for an unacceptable level of damage to retained trees from the proposals, we will likely advise that a tree protection / arboricultural method statement be prepared and implemented as a condition of planning consent for the development.

9.0 References

Department for Communities and Local Government (March 2012) *National Planning Policy Framework*;

Wrexham Unitary Development Plan;

British Standard 5837: 2012 *Trees in relation to design, demolition and construction – Recommendations*;

National Joint Utilities Group publication *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Volume 4*.

Appendix 1

Site:	P.789.16 Commonwood Fishery, Wrexham	Surveyor:	Robert Armitage	 Landscape Trees Ecology
Client:	Mr & Mrs Dunn	Survey Date:	14th October, 2016	
Brief:	Tree Survey to BS5837:2012	Survey Conditions:	Cold and sunny	

T. No	Species	Ht (m)	Stem DBH (mm)	RPA Radius	Branch Spread				Ht Crown Clearance (m)	Age Class	P Condition	Structural Condition & General Comments	Preliminary Recommendations (not to be actioned without a valid planning consent)	Est. (yrs)	Cat
				(m)	N	S	E	W							Grade
G1	Ash, Grey Willow, Sycamore, Oak, Cherry, Elder, Elm and Hawthorn	12	300 average	3.60	4.5	4.5	4.5	4.5	0	Y/EM	F	High planting density group at the back of the site, with dense bramble understorey to the front of the group. Trees are sat adequately back from the development area to be remote from impacts. Taller emerging Ash trees of relatively low value. Occasional emerging Oak. Decline within Ash trees. Dense Ivy colonisation on main stems.	No works required at this stage.	20+	B2/C2
T1	Oak	11	480#	5.76	5	5	5	5	0	EM/M	F	Small indications of tip dieback. Main stem with dense Ivy colonisation. Emerging from dense bramble and Elder understorey.	No works required at this stage.	30+	B2
G2	Ash and Oak	13	600#	7.20	5	5	5	5	0	EM/M	F/P	Ash in decline, evident branch dieback at most branch tips and regular deadwood. Oak is in relatively good condition. Most easterly Oak with near horizontal stem in late stages of its life. Dense young Blackthorn and Hawthorn understorey.	No works required at this stage.	30+	B2/C2
G3	Cherry, Hawthorn, Blackthorn, Field Maple, Ash, Elder, Elm and Hybrid Black Poplar	13	250 average	3.00	4	4	4	4	0	Y/EM	F	High planting density predominantly young mixed species group located at the end of the field. 3m dense brambles at the front of the group. Elms appear in some element of poor condition. Small section of Hybrid Poplar towards the back of the group. Emerging taller Ash trees from Hawthorn, Elder and bramble understory.	No works required at this stage.	30+	B2/C2

NOTE: The Category Grade applied to trees surveyed is consistent with the recommendations within Table 1 of BS5837: 2012, however this does not necessarily correlate with the visual importance of a tree within the wider landscape, nor does it dictate which trees should be retained at the cost of quality development. Where trees are to be lost to accommodate a development, recommendations will be made such as to provide suitable mitigation and compensation, and to integrate the development into the wider landscape.

Key to Abbreviations & Headings

T. No.: Tree number (T = Tree, G – Group, W = Woodland, H = Hedge, Cpt. = Compartment)
Stem DBH (Diameter at Breast Height): Measured at 1.5m above ground level*
Ht Crown Clearance: Canopy ground clearance
Structural Condition: Description of any observed defects
Cat. Grade: Tree quality assessment in accordance with BS5837: 2012

Species: Common name used
Root Protection Area Radius: Root Protection Area as per BS5837: 2012
Age Class: Y = Young, EM = Early Mature, M = Mature, OM = Over mature, D = Dead
Preliminary Recommendations: Made in respect of known / intended use of the site
* For groups of trees, the stem diameter of the largest tree in the group is generally used
Denotes estimated DBH where access was not possible

Ht: Approximate height of tree from ground level in metres
Branch Spread: Extent of canopy spread in metres to each of the four cardinal points
P (Physiological) Condition: G = Good, F = Fair, P = Poor, D = Dead
Est. (yrs): Estimated remaining contribution in years

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Site:	P.789.16 Commonwood Fishery, Wrexham	Surveyor:	Robert Armitage	 Landscape Trees Ecology
Client:	Mr & Mrs Dunn	Survey Date:	14th October, 2016	
Brief:	Tree Survey to BS5837:2012	Survey Conditions:	Cold and sunny	

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T. No	Species	Ht (m)	Stem DBH (mm)	RPA Radius	Branch Spread				Ht Crown Clearance (m)	Age Class	P Condition	Structural Condition & General Comments	Preliminary Recommendations (not to be actioned without a valid planning consent)	Est. (yrs)	Cat
				(m)	N	S	E	W							Grade
T2	Alder	8.5	580#	6.96	3	3	3	3	0	EM/M	F/P	Canopy appears in some element of decline. Dense sucker growth and epicormic shoots from the base. Small canopy area. Dense Ivy colonisation on main stem and scaffold branches.	No works required at this stage.	10+ /20	C2
G4	Oak, Field Maple, Blackthorn, Grey Willow and Hawthorn	9	800#	9.60	4	4	4	4	0	EM/M	F	Dense Blackthorn and Hawthorn, predominantly Blackthorn understorey with intermittent emerging large early mature to mature Oak trees. Appears to be an unmaintained Blackthorn hedge. Oak trees with dense Ivy colonisation throughout canopies. Provides good screening and is a good feature.	No works required at this stage.	40+	B2
G5	Oak	13	600#	7.20	5	5	5	5	0.5	EM/M	P	Located approximately 4.5m from a newly built hard standing pathway with two stems immediately adjacent the pathway. All trees showing signs of significant decline. Close to death. Would be good to remove the trees as they have probably lost a lot of their roots from the adjacent construction of the pond and pathways.	No works required at this stage.	10	C2/U
T3	Oak	14	800#	9.60	5.5	5.5	5.5	5.5	1	M	F/P	Showing signs of early decline. Regular deadwood and areas of tip dieback towards the majority of branch tips. Evidence of past larger branch shedding. Deadwood hangers.	No works required at this stage.	10+ /20	B2/C2

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T. No.: Tree number (T = Tree, G = Group, W = Woodland, H = Hedge, Cpt. = Compartment)

Stem DBH (Diameter at Breast Height): Measured at 1.5m above ground level*

Ht Crown Clearance: Canopy ground clearance

Structural Condition: Description of any observed defects

Cat. Grade: Tree quality assessment in accordance with BS5837: 2012

Species: Common name used

Root Protection Area Radius: Root Protection Area as per BS5837: 2012

Age Class: Y = Young, EM = Early Mature, M = Mature, OM = Over mature, D = Dead

Preliminary Recommendations: Made in respect of known / intended use of the site

* For groups of trees, the stem diameter of the largest tree in the group is generally used

Denotes estimated DBH where access was not possible

Ht: Approximate height of tree from ground level in metres

Branch Spread: Extent of canopy spread in metres to each of the four cardinal points

P (Physiological) Condition: G = Good, F = Fair, P = Poor, D = Dead

Est. (yrs): Estimated remaining contribution in years

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Site:	P.789.16 Commonwood Fishery, Wrexham	Surveyor:	Robert Armitage	 Landscape Trees Ecology
Client:	Mr & Mrs Dunn	Survey Date:	14th October, 2016	
Brief:	Tree Survey to BS5837:2012	Survey Conditions:	Cold and sunny	

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T. No	Species	Ht (m)	Stem DBH (mm)	RPA Radius	Branch Spread				Ht Crown Clearance (m)	Age Class	P Condition	Structural Condition & General Comments	Preliminary Recommendations (not to be actioned without a valid planning consent)	Est. (yrs)	Cat
				(m)	N	S	E	W							Grade
G6	Alder, Elm, Oak, Grey Willow, Blackthorn, Hawthorn and Hazel	7	820#	9.84	4	4	4	4	0	Y/EM/M	F	Previously unmaintained linear Blackthorn and Hawthorn hedging now left to overgrow. Occasional emerging Oak and Alder trees. Some Oaks showing early signs of decline and others significant decline. Self-seeded Grey Willow now colonising large areas.	No works required at this stage.	30+	B2/C2
G7	Crack Willow	5	100	1.20	2.5	2.5	2.5	2.5	0	Y	F	Self-seeded Crack Willow. Low value scrub	No works required at this stage.	30+	C2
H1	Blackthorn, Hawthorn and Ash	3	100#	1.20	1	1	1	1	0	Y/EM	F	Unmaintained linear predominantly Blackthorn hedging with occasional emerging poor condition Ash with dense Ivy colonisation on main stems.	No works required at this stage.	30+	B2/C2
T4	Ash	7	500+ 430	7.91	2	2	2	2	1	EM/M	P	Dense Ivy colonisation on main stem main scaffold branches. Tree appears in significant decline. Large deadwood branches emerging from unmaintained Blackthorn hedging.	No works required at this stage.	10+	C2

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Key to Abbreviations & Headings

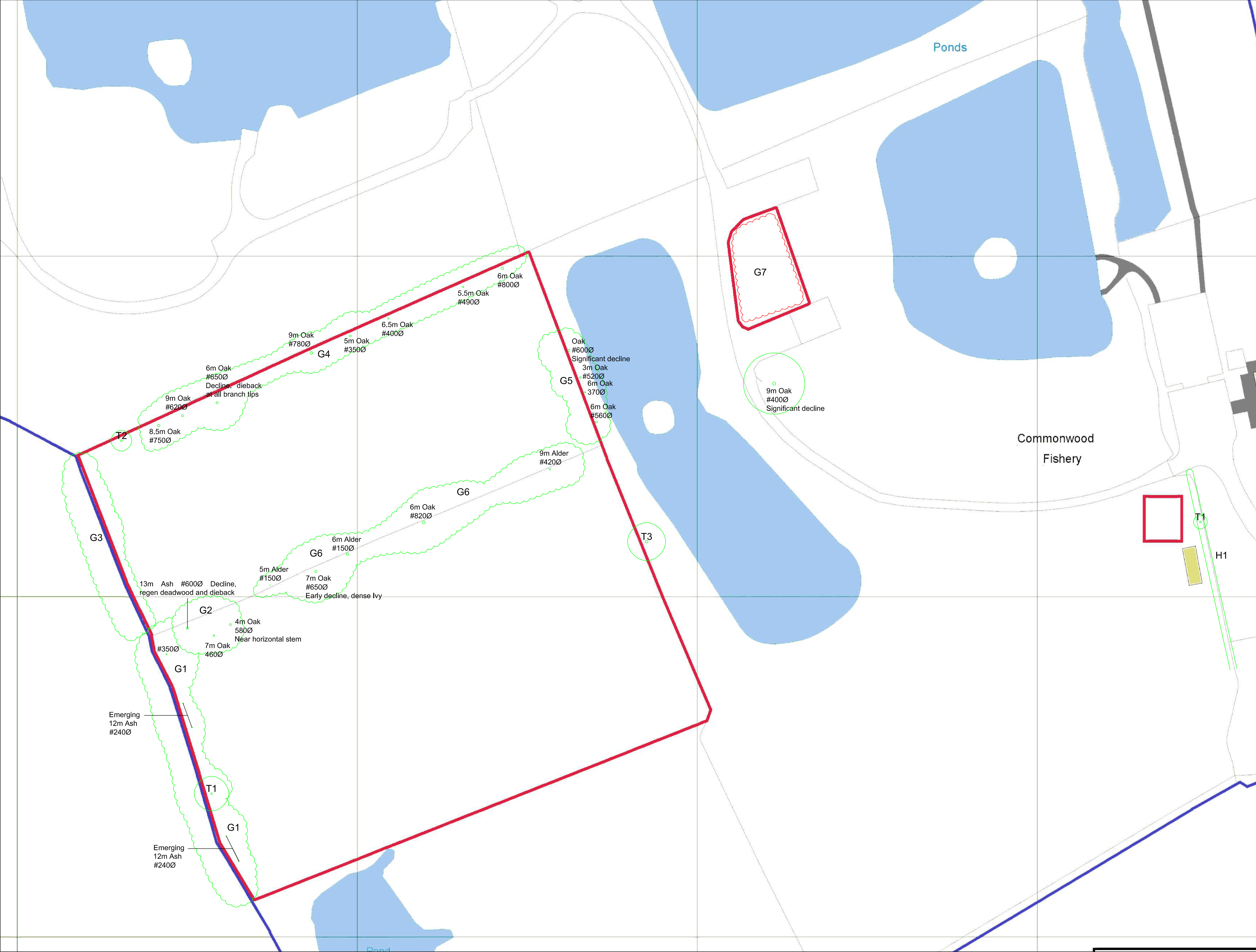
T. No.: Tree number (T = Tree, G – Group, W = Woodland, H = Hedge, Cpt. = Compartment)
Stem DBH (Diameter at Breast Height): Measured at 1.5m above ground level*
Ht Crown Clearance: Canopy ground clearance
Structural Condition: Description of any observed defects
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Age Class: Y = Young, EM =Early Mature, M = Mature, OM = Over mature, D = Dead
Preliminary Recommendations: Made in respect of known / intended use of the site
* For groups of trees, the stem diameter of the largest tree in the group is generally used
Denotes estimated DBH where access was not possible

Ht: Approximate height of tree from ground level in metres
Branch Spread: Extent of canopy spread in metres to each of the four cardinal points
P (Physiological) Condition: G = Good, F = Fair, P = Poor, D = Dead
Est. (yrs): Estimated remaining contribution in years

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Appendix 2



S:\All Jobs\789.16 Commonwood Fishery, Wrexham\Drawings\789.16.01 Tree Survey

DO NOT SCALE

ALL COORDINATES RELATED TO LOCAL GRID LOCATED TO OS NO BY BEST FIT TO DETAIL. EXTRACTED FROM OS DIGITAL DATA.

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KEY

Existing tree to be retained

Existing tree to be removed

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CLIENT:
Mr and Mrs Paul Dunn

PROJECT:
Commonwood Fishery, Wrexham

DRAWING TITLE:
Tree Survey

SCALE:
1:500 @A1

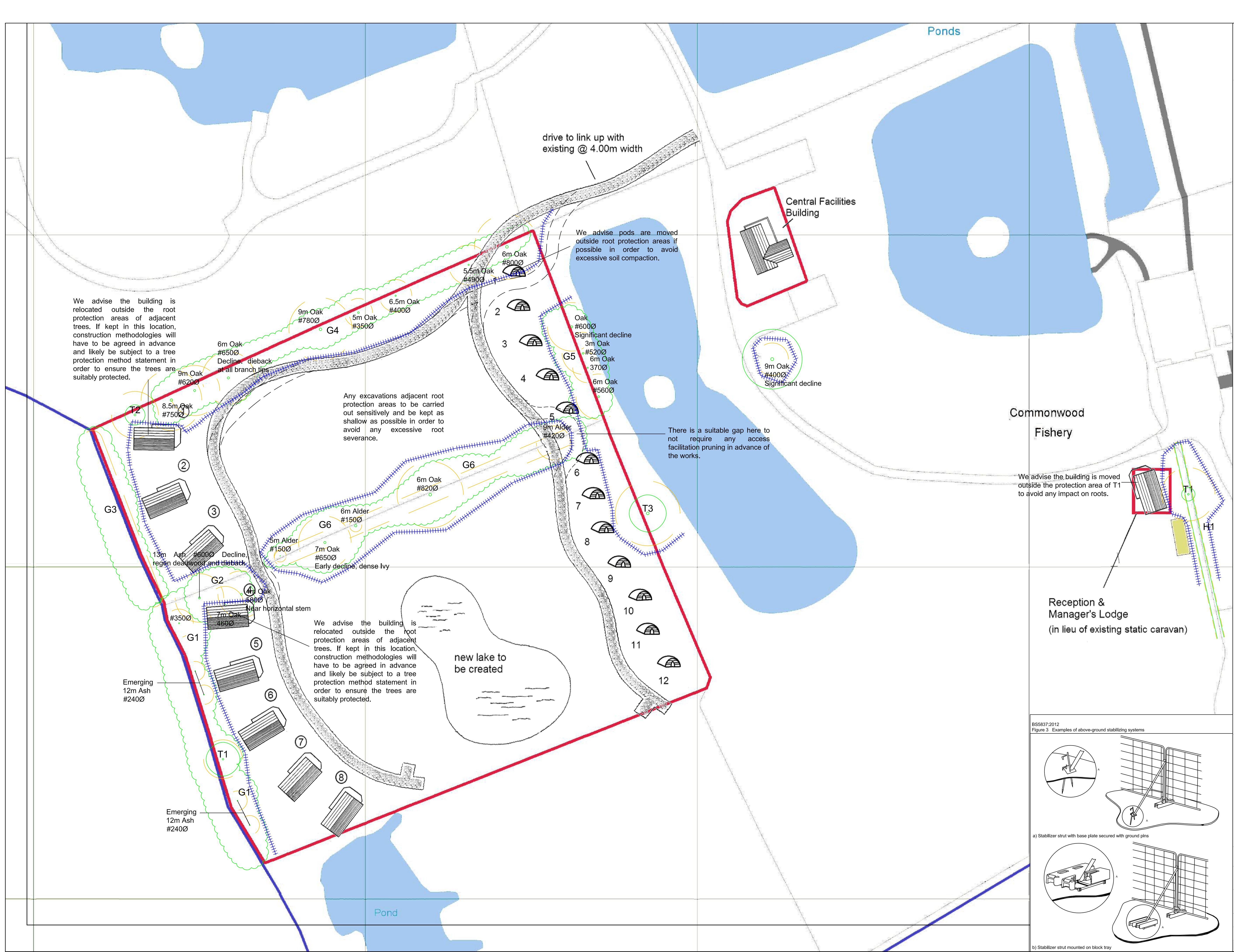
DATE:
14/10/2016

DRAWN BY:
CP

CHKD BY:
RA

DRAWING No:
P.789.16.01

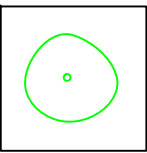
REV:
-



DO NOT SCALE

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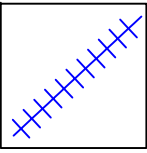
KEY



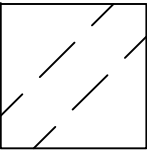
Existing tree to be retained



Extent of Root Protection Area for retained trees in accordance with BS5837: 2012 *Trees in relation to design, demolition and construction - Recommendations*

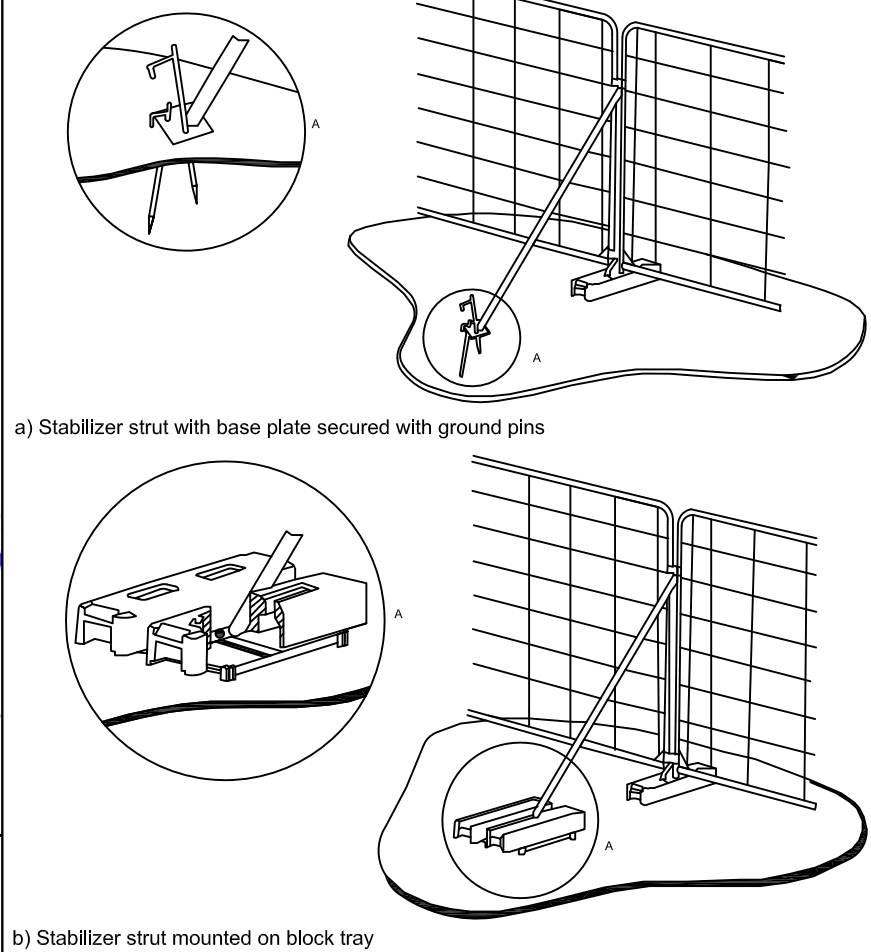


Proposed location of protective fencing - see inset for type / construction detail



Advised location of footpaths

BS5837:2012
Figure 3 Examples of above-ground stabilizing systems



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DRAWING TITLE:

Tree Constraints & Draft Protection Drawing

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1:500 @A1

DATE:

14/10/2016

DRAWN BY:

CP

CHKD BY:

RA

DRAWING No:

P.789.16.02

REV:

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