Visual Tree Condition
&
Risk Assessment

Bridgeman Coach House
Bangor on Dee
Wrexham

Ref:
VTA/BHB/01/24

Date:
9th January 2024

Commissioned by:
Mrs D. Vogwell

Prepared by
S. Shields

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Instruction

1.1 Shields Arboricultural Consultancy received instructions from Mrs D. Vogwell to undertake an inspection of the trees at Bridgeman Coach House.

1.2 The assessment covered all trees within the garden area.

1.3 The purpose of the survey was to provide an assessment of the condition of the trees and provide advice regarding any works required to the trees to ensure that they are maintained in as safe a condition as is reasonably practicable.

Introduction

2.1 It is recommended that all tree owners should have their trees inspected for safety purposes on a periodic basis. The frequency of these inspections will depend on the location of the tree in relation to roads, footpaths, public areas and buildings or structures. This is confirmed by HSE guidance relating to managing the risk of falling trees which states that '*there is the duty to do all that is reasonably practicable to ensure that people are not exposed to risk to their health and safety. Doing all that is reasonably practicable does* ***not*** *mean that all trees have to be individually examined on a regular basis. A decision has to be taken on what is reasonable in the circumstances and this will include consideration of the risks to which people may be exposed*.'

Scope and Limitations of the Survey

3.1 The survey was undertaken 28th November 2023 by Stephen Shields, principal consultant with Shields Arboricultural Consultancy.

Methodology

3.2 The survey was carried out in accordance with the principals of tree inspection and assessment described in Lonsdale 1999 and using Visual Tree Assessment (VTA) techniques as described in Mattheck & Breloer 1994. This term describes an approach to tree surveying using visual observation which allows the surveyor to evaluate the stability and structural condition of a tree. The basis behind VTA is the identification of symptoms, which the tree produces in reaction to, for example, a weakness in its structure, or as a result of external stress factors e.g., drought.

3.3 The trees were inspected from the ground level using field glasses and basic equipment such as a soft faced hammer and steel probe. Where required a F-400 Resi-drill was used to examine the internal quality of the wood. The inspection followed a set procedure; firstly, the site conditions are assessed to establish if any environmental factors are present that could affect the stability of the trees. This includes an evaluation of the soil conditions to establish if there are any aspects that could inhibit root growth, such as water logging or shallow soils. The exposure and elevation of the site are considered along with any changes to the tree's environment that could affect the tree. Next the root plate and area around the tree are visually inspected for signs of instability or decay,

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followed by a visual examination of the trunk and branch structure to identify structural defects or decay. Finally, the vitality of the tree is assessed, and any significant pest and diseases identified. Where defects or health issues were identified, these are noted in the report and any required remedial measures recommended. Where no comment is made, it can be assumed that no defects were identified.

3.3 The findings of the survey are limited to the date of inspection. The seasonal nature of fungal and decay organisms and other symptoms of stress such as late or early leaf emergence or fall means that indicators of disease and decay may not have been present on the date of inspection.

3.4 The risk assessment evaluates the risk of failure in all weather conditions up to and including Beaufort Scale Gale Force 8. All trees are at risk of failure through exceptional weather conditions.

3.5 Where solutions to arboricultural problems are specified which require the usage of a third-party product e.g., no dig roadway construction, tree bracing products. No liability is assumed for the performance or suitability of the product and specialist advice as to the suitability or installation of the product should be sought from the manufacturer or other specialist. No responsibility is assumed by Shields Arboricultural Consultancy for legal matters that may arise from this report, and the consultant shall not be required to give testimony or to attend court unless additional contractual arrangements are made. Any alteration or deletion from this report shall invalidate it as a whole.

Statutory Controls & Obligations

4.1 Forestry Act; the felling of trees is controlled under Forestry Act, which requires that a felling licence is obtained prior to cutting down any trees. The Forestry Act does not apply to the felling of trees growing within an orchard, private garden, churchyard or public open space. Natural Resources Wales has the responsibility for enforcing the Forestry Act.

4.2 Tree Preservation Orders & Conservation Areas; Local Authorities have specific powers to protect trees through the use of Tree Preservation Orders. Where trees are protected under such orders it is a criminal offence to (subject to any exemptions for which provision may be made by the order) undertake, cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of trees except with the consent of the local planning authority. Similar controls apply to all trees growing within a designated Conservation Area.

4.3 Bats, wild birds and other protected species; The Wildlife & Countryside Act & the Conservation (Natural Habitats & C.) Regulations make it an offence to disturb or destroy bats and bat roosts and wild birds and their nests. Other species of plant and animal are also protected. These creatures often inhabit trees and sufficient care must be taken to ensure they are not affected during forestry and arboricultural works.

4.4 Other restrictions and controls may be in force in sensitive areas such as SSSI's and Ancient Woodlands.

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Description of Site

5.1 Bridgeman Coach House is a detached two-story dwelling that has recently been renovated. It is close to the River Dee and to the north of Bridgeman House, Bangor on Dee. The coach house stands in its own private garden which extends to 4300m^2 and is level and at an elevation of 75m AOD. There are a number of trees in and around the site, particularly around the north, west and east boundaries. There are also substantial trees within the site.



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Soils

5.2 The site is reasonably free draining and geological maps indicate sand and gravel deposits over an underlying sandstone lithology.

*NB. This soil assessment is undertaken in situ using visual and manual techniques and is **only** for the purpose of establishing the influence of site soils on tree growth. The assessment **must not** be relied upon to inform any engineering decisions.*

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Tree Survey Findings and Recommendations

Summary of Tree Work

Tree Tag#	Operation	Priority
T5, T7, T11, T18*,	Fell and replace	High
G15	Silvicultural thinning	Moderate
T3, T9, T14	Remove unstable deadwood / Damaged or broken branches	Moderate
TT3, T10, T20	Monitor	Moderate

6.1 All trees are assessed and those requiring work or monitoring or with minor defects are recorded. Full details of the tree inspections are provided in the Arboricultural Inspection Record, along with work recommendations.

6.2 Ensuring that the trees within the site remain in a reasonably safe condition, can normally be achieved through periodic inspections and monitoring of trees that may have progressive defects. In addition to inspections by the owner it is recommended that a professional inspection is undertaken every 24 months or after any storm where wind speeds exceeded gale force 8 or where damage is noted.

6.3 The management of aerial deadwood should be given careful consideration. This provides an important habitat and is an integral part of a woodland or arboreal habitat. Deadwood should only be removed where there is a high value target, such as over buildings, roads and well-used footpaths, seating areas or high use areas and it is large and unstable, in excess of 50mm diameter and / or 1m in length unless it is reasonable robust.

Tree Health & Condition General Assessment

6.4 The trees vary in age and species, other than the trees individually recorded the overall structural condition of the trees is good, and only work is required to identified trees.

6.5 In the main, the physiological condition of the trees is also good and, with the exception of Chalara die-back of ash (*Hymenoscyphus fraxineus*), no significant pest or diseases were noted.

Management of Ash Dieback and Recovery Planning

6.6 There are two ash trees within the area with indications of Chalara die-back of ash (*Hymenoscyphus fraxineus*). This disease, which is now well-established across the UK, is a fungal pathogen that initially causes dieback of shoots of the affected tree but eventually leads to tree death. Once a tree is infected there is no cure available, and it will progress through stages of dieback until the tree dies. Usually this takes around 4 – 5 years from the initial infection, but this depends to some extent on the size, age and vitality of the tree concerned.

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6.7 Current guidance advises that the presence of ash die-back in a tree or crop is not a reason to embark on the removal of living trees or to undertake pre-emptive felling, however it is recommended that the ash component be removed progressively as part of the management of the trees on the site.

S.J.A. Shields

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9th January 2024

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Arboricultural Inspection Notes & Recommendations

Location: *Bridgman Coach House, Bangor on Dee*
Weather: *Clear, Calm.*

Date: *28th November 2023*
Surveyor: *Stephen Shields*

Tree ID #	Species	Age Class*	Size Class*	Struct Con	Health & Vitality	Notes from Inspection	Haz Rat
T1	Aesculus hippocastanum (Horse Chestnut)	M	L	Good	Good	Crown distorted due to group pressure from adjacent trees resulting in an unbalance crown shape. Tree forms visual and aerodynamic group with T2 & T3. These trees should be managed as a group. **Recommendation**: No work required.	300k Low
T2	Aesculus hippocastanum (Horse Chestnut)	M	L	Good	Good	Multi-stem tree. Crown distorted due to group pressure from adjacent trees resulting in an unbalance crown shape. Tree forms visual and aerodynamic group with T1 & T3. These trees should be managed as a group. **Recommendation**: No work required.	300k Low
T3	Aesculus hippocastanum (Horse Chestnut)	M	L	Good	Good	Crown distorted due to group pressure from adjacent trees resulting in an unbalance crown shape. Tree forms visual and aerodynamic group with T1 & T2. Major bark wounding on stem in the form of strips that are now becoming calloused over. These are possible from canker infection or from the result of drought stress but are not structurally significant. Fungal brackets, possibly *Flammulina velutipes* (Velvet Shank), are present on one area associated with the damaged bark. At this time the decay is not impacting the structural wood and is confined to a limited volume of dysfunctional sapwood. Major deadwood in present in the crown. **Recommendation**: Monitor decay on tree and consider remove of unstable deadwood.	300k Low
T4	Acer platanoides (Norway Maple)	EM	S	Fair	Fair	Small tree with damage to bark on stem. Slightly suppressed by adjacent horse chestnut trees, which may impact on long term viability in this location. **Recommendation**: No work required.	<1M V. Low

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T5	Fraxinus excelsior (Ash)	M	L	Good	Fair	Crown distorted due to group pressure from adjacent trees resulting in an unbalance crown shape. Tree has symptoms of ash dieback and there is major deadwood in crown. **Recommendation**: Consider removing tree as part of long-term management of the site.	100k Low
T6	Quercus cerris (Turkey Oak)	M	VL	Good	Good	No significant defects noted. **Recommendation**: No work is required.	<1M V. Low
T7	Acer pseudoplatanus (Sycamore)	OM	S	Poor	Fair	Poor shape & form resulting from past failure of main stem. The tree is displaying low vitality and is declining. Decay present on stem. **Recommendation**: Consider removing tree as part of long-term management of the site.	10K Mod / High
G8	Ilex aquifolium (Holly)	M	S	Good	Good	No significant defects noted. **Recommendation**: No work required.	<1M V. Low
T9	Salix X chrysocoma (Weeping Willow)	M	M	Fair	Good	Stem divides above 1.5m. Broken branches in crown. **Recommendation**: Remove broken branches.	<1M V. Low
T10	Acer platanoides (Norway Maple)	SM	S	Fair	Fair	Has lost part of main stem in high winds. **Recommendation**: Monitor condition of tree.	<1M V. Low
T11	Acer pseudoplatanus (Sycamore)	M	VL	Fair	Fair	The tree is displaying low vitality and is declining with poor shoot extension and bud density and significant levels of deadwood in the crown. The tree has been overrun with ivy. There is decay present in the main stem and in the primary branches extending over the adjacent footpath. **Recommendation:** Remove tree.	10k Mod / High
T12	Acer platanoides (Norway Maple)	SM	S	Fair	Fair	**Recommendation**: No work required.	<1M V. Low
T13	Acer platanoides (Norway Maple)	EM	M	Fair	Fair	Some damage to bark on main stem at base. This is occulding and there is no decay in the underlying wood. **Recommendation**: No work required.	<1M V. Low
T14	Acer pseudoplatanus (Sycamore)	M	VL	Fair	Fair	High value tree that is a prominent feature of the local landscape. Some ivy on tree. Major deadwood in crown. Old tree surgery with potential decay in primary branches from wound site. Over-extended branches. **Recommendation**: Remove unstable deadwood and control ivy.	100k Low
G15	Acer campestre (Field Maple)	EM	S	Good	Fair	Small group of trees, would benefit from silvicultural thinning. **Recommendation**: Undertake thinning of group removing paint marked trees.	<1M V. Low

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	Betula pendula (Silver Birch) Sorbus aucuparia (Rowan)						
T16	Robinia pseudoacacia (Locust Tree)	EM	M	Good	Good	**Recommendation**: No work required.	<1M V. Low
G17	Chamaecyparis lawsoniana (Lawson Cypress	M	M	Good	Good	Linear group of trees providing a screen. **Recommendation**: No work required.	<1M V. Low
T18	Fraxinus excelsior (Ash)	M	L	Fair	Fair	Large, prominent tree located within raised bed, near to dwelling. Tree divides into two main stems from ground level. No indication f decay or mechanical instability in union. Tree has early symptoms of ash dieback and there is major deadwood in crown. **Recommendation**: Consider removing tree as part of long-term management of the site and before it is compromised by ash dieback. Alternatively remove unstable deadwood and monitor tree's condition.	30k Mod
G19	Mixed	M	M	Good	Good	Mixed group of trees and shrubs, including fir tree with poor stem taper. **Recommendation**: Remove fir tree.	<1M V. Low
T20	Acer platanoides (Norway Maple)	M	L	Fair	Good	Past stem breakage has resulted in damage to the main stem allowing decay to establish. The structural integrity of the tree is not compromised at this time. **Recommendation**: No work required, monitor tree.	<1M V. Low

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KEY

Size Class Stem

S	Less than 5m height and / or 150mm trunk diameter
M	5m– 15m height and /or 150mm – 500mm trunk diameter
L	16m – 25m height and / or 501mm -1000mm trunk diameter
VL	Over 26m height and or over 1001mm trunk diameter

Age Class:

NP -	New Planting less than 5 yrs
Y -	Young Trees less than 1/3 life expectancy
EM -	Early Mature 1/3 – 2/3 life expectancy
M -	Mature over 2/3 life expectancy
OM -	Late Mature exceeds normal life expectancy for species
VET -	Veteran Tree has characteristics of veteran tree, see Read (2000)

Health & Vitality:

Good -	No significant health problems
Fair -	Some health problems that will reduce vitality
Poor -	Significant health problems that are affecting the tree's ability to survive
Dead -	Dead

Structural Conditions:

Good -	No significant faults
Fair -	Some faults that can be rectified through surgery
Poor -	Major faults that cannot be rectified through surgery
Env -	Environment in which the tree stands.

Hazard Rating:

Green -	Very Low
Yellow -	Low
Orange -	Moderate
Red -	High
Red*-	V. High

Numeric rating refers to QTRA score (1K = 1000 – 1M = 1000000). E.g. 60K = 1 in 60000.



Shields Arboricultural Consultancy

Tree & Woodlanc Management Solutions

Tree Location P an

Bridgeman House
Bangor on Dee
Wrexham

Tree Location

Buildings & Structures

Drawing No: BHB/TLP/01/24

Drawn By: S. Shields

Scale: 1:500 @ A2

Date: 9:h January 2024

Revsion:

Do not scale from this drawing all dimensions to be checked on site
Drawing is colour coded and a monochrome copy should not be relied upon

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