

# Ascerta

Landscape, Arboricultural & Ecological Solutions  
for the Built Environment

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## Arboricultural Impact Assessment

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Ysgol Gynradd  
Dolgarrog Primary School  
LL32 8QE

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April 2017

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### **Ascerta**

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**Appendix 1      Tree Data Tables in accordance with Table 1 of BS5837: 2012**

**Appendix 2      Drawing P.876.17.01 *Tree Survey*  
                    Drawing P.876.17.02 *Tree Constraints & Draft Protection Drawing***

## EXECUTIVE SUMMARY

A survey of the existing trees on and adjacent Ysgol Gynradd, Dolgarrog Primary School, LL32 8QE 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 demolition of the existing school buildings and the construction of a new school building. This will require the removal of three trees, T1, T2, and T19 to accommodate the new school entrance; also T5 will require removal to provide new access to the bin storage area. G3 and part of G2 will require removal to install a gabion wall that will support a raise in ground level towards to south east corner of the site. Part removal of H1 will be required to allow construction of a new bat house. In the absence of suitable controls, the development proposals have 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;
- The agreement, in advance of the commencement of the development, together with the implementation during the construction phase, of a methodology for the protection of retained trees; and
- The use of geotextiles and a ‘no-dig’ construction methodology where proposed hard surfaces overlap with root protection areas.

Compensation for the impact of the development, together with landscape and biodiversity enhancements can be achieved by way of the following:

- The planting of trees, shrubs and where applicable hedges as part of a comprehensive landscape scheme to replace any vegetation lost and to integrate the development into the wider landscape.

In addition to the loss of trees for the new development of the school, it is recommended that T16 and T17 be removed due to their current condition.

## **1.0 Introduction**

**1.1** Ascerta has been instructed to carry out a survey of the trees within and immediately adjacent Ysgol Gynradd, Dolgarrog Primary School, LL32 8QE 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 10<sup>th</sup> April, 2017 by Helen Sullivan, a competent and qualified arboriculturist with 8 years 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 demolishing the existing building followed by the construction of a new school building.

**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 Conway County Borough Council administrative area and is subject to the policies contained within its Local Plan. These have been taken into account when writing this report.
- 3.4** Checks made with the Local Planning Authority on 11<sup>th</sup> April, 2017 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.
- 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 part of section 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 to 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 10<sup>th</sup> April, 2017 during intermittent rainy weather conditions. Those trees surveyed have been numbered sequentially, although for the purposes of this project they have not been tagged by Ascerta, although some trees within the site boundary have been tagged previously. 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:** Eighteen individual trees and three groups of trees were recorded during our survey, the details of which can be found within Appendix 1 to this report and cross referenced with drawing P.876.17.01 *Tree Survey*.
- 5.2 Direct Impact on Trees:** The development of the site as proposed will directly require the removal of four trees, T1, T2, T5 and T19 and tree group G3 and part removal of G2 and H1. Also, it is recommended T16 and T17 are removed due to their condition. Compensation for the loss of trees and the impact on canopy cover can be provided by way of planting new trees at the landscape stage of the project.
- 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 and on supporting drawings, in order to safeguard retained trees for the long term benefit of the landscape.
- 5.4 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.
- 5.5 Potential Mitigation for Development Impacts:** Mitigation of the direct impacts from the development of the site can be provided in the form of the erection of protective fencing as indicated on the attached drawings and the use of site specific actions adopting modern methods of construction as agreed and documented within an appropriate Arboricultural or Tree Protection Method Statement.
- 5.6 Potential for Shading & Nuisance:** 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.
- 5.7 Boundary Screening:** Trees located adjacent to site boundaries generally make a welcome contribution to the screening of views, however in some cases there may be valid reasons for opening up views to enhance visibility. Where applicable, the drawings supporting this report indicate opportunities for management of boundaries in line with project aims and objectives.

## 5.0 Survey Results & Impact Assessment (Continued)

- 5.8 Long Term Spatial Constraints:** The proposed layout has been designed to meet the standards set by the local planning authority as well as current best practice guidance. Where applicable, and subject to the possibility of an element of acceptable pruning, there should generally be adequate space between new buildings and trees to limit the potential for future pressure to remove trees.
- 5.9 Existing Areas of Hard Standing:** There are a number of existing areas of hard standing to the west of the site at the front of the school building, remnants from the site's use. Where there is a risk of damage to retained trees from the proposed removal of these surfaces, appropriate controls and safeguards will need to be implemented, for example the erection of suitable protective fencing in advance of the commencement of works and the careful breaking up and removal of surfaces using tools and equipment suitable for the task without causing unnecessary damage either to above or below ground parts of trees. This element of the project should be agreed in advance and documented within a suitable Method Statement. Specific areas of concern in this regard are marked on the drawings supporting this report.
- 5.10 Existing buildings/structures to be removed:** There are a number of existing buildings associated with the current / previous use of the site that have the potential to cause significant damage to retained trees during their demolition and removal. Care will therefore be required during the demolition / remediation phase in order to safeguard those trees proposed for retention. Works should be controlled by way of an agreed methodology written into a suitable Method Statement, to include suitable physical protection and safeguarding measures for retained trees.
- 5.11 Proposed Areas of Hard Standing:** Areas where proposed hard surfaces encroach within or are immediately adjacent root protection areas of retained trees are marked on the drawings appended to this report and the extent of precautionary measures required in order to safeguard retained trees are also indicated.
- 5.12 Proposed Buildings Located Adjacent / Within Root Protection Areas:** The drawings appended to this report indicate areas where proposed built structures encroach within or are located immediately adjacent root protection areas of retained trees. The drawings also suggest appropriate measures for the safeguarding of retained trees, the final details for which should be agreed in advance and documented within a suitable Method Statement.



## 5.0 Survey Results & Impact Assessment (Continued)

- 5.13 Proposed Drainage & 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.
- 5.14 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.
- 5.15 Access Facilitation Pruning:** There may be a limited number of areas within the site where an element of access facilitation pruning may be required, as indicated on the attached drawings. 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 to this report.
- 5.16 Protection of Planting Areas:** It is often desirable to fence off areas that are to be newly planted to protect the soil structure; however, works will be required across the majority of the site, therefore there is little scope to set aside areas for such treatment. Provided that adequate provisions are made for ground preparations in advance of the landscape stage, there is unlikely to be a negative impact on the viability of newly planted stock.
- 5.17 Requirement for an Arboricultural Method Statement:** It would be beneficial to agree and implement a Method Statement for Tree Protection (an Arboricultural Method Statement) to ensure that retained trees are adequately protected from the outset and that no unnecessary harm occurs during the construction phase. Section 6 of this report contains further details of the aspects of the development that could successfully be controlled, which can in turn be subject to a suitably worded planning condition.

## 5.0 Survey Results & Impact Assessment (Continued)

**5.18 Planning for New Landscaping:** If not considered carefully at the design stage, new planting and landscaping can have an adverse impact on existing trees and cause long term problems for the built environment. Care should be taken in the design of new landscapes to prevent physical damage to retained trees during the planting process, and to ensure that schemes are designed to survive and thrive rather than compete for resources. Similarly new trees and shrubs should not be planted where they will cause damage to structures, either directly or indirectly in the future. Table A1 at Annex A of the Standard gives advice on minimum distances for new trees from structures to avoid direct damage from future tree growth. Further advice should be sought from the project arboriculturist and a suitably qualified and experienced engineer as to the potential indirect impact of trees on structures in the long term (from clay shrinkage subsidence).

## 6.0 Tree Protection Measures

**6.1** Based on the proposed layout and those trees proposed for retention, the drawings attached to this report show our preliminary recommendations for the physical protection of retained trees throughout the construction phase. The plans indicate 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.

**6.2** In addition to the erection of protective fencing, the attached drawings show areas where it would be beneficial to agree a tree protection method statement between the project arboriculturist, design & construction teams and the local planning authority tree officer. 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 excavations (including foundation excavations);
- 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.

## **6.0 Tree Protection Measures (Continued)**

**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
Trees / hedges to be removed	T1, T2, T5, T19, G3 and part removal of G2 and H1	Appropriate compensation can be provided by way of new / replacement planting at the landscape stage of the project. Biodiversity enhancements can also be achieved through the landscape proposals.
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.
Removal of existing hard standing	T3 and T4	Existing hard standing should be removed with care and no excavations permitted deeper than existing sub-base without adequate precautionary measures to prevent unnecessary damage to retained trees.
Provision of new hard surfaces	T3, T4 and T18	Suitable construction methodologies are achievable, with the use of geotextiles / porous surfaces where applicable. Careful excavations with an element of root pruning when necessary. Works in this area to be overseen by project arboriculturist.
Demolition / remediation works	T18 and G2	Buildings to be demolished carefully, removing the structures away from tree stems. Such works should be subject to a tree protection method statement.
Construction of new buildings/structures	T3, T4, T18, and two mature trees located offsite to the east boundary.	Sections of foundations within and immediately adjacent root protection areas to be excavated carefully, with machinery located outside of RPAs and roots pruned cleanly back to the soil surface when necessary. Works in these areas of the site to be subject to a tree protection method statement.
Provision of drainage / services	Unknown	Where existing services cannot be utilised, NJUG principles must be adopted to and adhered to.
Access Facilitation Pruning	T3 and T4	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.	

## **7.0 Summary of Impacts & Potential Mitigation Factors (Continued)**

- 7.2** On the basis of the above and the contents of this report, it is considered appropriate that a Method Statement for Tree Protection be prepared to demonstrate how trees proposed for retention can be suitably safeguarded. The Method Statement can be secured by way of an appropriately worded planning condition attached to the consent for the development and should be adopted as a control document by site personnel.

## **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. Where trees are proposed for removal, replacement planting should be considered as part of a landscape strategy for the site in line with local plan requirements and to integrate the development into the surrounding landscape. Arrangements for the safeguarding and physical protection of retained trees should be agreed and implemented in a manner consistent with current best arboricultural management practices to minimise any potentially negative effects on long term tree cover.
- 8.2** We recommend that tree protection measures are implemented in accordance with finalised versions of the drawings appended to this report and that a tree protection / arboricultural method statement be prepared and implemented to safeguard those trees proposed for retention.

## 9.0 References

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


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*.

# Ascerta

Landscape, Arboricultural & Ecological Solutions  
for the Built Environment

# Appendix 1

Site:	<b>P.876.17 Caerhun School, Dolgarrog</b>	Surveyor:	<b>Helen Sullivan</b>	 Landscape   Trees   Ecology
Client:	<b>Pure Commercial</b>	Survey Date:	<b>10<sup>th</sup> April, 2017</b>	
Brief:	<b>Tree Survey to BS5837:2012</b>	Survey Conditions:	<b>Intermittent Rain</b>	

T. No	Species	Ht (m)	Stem DBH (mm)	RPA Radius (m)	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
					N	S	E	W							Grade
T1	Cypress	10	450	5.40	2	2	3	2	1	M	F	Bifurcates at 4m. Balanced form.	To be removed for development	30	<b>C1</b>
T2	Lombardy Poplar	14	170	2.04	0.5	0.5	0.5	0.5	5	EM	P	Reduced vigour. Old pruning wound and associated decay at base.	To be removed for development	<15	<b>C1</b>
T3	Lime	9	510	6.12	6	5.2	5.3	5	3	M	G	Bifurcates at 2m. Good balanced form. Vigorous growth. Hardstanding surrounding main stem. Boundary feature.	Access Facilitation Pruning maybe required	20+	<b>B1</b>
T4	Beech	9	790	9.48	7	7	8.9	9	2.5	M	G	Good Form. Vigour. Balanced crown. Good boundary specimen. Hardstanding surrounding main stem. Surface roots damaging tarmac.	Access Facilitation Pruning maybe required	30+	<b>A1</b>
T5	Cherry Laurel	5	240 250 280	5.34	3	3	3	3	1.0	M	F	3 Stems. Bark damage on one stem. Bleeding canker. Boundary tree.	To be removed for development	<15	<b>C1</b>
T6	Elm	5	680	8.16	8	10	1	7	3	M	F	Crown suppressed by T7. Bifurcates at 2m. Deadwood. Prominent feature on site.	No work required at this time	20	<b>B/C2</b>
T7	Lime	14	690	8.28	10	6	5	7	3	M	G	Good balanced form. Epicormic at base. Prominent feature on site.	No work required at this time	30	<b>B2</b>
T8	Beech	16	900	10.80	12	12	12	5	3	M	G	Good form. Vigorous growth. Prominent feature on site.	No work required at this time	30+	<b>A1/2</b>
T9	Birch	14	680	8.16	8	8	8	8	2	M	G	Balanced form. Bird box in tree. Good vigorous growth.	No work required at this time	20+	<b>B1</b>
H1	Cypress	4	170#	2.04	1	1	1	1	1	EM	F	Recently reduced in height to 2m to the North end of hedgerow	Part removal required for development (bat house)	20+	<b>C2</b>
T10	Birch	7	150#	1.80	1.5	1.5	1.5	1.5	1.5	EM	F	Located in hedgerow. Balanced form.	No work required at this time	30+	<b>C1</b>
T11	Ash	8	370#	4.44	3	3	3	3	2	EM	F	Located in hedgerow. Stem Ivy covered. Minor deadwood in	No work required at this time	30+	<b>B1</b>

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



Site:	<b>P.876.17 Caerhun School, Dolgarrog</b>	Surveyor:	<b>Helen Sullivan</b>	 Landscape   Trees   Ecology
Client:	<b>Pure Commercial</b>	Survey Date:	<b>10<sup>th</sup> April, 2017</b>	
Brief:	<b>Tree Survey to BS5837:2012</b>	Survey Conditions:	<b>Intermittent Rain</b>	

T. No	Species	Ht (m)	Stem DBH (mm)	RPA Radius (m)	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
					N	S	E	W							Grade
T12	Eucalyptus	9	660#	7.92	3	3	3	3	0.5	M	G	crown. Boundary tree. Boundary.feature. Good. Vigour.	No work required at this time	20+	<b>B1</b>
G1	Elm, Maple, Ash and Holly	11 8	100 270	1.20 3.24	3	3	3	3	2	M	F	Poor specimens self seeded Maple/Ash. Ivy covered stems. Suppressed by larger trees.	No work required at this time	20+	<b>C2</b>
T13	Fir	15	440	5.28	3	3	3	3	2	M	F	Ivy covered stem. Birds nest in tree.	No work required at this time	20+	<b>B/C2</b>
T14	Fir	21	580	6.96	3	3	3	3	3	M	F	Ivy covered stem. Good form and vigour. Bird box.	No work required at this time	20+	<b>B2</b>
T15	Fir	21	620	7.44	3	3	3	3	3	M	F	Ivy covered stem. Good form and vigour. Bird box.	No work required at this time	20+	<b>B2</b>
T16	Willow	11	630	7.56	3	3	3	3	6	M	P	Previously poorly pruned. Associated regrowth at pruning wounds. Large cavity at base (NW) side. Stem Ivy covered. Phellinus bracket fungi found on floor.	Fell for Health and Safety	>20	<b>C2</b>
T17	Poplar	11	660#	7.92	3	3	3	3	6	M	P	Ivy covered stem. Large limb recently failed. Previously reduced, associated regrowth at pruning wounds	Fell for Health and Safety	>20	<b>C2</b>
G2	Holly, Ash, Laurel, Elm, Hawthorn and Oak	17	150 650#	1.80 7.80	5	5	5	5	2	EM/M	F	Some mature trees in group located off site.	Part removal required for development	30+	<b>B/C2</b>
G3	Ash and Blackthorn	7	170 250	2.04 3.00	2	2	2	2	1	EM	F	Poor specimens. Reduced vigour. Off site.	To be removed for development	30	<b>C2</b>
T18	Oak	12	690	8.28	4	4	4	4	2.5	M	F	Balanced crown form. Decreased vigour.	No work required at this time	20+	<b>B1</b>
T19	Lombardy Poplar	6	100#	1.20	0.5	0.5	0.5	0.5	2	EM	D	Dead. Standing.	To be removed for development	-	<b>U</b>

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

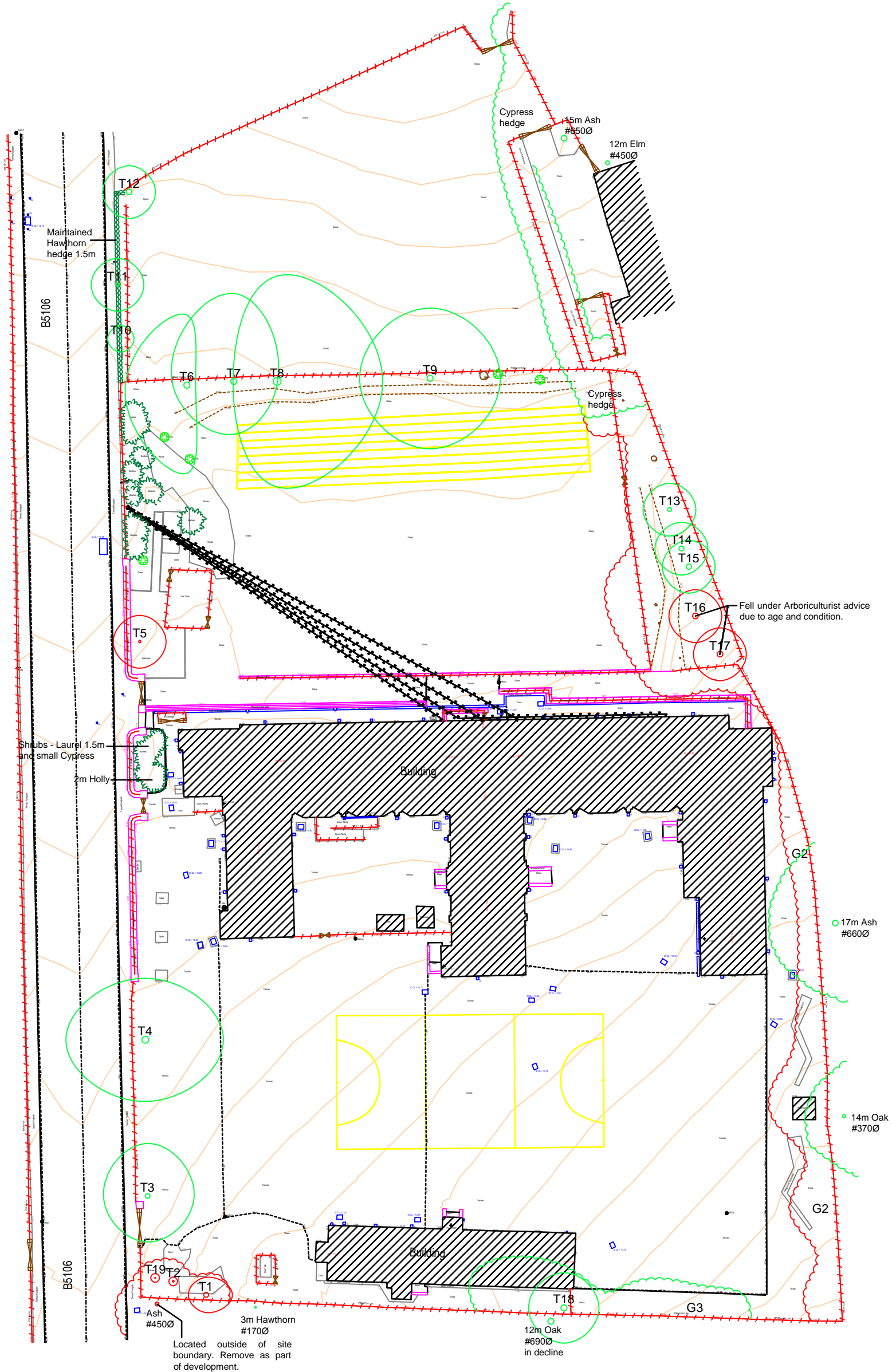
Species: Common name used  
Root Protection Area Radius: Root Protection Area as per BS5837: 2012  
Age Class: Y = Young, EM =Early Mature, M = Mature, OM = Over mature, D = Dead  
Preliminary Recommendations: Made in respect of known / intended use of the site  
\* For groups of trees, the stem diameter 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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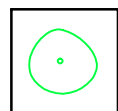
## Appendix 2



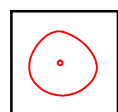
ALL COORDINATES RELATED TO LOCAL GRID LOCATED TO OS NG BY BEST FIT TO DETAIL, EXTRACTED FROM OS DIGITAL DATA.

REV	DESCRIPTION	DATE
A	General updates	21/04/17

**KEY**



Existing tree to be retained



Existing tree to be removed

# Ascerta

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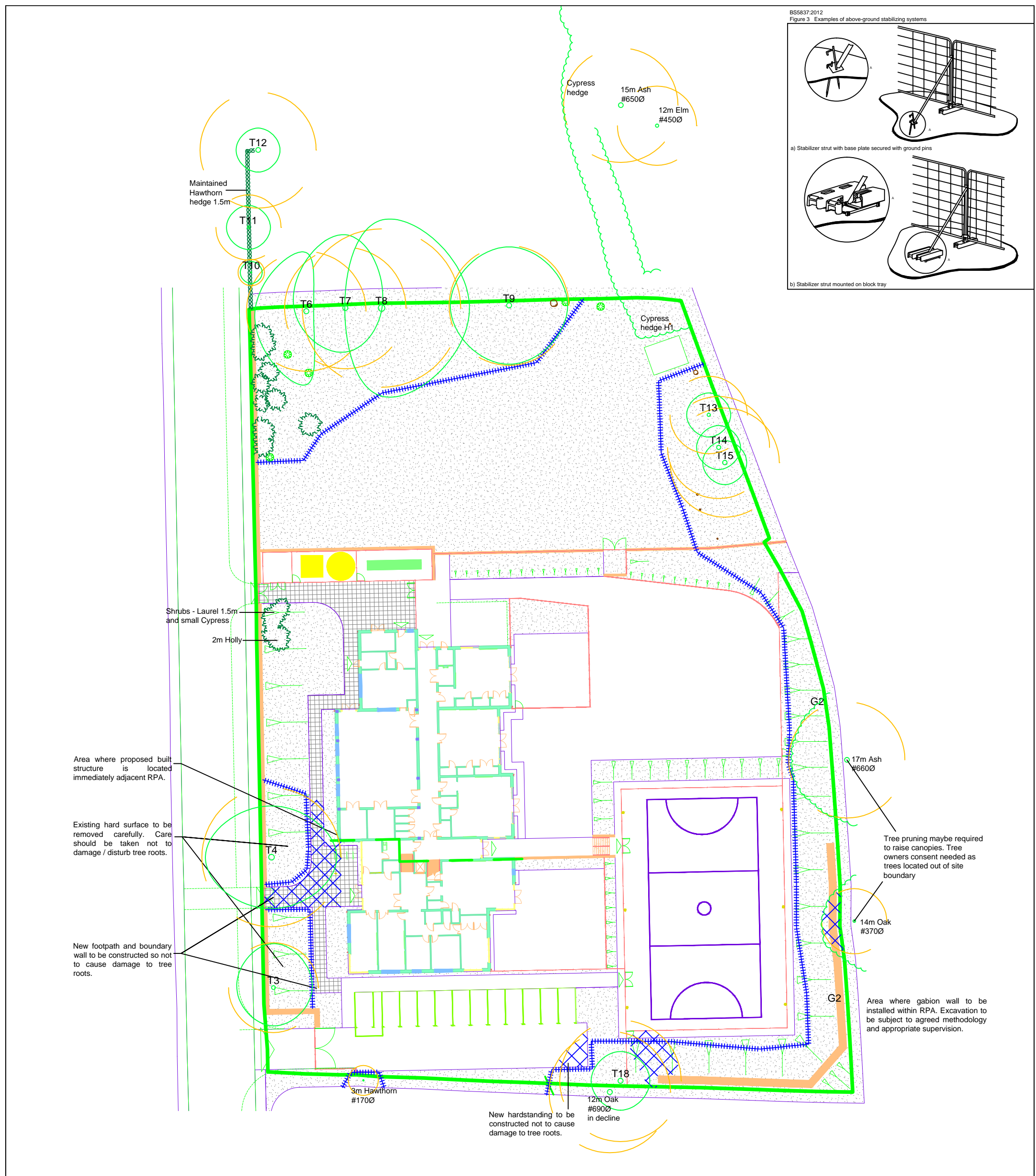
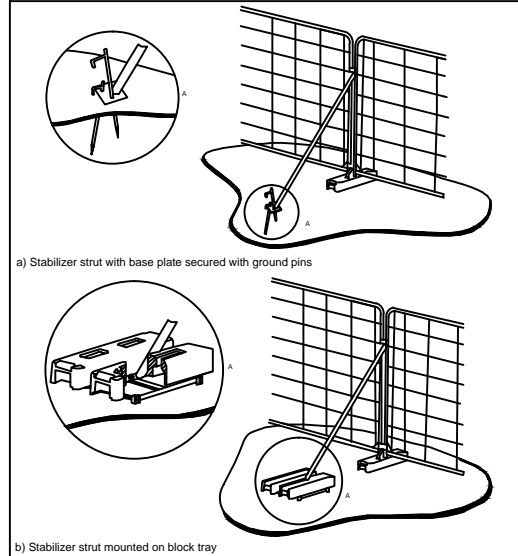
PROJECT:  
Caerhun School, Dolgarrog, LL32 8QE

DRAWING TITLE:  
Tree Survey

SCALE: 1:500 @A3	DRAWN BY: CP	DRAWING No: P.876.17.01	REV: A
DATE: 10/04/2017	CHKD BY: HS		

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REV	DESCRIPTION	DATE
A	General updates	21/04/17

CLIENT:  
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PROJECT:  
Caerhun School, Dolgarrog, LL32 8QE

DRAWING TITLE:  
Tree Constraints & Draft Protection Drawing

SCALE: 1:500 @A3  
DRAWN BY: CP  
DATE: 10/04/2017  
CHKD BY: HS  
DRAWING No: P.876.17.02  
REV: A

**KEY**

- Existing tree to be retained
- Proposed location of protective fencing - see inset for type / construction detail
- Extent of Root Protection Area for retained trees in accordance with BS5837: 2012 *Trees in relation to design, demolition and construction - Recommendations*
- Root protection methodology to be agreed in these areas. Geotextiles/ porous surfacing to be agreed / implemented

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