

Arboricultural Impact Assessment.

Land adjacent to Brynheulog St Clears



**Prepared on the instructions of
Mr H Morgan**

**Based on inspections carried out on
13th November 2021**

**By Alan Webster, MArborA
Our Ref: ARW 1116 AIA**

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1	Arboricultural Impact Plan	ARW1116:01
		ARW1116:02
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1 Introduction

- 1.1 **Instruction:** I am instructed by Mr Morgan of Obsidian Homes Ltd to provide a tree survey and arboricultural impact assessment in accordance with BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*, to support a planning application on land adjacent to Brynheulog, St Clears. I am also to provide a tree protection plan and arboricultural method statement to provide mitigation for any impacts to trees.
- 1.2 **Qualifications and experience:** I have based this report on my site observations and the provided information. I have come to conclusions in the light of my qualifications and experience in arboriculture summarised in Appendix 1.
- 1.3 **Documents and information provided:** Pembroke Design Ltd provided me with copies of the following documents:
- Topographical Survey in DWG
 - Proposed Site Layout in DWG
- 1.4 **Scope of this report:** This report concerns the trees and their environment on and adjacent to the proposed development site, in accordance with British Standards Institute, BS 5837: British Standard for trees in relation to design, demolition and construction- Recommendations (2012).
- 1.5 **Report limitations:** This report is valid at the time of the inspection; deliberate or accidental harm, severe weather conditions, pests and diseases can all effect change in the condition of trees.
- 1.6 **Copyright:** All rights in this report are reserved. Its content and format are for the exclusive use of Obsidian Homes Ltd and their Agents for the purpose of developing the site. No part of it may be reproduced or transmitted, in any form or by any means without our written consent. ©ARW Tree Consultancy 2021.

2 Site visit

- 2.1 **Site visit:** I carried out my unaccompanied site visit on the 13th of November 2021. All my observations were from ground level without detailed investigation and I estimated all dimensions unless otherwise indicated. The weather at the time of my inspection was dry and clear allowing good visibility.
- 2.2 **Site description:** The A40 links Carmarthen with St Clears and Pembrokeshire. Where the A40 forks with the A477 at St Clears, High Street heads south. The proposed site sits to the south of the A40 and west of High Street. Lon Fair borders the site along its southern boundary.
- 2.2.1 The site sits on higher ground than the A40 and an embankment extends down to the carriageway along the northern boundary of the site. The site itself is reasonably level.
- 2.2.2 The site currently is arable fields and is accessed off High Street on the eastern boundary.
- 2.2.3 The site has a group of four mature trees located on the southern boundary. The embankment along the side of the A40 has been planted with native species along the northern boundary. Four semi mature lime trees are present on the roadside adjacent to the entrance off High Street.
- 2.3 **Identification and location of the trees:** The trees in question are shown on the tree location plan included as Drawings ARW 1116:01, ARW 1116:02 and ARW 1116:03. This plan is for illustrative purposes only and it should not be used for directly scaling measurements. All the relevant information on it is contained within this report and the provided documents.
- 2.4 The Local Authority has not been approached to check for statutory tree protection. Before doing any work to trees on site the protection status should be checked.

3 Observations

- 3.1 **Development plan:** The proposal is for 67 dwellings with site road, public open space and a L.A.P.
- 3.2 **Trees:** The surveyed trees were assessed either as individuals or as groups where appropriate.
- 3.3 **Root morphology:** *Tree roots will exploit the most suitable conditions that they can find, migrating to ideal conditions i.e. nutrient levels and available water. Obstructions or poor conditions will force roots to grow alongside, around, under or over.*
- 3.3.1 Trees T1, T2, T3 and T4 are located on the edge of the site and are on a steep drop off down to the road. Therefore, the root protection areas have been off set to depict a greater root distribution into the field.

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- 3.3.2 The location of the trees along the northern boundary have been estimated, their RPAs are shown not to enter the site and this is a reasonable assumption notwithstanding their locations due to a drainage channel at the top of the embankment.
- 3.4 **Branch spread:** Generally symmetric.
- 3.5 **Wildlife:** I did not observe any suitable features that could be used as bat habitat during my survey.

4 Arboricultural Impact Assessment

The following impact assessment is based on the provided Proposed Site Plan.

- 4.1 **Tree removal:** Trees in the table below should be removed for reasons of good arboricultural management and their removal should not be considered when determining the proposal.

Tree	Reason for removal
T12	Ash, poor condition due to ash die back. Off site.
T14	Ash, poor condition due to ash die back. Off site.
G2	Ash, poor condition due to ash die back. Off site.

- 4.1.1 The following trees will be removed to facilitate the development.

Tree	Reason for removal	Category
T4	Sycamore, roots affected by attenuation basin.	C
T5	Lime, to facilitate enlarged access	C
T6	Lime, to facilitate enlarged access	C

- 4.1.2 The tree removals required will have no impact on the retained trees.

- 4.2 **Effects of new development on amenity value on or near the site:** The removal of the trees listed above will have a **minor impact** on visual amenity as they are not significant landscape features and can be mitigated in the short term due to their size and maturity.

4.3 **Direct impact to retained trees**

4.3.1 There are no direct above ground impacts to the retained trees.

4.3.2 The direct below ground impacts to the trees are listed below.

Trees	Below ground Constraint	Impact
T1 T3	The root systems of these trees prevent excavation for hard standing and installation of equipment and fencing.	Excavation will sever roots and cause compaction of the ground reducing water and nutrient uptake which in turn reduces photosynthesis and potential energy production. However, there the risks can be mitigated by suitable construction techniques and taking into account the species of tree involved.
T7 T8	Root systems of these trees prevent the excavation for the proposed attenuation basin.	Excavation within the RPA will sever roots. This will affect the water and nutrient uptake of the trees which in turn reduces photosynthesis and potential energy production. Ideally the basin should be moved to outside of the RPAs. However, these trees could be retained with some mitigation pruning to balance root loss.
T3	Soil containing root system of this tree could be compacted from repeated pedestrian movements in LAP.	Compaction of soil would lead to reduced oxygen available in the soil and an adverse effect on the trees health.

4.3.3 The exaction that has already occurred on site is not expected to have a significant effect on the retained trees.

4.4 **Construction processes of the proposed development:** *Development processes that lead to soil compaction in tree rooting zones and physical damage to trees can adversely affect long-term tree health. This can lead to unnecessary tree loss if not controlled properly on site during the construction.*

4.4.1 Ground compaction caused by movements of construction traffic and indiscriminate storage of materials could have a **high impact** on all the retained trees. Uncontrolled vehicle and pedestrian movements in the root protection areas of the trees' will compact the pore space in the soil, reducing the trees ability to uptake water, nutrients and its ability for root growth, thus leading to their premature decline and eventual death if they are not protected during construction.

- 4.4.2 Compaction to the soil and direct damage to the trees can be prevented by using protective fencing and ground protection in accordance with industry guidance.
- 4.5 **Modifications proposed to accommodate trees:** The moderate impact on trees T7 and T8 can be removed by making the proposed adjacent to them smaller, i.e. not affecting the RPA of these trees. However, due to the category of the trees this should only be accommodated if it does not affect the schemes deliverability.
- 4.5.1 The LAP should be surfaced with wood chip to mitigate potential compaction within the RPA of trees T1 and T3.
- 4.6 **Infrastructure requirements:** Not applicable.
- 4.7 **Proximity of trees to structures / change of use:** Introducing members of the public close to the existing tree stock increases the likelihood of injury if a tree failure was to occur.
- 4.7.1 The LAP is under the periphery of the canopy of T3 and the tree will require on-going risk assessment.
- 4.7.2 The ash trees to the north of the site are likely to disintegrate and / or fall. These must be removed prior to occupation of the site.
- 4.8 **Services:** Any services are assumed to follow the access road.
- 4.8.1 Drainage, water and electric will need to be placed outside the RPA of all trees wherever possible. Services may enter RPAs where the trees have a contiguous rooting environment that will compensate for any disturbed RPA.

The potential impacts of the development on the retained trees and vice versa can be adequately controlled by a suitable arboricultural method statement and tree protection plan.

5 Contacts

Consultant Arboriculturist: A. Webster, ARW Tree Consultancy 07974 303558

Written by:

Alan Webster, MArborA
for and on behalf of ARW Tree Consultancy

Date: 15/11/2021

Appendices

Appendix 1

Qualifications and experience of Alan Webster

1. Academic qualifications:

Level 3 **Technicians Certificate in Arboriculture**: ABC

Level 6 **Professional Diploma in Arboriculture**, units:

- Tree risk management
- Tree and hedge management
- Selection, planting and design with hardy nursery stock for amenity and landscape purposes
- Arboricultural plant health
- Planning and development in arboriculture
- Management of special trees
- Woodland management
- Independent research project

2. Practical experience:

2003 – 2005

Freelance Chainsaw Operator. Mainly working as a Groundsman for TreeWorks (West Wales) Ltd. Duties including woodland felling and ground based arboricultural operations, in the private and commercial sector.

2005 - 2009.

Groundsman progressing to Lead Climber and Arboricultural Contracts Manager in 2007. Employed by TreeWorks (West Wales) Ltd. Continue to lead arboricultural team and control all chainsaw related operations within countryside teams. Made responsible for management and implementation of company Health and Safety systems.

2009- 2014.

Consultant Arboriculturist and Technical Director. Employed by TreeWorks (West Wales) Ltd, undertaking Tree Surveys and Health & Safety Management.

2014 – Present

Independent Arboricultural Consultant. Trading as ARW Tree Consultancy. Providing advice on risk assessment, development site issues and boundary disputes.

2015 – 2016

Tree Officer for Basingstoke and Deane Borough Council. Responsible for risk assessing Council trees, advising Development Control on trees in relation to planning, maintenance of TPO's and applications, managing project work where trees were identified as a problem.

2016 – Present

Tree Officer (Planning) City and County of Swansea Council. Advising Development Control on trees in planning context, representing the Council in planning appeals and hearings, TPO review, creation and determination.

- 3. Professional qualifications and continuing professional development:**
- 2007 **Certified Arborist**- International Society of Arboriculture (ISA).
 - 2008 **Arboriculture and Bats**- LANTRA.
 - 2008 **Managing Safely**- Institution of Occupational Safety and Health (IOSH).
 - 2009 **Thorough Examination of Arboricultural Equipment** (LOLER '98 regs.)- NPTC.
 - 2010 **Level 2 Computer Aided Design**. – City and Guilds.
 - 2010 Recertification, **Certified Arborist**- (ISA).
 - 2010 **VTA Update Seminar** - Prof. Claus Mattheck/Symbiosis Consulting
 - 2010 **Quantified Tree Risk Assessment** – Mike Ellison
 - 2011 **Professional Tree Inspection** – Arboricultural Association/Lantra
 - 2011 **AA Getting to Grips with Subsidence** – Dr. P.G. Biddle and Dr. M. Dobson
 - 2012 **AA Arboricultural Consultancy** – Jim Quaife and Jeremy Barrell
 - 2012 **46th AA Amenity Conference** – Reading University
 - 2013 **AA Pests and Diseases Road Show** – Guy Watson and Ben Abbatt
 - 2013 **C.A.S. Experts Question Time- Tree Safety** – Jeremy Barrell and Dr. David Lonsdale.
 - 2013 Recertification, **Certified Arborist**- (ISA).
 - 2015 **PACE training** - PHF Training, Kevin Hall
 - 2015 **4th Big Barn Conference** – Barchams
 - 2015 **AA Valuing and Managing Veteran Trees** – Simon Cox
 - 2015 **Green Blue Urban Seminar**
 - 2015 **HTOF Subsidence Seminar** – Dr. P.G. Biddle
 - 2015 **Tree Preservation Orders, Effective Application** - CAS
 - 2016 **Trees in development** – AA –Barrell Tree Consultancy
 - 2016 **Role of the Tree Officer** – AA – Richard Nicholson
 - 2016 **Habitat Regulations in the Planning Process**
 - 2016 **Environment (Wales) Act 2016** – Natural Resources Wales
 - 2017 **Assessment of Tree Forks** – AA – Dr. Duncan Slater
 - 2018 **Aspiring Registered Consultants Day** – AA
 - 2018 **Tree Officer Conference** - MTOA
 - 2018 **Wales Conference** - ICF
 - 2019 **Becoming Chartered Workshop** - ICF
 - 2019 **Ash Dieback Toolkit Launch** - Tree Council
 - 2019 **CAVAT Training** – ICF - Chris Neilan
 - 2019 **Tree Risk** – Jeremey Barrell
- 4. Relevant experience:**
- Since 2003 I have been pursuing my natural interest in trees, broadening my knowledge and the required skill range. These acquired skills and knowledge have been applied to projects for private customers, larger agencies and local authorities. I have inspected thousands of trees using accepted VTA methodology and have experience with the most up to date invasive decay detection devices. In the planning arena, I have experience of providing evidence for appeals and at planning hearings. I have recently authored Supplementary Planning Guidance and drafted tree policies for a local authority.
- 5. Professional affiliations:**
- Arboricultural Association (AA)- Professional Member

Tree Schedule

Explanatory notes:

- **Tree no:** Refers to the tree number shown on any included drawings.
- **Species:** The species identification based on visual observations and the common English name of what the tree appeared to be is listed first, with the botanical name after in brackets. In some instances, it may be difficult to quickly and accurately identify a particular tree without further detailed investigations. Where there is some doubt of the precise species of tree, it is indicated with a '?' after the name in order to avoid delay in the production of the report. The botanical name is followed by the abbreviation sp if only the genus is known. The species listed for groups and hedges represent the main component and there may be other minor species not listed.
- **Tree Height:** Height is an estimate to the nearest metre. Figures in brackets indicate lowest branch height.
- **Stem Diameter:** These figures relate to 1.5m above ground level and are recorded in millimetres. If appropriate, diameter is measured with a diameter tape.
- **Crown Spread:** The crown spread visually estimated to the nearest metre from the centre of the trunk to the tips of the live lateral branches, N= north, S= south, E= east and W=west.
- **Height & direction of 1st branch:** Height in meters of first significant branch and direction expressed as a cardinal point.
- **Min. Crown clearance:** Clear height in metres of ground clearance at the four cardinal points measured in metres
- **Life stage:** Age is an estimated range based on visual indicators and should only be taken as a provisional guide. Y=**Young**: obviously planted/self seeded within the last three years (unless as a heavy or extra-heavy standard). SM=**Semi-mature**: recently planted and yet to attain mature stature; up to 25% of attainable age. EM=**Early mature**: almost full height, crown still developing and seed bearing; up to 50% of attainable age. M=**Mature**: full height, crown spread, seed bearing; over 50% of attainable age. OM=**Over mature**: full size, die-back, small leaf size, poor growth extension.
- **Physiological condition:** Physiological health G=good; F= fair; P= poor; D= dead or moribund
- **General observations/management recommendations:** Information based on visual observations that may influence management proposals or BS 5837 categorisation, where appropriate recommendations are offered.
- **Remaining contribution:** Estimated remaining contribution in years
- **Retention category:** The category awarded in accordance with BS 5837:2012 Trees in relation to construction- Recommendations, it is an indication of a trees condition and value.
- **RPA-R:** Radius of circle (measured from centre of trunk) required to achieve RPA-A, in metres
- **Text colour:** BS 5837 Category, Green=A, Blue=B, Grey=C, Red=U

Tree no	Species	Tree Height (m)	Stem Dia. (mm)	Crown spread (m)				Min. Crown Clearance (m)	Life Stage	General observations Management recommendation	Remaining Contribution	Retention Category	RPA R (m)	RPA A (m ²)
				N	S	E	W							
T1	Common Oak	14	600	6	8	7	4	4	M	Located on bank, RPA offset to north.	40+	B2	7.2	163
T2	Ash	16	300 330 350	6	5	5	5	4	M	Located on bank, RPA offset to north. Previously pollarded. Category 1 ash die back, likely to decline.	<10	C1	6.8	145
T3	Common Oak	15	1100	11	12	11	8	4	M	Located on bank, RPA offset to north. Significant landscape tree.	40+	A1	13.2	547
T4	Sycamore	12	320 310 300	2	5	5	4	4	EM	Located on bank, RPA offset to north. One stem removed.	20+	C2	6.4	130
T5	Small-leaved Lime	8	325	2	4	4	4	2	EM		20+	C2	3.9	48
T6	Small-leaved Lime	8	300	4	3	4	3	2	EM		20+	C2	3.6	41
T7	Small-leaved Lime	10	300 325 200	3	5	4	3	2	EM		20+	C2	5.8	106
T8	Small-leaved Lime	9	450	4	3	4	3	2	EM		20+	C2	5.4	92
T9	Norway Maple	8	300	4	3	3	3	2	EM	Drainage ditch on southern side of tree.	40+	B2	3.6	41
T10	Norway Maple	10	350	5	4	6	3	2	EM	Drainage ditch on southern side of tree.	40+	B2	4.2	55
T11	Field Maple	10	350	5	4	2	5	2	EM	Drainage ditch on southern side of tree.	40+	B2	4.2	55
T12	Ash	10	220	2	2	2	2	2	EM	Drainage ditch on southern side of tree. Advanced ash die back. Fell to remove future risk.	<10	U	-	-

T13	Common Oak	10	250 250	4	4	4	4	0	SM	Drainage ditch on southern side of tree.	40+	B2	4.3	57
T14	Ash	10	350	3	3	3	3	0	SM	Advanced ash die back. Fell to remove future risk.	<10	U	-	-
G1	Field Maple	10	300	5	4	2	5	2	EM	Drainage ditch on southern side of tree.	40+	B2	3.6	41
G2	Ash	10	300	3	3	3	3	0	EM	Low vitality. Declining. Dieback in crown. Advanced ash die back. Fell to remove future risk.	<10	U	-	-
G3	Goat Willow	8	250 x 5	5	5	5	5	0.5	EM	Drainage ditch on southern side of tree.	20+	B2	6.7	141
G4	Wild Cherry	10	200	2	2	2	2	0	SM	Drainage ditch on southern side of tree.	20+	C2	2.4	18
G5	Common Oak	8	220	2	2	2	2	0.5	SM	Drainage ditch on southern side of tree.	40+	C2	2.6	22
G6	Horse Chestnut	8	400	4	4	4	4	1	EM	Drainage ditch on southern side of tree. Tight fork, bleeding canker, squirrel damage.	10+	C3	4.8	72

Category and definition	Criteria (including subcategories where appropriate)		
<p>Trees unsuitable for retention</p> <p>Category U Those in such a condition that they cannot realistically be retained as living trees in the context or the current land use for longer than 10 years</p>	<p>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality Note: Category U trees can have existing or potential conservation value which it may be desirable to preserve</p>		
<p>Trees to be considered for retention</p> <p>Category A Trees of high quality with an estimated life expectancy of at least 40 years</p>	<p>1. Mainly arboricultural qualities</p> <p>Trees that are particularly good examples of their species, especially if rare or unusual: or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)</p>	<p>2. Mainly landscape qualities</p> <p>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</p>	<p>3. Mainly cultural values, including conservation</p> <p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</p>
<p>Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</p>	<p>Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation</p>	<p>Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to a wider locality</p>	<p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood - pasture)</p>
<p>Category C Trees of low quality with an estimated remaining life expectancy or at least 10 years, or young trees with a stem diameter below 150mm</p>	<p>Unremarkable trees of a very limited merit or such an impaired condition that they so not qualify in higher categories</p>	<p>Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits</p>	<p>Trees with no material conservation or other cultural value</p>