

Arboricultural Impact Assessment & Method Statement

Land off Gwel Y Llan, Llandegfan

Prepared for:

DU CONSTRUCTION

Our Ref: 23/AIA/ANGLESEY/45

October 2023

Tree Solutions Ltd

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1.0 INSTRUCTION

- 1.1 We have been instructed by DU Construction (the applicant) to carry out an Arboricultural Impact Assessment (AIA) to assess the development proposal in relation to trees in accordance with the principles of British Standard 5837 'Trees in Relation to Design, Demolition & Construction - Recommendations' 2012.
- 1.2 We are instructed to prepare a report to provide information to assist all parties involved in the planning process to make balanced judgements regarding arboricultural features in relation to the proposed development on land off Gwel Y Llan, Llandegfan. As such, all trees within influencing distance to the development proposal both on and adjoining the site have been surveyed and are listed within a Tree Survey Schedule (**Appendix 1**) and plotted on all accompanying plans.
- 1.3 The stage 1 tree survey was carried out on 15 October 2023. Our appraisal of the mechanical integrity of trees on the site is enough to inform the current project. The assessment of trees is carried out from ground level without invasive investigation and the disclosure of hidden defects cannot therefore be expected. Whilst the survey is not specifically commissioned to report on matters of tree safety, we report obvious defects that are significant in relation to the existing and proposed land use. We do not carry out detailed safety inspections unless specifically instructed to do so in writing and have not carried out such inspections of trees on the proposal site.
- 1.4 Twenty-five individual trees (T1–T23), one group (G1) and three hedgerows (H1-H3) were surveyed and mapped on a Preliminary Tree Constraints & Impact Assessment Plan Ref: 23/AIA/Anglesey/45, Drawing No. 1 & 2 at **Appendix 2**. All arboricultural information recorded during the survey is presented within a schedule at **Appendix 1**.
- 1.5 The Arboricultural Impact Assessment is based on the proposed layout plan Ref: P1185, Drawing No: GYL-SAL-01-ZZ-DR-A-0003 (Rev P6) provided by Saer Architects.

2.0 STATUTORY CONTROLS & PLANNING POLICY

- 2.1 Anglesey Council do not display Tree Preservation Order or Conservation Area designations on an interactive map and unfortunately, we have been unable to obtain this information from the Council information to date. You are advised to seek confirmation on this prior to undertaking any tree works.

2.2 Protected Species

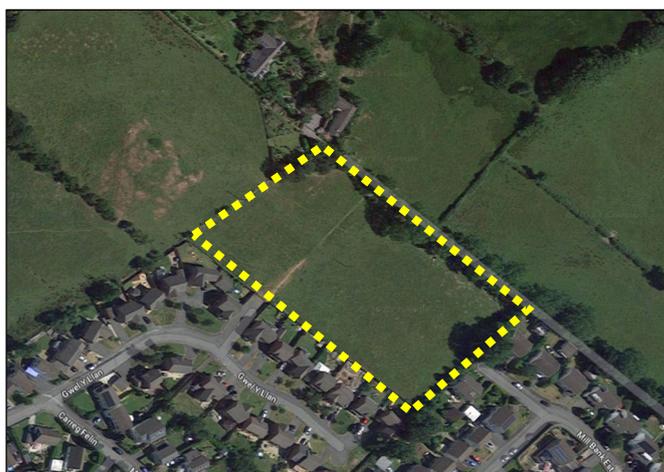
- 2.2.1 Mature trees often contain cavities, crevices and hollows that offer potential habitat for species such as bats and barn owls. Both are afforded protection under the Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), as well as The Conservation (Natural Habitats, &c) (Amendment) Regulations 2007.

2.3 Wildlife Habitats

- 2.3.1 Trees and hedgerows of most species provide valuable nesting sites for a wide range of birds, and it is likely that nesting birds will be present on the site during the period March to September.

3.0 THE SITE

- 3.1 The application site is agricultural land located to the north of Gwel Y Llan. Trees and hedgerows are located on the boundaries.



4.0 DEVELOPMENT PROPOSAL

4.1 Residential development with associated vehicular access and parking.

5.0 GENERAL CONSTRAINTS DATA - CONSTRUCTION EXCLUSION ZONES (CEZ's)

5.1 GENERAL

5.1.1 During the development process for retention trees, there may be three and even four constraints to consider: Construction Exclusion Zone (CEZ's):

- CEZ 1: Root Protection Area (see 5.2)
- CEZ 2: Tree Crown Protection (see 5.3)
- CEZ 3: Tree Dominance (see 5.4)
- CEZ 4: New Tree Planting Zone (see 5.5)

CEZ's are explained below:

5.2 CEZ 1: ROOT PROTECTION AREA (RPA)

5.2.1 The RPA, calculated in m², should be protected before and during any demolition/construction works. This ensures the effective retention of trees by safeguarding a reliable quantum of functioning tree roots. The RPA is based on a radial measure from the centre of the tree stem, which is calculated by multiplying the stem diameter by a factor of twelve or by the (mean stem diameter²) x number of stems for multi-stemmed trees.

5.2.2 During the AIA 2, the derived radial measure is converted by the Arboriculturalist into the actual area to be protected, having due regard to prevailing site conditions and how these may have affected the tree(s), particularly in relation to factors affecting their likely rooting disposition. The RPA for each tree should initially be plotted as a circle centred on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution.

5.2.3 The means of protecting the RPA will include the installation of tree protective fencing prior to the start of any demolition or construction work on site. The prohibition of various activities within the RPA must be adhered to (e.g. mechanical excavation, soil stripping, fire lighting, material storage, lowering levels and creating excessive sealed surfacing) and may include the use of temporary ground protection and/or special engineering solutions where construction is proposed near to retention trees or within the RPA.

5.3 CEZ 2: TREE CROWN PROTECTION ZONE

5.3.1 This is the area above ground occupied by the crown (branches) of the tree, along with allowances for working space (safe working area) and if appropriate, for future growth. The extent of CEZ 2 is determined by considering the existing and future crown spread of the tree(s), bearing in mind the possibility of this being modified by an acceptable quantum of pruning.

5.3.2 Canopies of retained trees are clear of all construction works and as such access facilitation pruning is not required.

5.4 CEZ 3: TREE DOMINANCE ZONE

5.4.1 Trees are located to the north of the dwellings and will not cause any issues with excessive shading as a result.

5.5 CEZ 4: NEW PLANTING ZONE

5.5.1 Refer to landscape proposals.

6.0 SURVEY METHODOLOGY

6.1 The method used in the preparation of this report is based on the principles of BS 5837: 2012.

1. Tree heights were surveyed to the nearest 1m
2. Trunk diameters were measured by use of forestry girth tape
3. The category assessment (Table 1) on which the trees is based include current and long-term arboricultural, landscape, cultural and conservation values (BS5837: 2012). This table can be found at **Appendix 1**
4. For clarity, the grading system is summarised from **Table 2** of the BS as follows:

U grade – trees for removal, effective for less than 10 years

A grade – trees of high quality and value, effective for more than 40 years

B grade – trees of moderate quality and value, effective for more than 20 years

C grade – trees of low quality and value, effective for 10 years

Note: We have indicated colour coding on the drawing and therefore a monochrome copy should not be relied on.

6.2 SOIL ASSESSMENT

6.2.1 A soil assessment should be undertaken by a competent person to inform decisions relating to:

- the root protection area (RPA)
- tree protection
- new planting design; and
- foundation design to take account of retained, removed and new trees (potential soil subsidence/heave)

Tree Solutions do not undertake soil assessments and the client is advised to seek specialist advice in this respect.

7.0 JUXTAPOSITION OF TREES AND STRUCTURES

7.1 Below ground constraints

7.1.1 The below ground constraints are generally summarised as the root protection area (RPA). The shape of the RPA and its exact location will depend upon arboricultural considerations including likely tolerance of the tree to root disturbance; morphology and disposition of the roots when known influenced by past or existing site conditions; soil type and structure; and topography and drainage.

7.1.2 The purpose of the RPA is to prevent physical damage to tree roots and to prevent damage to the soil structure. Tree roots are damaged by soil compaction, changes in soil levels or soil contamination which could reduce tree health and/or stability.

7.1.3 Root patterns are affected by topography and characteristics of the soil or substrate. Where trees are located within proximity to existing hard standing or underground physical barriers, they are unlikely to have an even distribution of lateral roots due to restrictions in root growth created by compacted sub-grades beneath. The RPA of all trees have all been plotted unmodified as there were no underground barriers to prevent good radial root spread.

7.2 Underground Services

7.2.1 We have considered the broad implications of the provision of underground services but the locations of existing and proposed were not identified on the plans supplied and, in this regard, our advice is of a general nature.

7.2.2 Drainage and service runs may need to be constructed within the rooting areas of retained trees. If this is a requirement of the development it will be necessary to retain significant roots and methods of excavation, such as thrust boring or hand digging, may need to be adopted to ensure that these impacts are acceptable.

- 7.2.3 As with foundation design, low impact construction methods for services installation are now well established. For more information regarding underground services, reference should be made to the National Joint Utilities Group (NJUG) Publication No. 10. Volume 4 'Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees' 2007

8.0 DEVELOPMENT IMPACT TO TREES

- 8.1 Tree Solutions carried out a stage one preliminary tree survey and provided the project architect with a report in which all existing trees and their respective Root Protection Areas (RPA) were identified and plotted on a tree constraints and impact assessment plan. We are satisfied that with the proposed special engineering solutions, the design has taken the long-term future of the trees into account and is in accordance with Anglesey Council Planning Policies and recommendations contained within BS5837: 2012.
- 8.2 In order to accommodate the development it will be necessary to remove tree number 7 as listed within the survey schedule at **Appendix 1**. This is an Ash that exhibits reduced vigour and extensive dead wood throughout its crown due to the spread of Chalara Ash Dieback. Whilst not at stage 3, the tree will inevitably succumb to complete death within the next 5 years. As such, it would be entirely inappropriate to retain it within the context of a residential housing area.
- 8.3 Whilst unnecessary to remove to facilitate development works, we have also recommended the removal of the remaining Ash trees along the northern boundary as they are in a state of advanced decline due to Chalara Ash Dieback.

9.0 PROPOSED REVISIONS TO THE SCHEME

- 9.1 We advise that all proposed revisions having implications for trees should be referred to us for review.

10.0 CONCLUSIONS

- 10.1 BS 5837: 2012 contains clear and current recommendations for a best practice approach to the assessment, retention and protection of trees on development sites. The proposed development has followed this guidance by:

- Seeking arboricultural advice and undertaking a phase 1 preliminary tree survey in order to inform the layout and design of the proposed development
- Respecting the constraints posed to development of the site by high or moderate quality trees
- Acting upon arboricultural advice throughout the design process to obtain the best development proposal whilst considering the current and future tree requirements
- Trees to be removed will all be replaced with new planting
- Taking the above into consideration, we can see no viable Arboricultural grounds for refusal.

11.0 LIMITING CONDITIONS

- Unless stated otherwise:
- Information contained in this report covers only those trees that were examined and reflects the condition of those trees at the time of the inspection.
- The inspection is limited to visual examination of the subject trees from ground level only and without dissection, excavation, probing or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future.
- This report has been prepared for the sole use and benefit of the client. Any liability of Tree Solutions shall not be extended to any third party.
- No part of this report can be reproduced without the authorisation of *Tree Solutions Ltd*.

Appendix One
Tree Survey Schedule

TREE SURVEY SCHEDULE (BS5837: 2012)

Tree Solutions

Arboricultural Consultants

Site	LAND OFF GWEL Y LLAN, LLANDEGFAN, ANGLESEY	Surveyor	M BARDSLEY	Page 1 of 2
Client	DU CONSTRUCTION	Assessment Dates	18-Oct-23	
Brief	ARBORICULTURAL IMPACT ASSESSMENT	Viewing Conditions	CLEAR	
		Job Reference	23/AIA/ANGLESEY/45	

Tree (Tag)/Group/Woodland Number	Name	Age	Height (m)	Crown clear	North	East	South	West	Stem Diameter (mm)	Vitality	Comments	E.R.C	Management	Category	RPA (m)	RPA (m ²)
1	Ash	EM	7	3	5	3	2	3	420	Moderate	ADB stage 1. Well used access between tree and client site likely to have impacted on root growth.	10>	Reinspect for ADB 2024	C1	5	80
2	Willow	EM	6	2	3	2	2	1	2 x 300, 200 (469)	Good	Scrubby goat willow on neighbouring property, measurements estimated. trifurcates at ground level with compression unions typical of the species.	<10	N/A	U	N/A	N/A
3	Eucalyptus	SM	5	2	1	1	1	1	2 x 100mm, 2x 150, 1 x 175 (309)	Good	Multi stemmed x 5 as of ground level with poor form. Growing on neighbouring property. 2 x stems estimated.	10>	N/A	C1	3.7	44
4	Eucalyptus	EM	5	2	3	4	4	2	425	Moderate	Unsympathetic pruning; topped at 3m leaving large wound open to decay and heavy, unbalanced limbs over client site prone to failure. Growing on neighbouring property.	<10	Reduce limbs overhanging site by 3m+	U	N/A	N/A
5	Birch	EM	4	3	1	3	1	1	230	Moderate	Topped tree leaving large wound open to decay and heavy, unbalanced limbs over client site prone to failure. Possibly topped for power line. Growing on neighbouring property	<10	Reduce limbs overhanging site by 3m+	U	N/A	N/A
6	Eucalyptus	EM	4	2	1	1	1	1	500	Moderate	Growing on neighbouring property with all measurements estimated. Unsympathetic pruning; topped for power line?	<10	N/A	U	N/A	N/A
7	Ash	M	19	2	12	10	9	8	1210	Moderate	Large tree with ADB stage 2, oddly localised die back particularly to south side, dead wood up to 3m x 200mm over site. Habitat potential throughout.	<10	Remove	C1	14.4	662
8	Ash	SM	8	2	4	1	1	2	180, 140 (228)	Poor	ADB stage 3. Codominant with poor form and in advanced stage of decline.		Remove	U	N/A	N/A
9	Sycamore	EM	14	3	5	3	4	4	550	Good	Reasonable form that could be improved with sympathetic pruning.	20>	Prune to shape	B2	6.6	136
10	Sycamore	SM	9	3	2	2	3	2	375	Good	Ivy obscures stem preventing further inspection. Suppressed by neighbouring trees.	10>	Sever ivy	C2	4.5	63
11	Ash	EM	13	3	5	2	4	2	370	Moderate	ADB stage 2. Cankered limb measuring 5m x 200mm south side at 3m.	10>	Remove cankered limb	C2	4.4	62
12	Ash	M	15	7	4	5	4	4	625, 475 (785)	Moderate	ADB stage 1. Co-dominant as of ground level with good tension union.	10>	No works required	C2	9.4	279

HEADINGS & ABBREVIATIONS

TREE NO.	REFERENCE NUMBER. REFER TO PLAN OR NUMBERED TAGS WHERE APPLICABLE (T = TREE, G = GROUP, H = HEDGE)
SPECIES:	COMMON NAME (LATIN NAMES AVAILABLE ON REQUEST)
AGE RANGE/LIFE STAGE:	Y = YOUNG, SM = SEMI MATURE, EM = EARLY MATURE, M = MATURE, PM = POST MATURE
HEIGHT:	ESTIMATED AND RECORDED IN METRES. APPROXIMATELY 1 IN 10 TREES ARE MEASURED USING A CLINOMETER AND THE REMAINDER ESTIMATED AGAINST THE MEASURED TREES
CROWN SPREAD:	MAXIMUM CROWN RADIUS MEASURED TO THE FOUR CARDINAL COMPASS POINTS FOR SINGLE SPECIMENS ONLY (MEASUREMENT FOR TREE GROUPS - MAXIMUM RADIUS OF THE GROUP)
CROWN CLEARANCE & DIRECTION OF GROWTH:	HEIGHT IN METERS OF CROWN CLEARANCE ABOVE ADJACENT GROUND LEVEL (TO INFORM ON GROUND CLEARANCE, CROWN/STEM RATIO AND SHADING)
STEM DIA/MULTI-STEM DIA:	STEM DIAMETER - MEASURED AT APPROXIMATELY 1.5 METRES ABOVE GROUND LEVEL OR A COMBINATION OF STEMS FOR MULTI-STEMMED TREES
VITALITY:	A MEASURE OF PHYSIOLOGICAL CONDITION. D = DEAD, MD = MORIBUND, P = POOR, M = MODERATE, G = GOOD
E.R.C. = ESTIMATED REMAINING CONTRIBUTION:	RELATIVE USEFUL LIFE EXPECTANCY (YEARS)
BS 5837 CATEGORY & SUB-CATEGORY GRADING	A = HIGH QUALITY AND VALUE, B = MODERATE QUALITY AND VALUE, C = LOW QUALITY AND VALUE, U = UNSUITABLE FOR RETENTION (SUB-CATEGORY REFERS TO ARBORICULTURAL, LANDSCAPE AND CULTURAL/CONSERVATION VALUES)
BS 5837 RADIUS & BS 5837 RPA:	PROTECTIVE DISTANCE - RADIUS FROM THE CENTRE OF THE STEM TO THE LINE OF TREE PROTECTION (CONSTRUCTION EXCLUSION ZONE - CEZ) AND PROTECTIVE BARRIER ROOT PROTECTION AREA - BS 5837 (2012) ANNEX D (THE RECOMMENDATIONS STATE THAT THE RPA SHOULD BE CAPPEE AT 707 M ²) NOTE - ALL CALCULATIONS ROUNDED TO NEAREST DECIMAL

TREE SURVEY SCHEDULE (BS5837: 2012)

Tree Solutions

Arboricultural Consultants

Site										Surveyor		Page 1 of 2				
LAND OFF GWEL Y LLAN, LLANDEGFAN, ANGLESEY										M BARDSLEY						
Client										Assessment Dates						
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										23/AIA/ANGLESEY/45						
Tree (Tag)/Group/Woodland Number	Name	Age	Height (m)	Crown clear	North	East	South	West	Stem Diameter (mm)	Vitality	Comments	E.R.C	Management	Category	RPA (m)	RPA (m ²)
13	Ash	SM	7	4	1	1	1	1	210	Poor	Dead tree.	<10	Remove	U	N/A	N/A
14	Ash	EM	15	4	4	3	4	2	475	Poor	ADB stage 3.	<10	Remove	U	N/A	N/A
15	Ash	SM	15	3	3	1	3	1	220, 175, 130 (310)	Poor	ADB stage 3. Trifurcated as of ground level, Inonotus brackets to west stem (west side at 1-2m above ground level).	<10	Remove	U	N/A	N/A
16	Sycamore	EM	15	3	3	2	3	1	420	Moderate	Suppressed by neighbouring ash making crown asymmetrical.	10>	No works required	C2	5	80
17	Ash	SM	14	5	1	1	3	1	190	Poor	ADB stage 3. Suppressed by neighbouring tree.	<10	Remove	U	N/A	N/A
18	Ash	SM	15	6	1	1	2	1	170	Poor	ADB stage 2, suppressed by neighbouring trees with etiolated form.	<10	Remove	U	N/A	N/A
19	Ash	SM	11	4	1	1	3	1	200	Poor	ADB stage 3, suppressed by neighbouring trees with etiolated form.	<10	Remove	U	N/A	N/A
20	Ash	SM	15	7	1	1	1	1	320	Poor	ADB stage 3, suppressed, inclusion from ground level.	<10	Remove	U	N/A	N/A
21	Ash	SM	15	7	1	1	1	1	190	Poor	ADB stage 4, almost dead suppressed tree with etiolated form.	<10	Remove	U	N/A	N/A
22	Sycamore	SM	14	5	3	2	3	2	360	Moderate	Co-dominant as of 2m, suppressed form due to neighbouring trees.	10>	No works required	C2	4.3	59
23	Ash	SM	14	8	4	1	1	1	280, 310 (418)	Poor	ADB stage 3. 150mm dia. cavity south side at 1m above ground level extending 125mm into stem.	<10	Remove	C2	5	79
24	Ash	M	20	3	8	6	5	3	380, 320, 300, 360, 320 (754)	Moderate	Large dia. Re-growth from coppiced stool growing in hedge line. ADB stage 1. Neighbouring tree with west stems estimated.	20>	Reinspect for ADB 2024	B2	9	257
25	Ash	M	15	8	4	5	3	4	670	Fair	Dia. estimated due to access. ADB stage 2.	10>	Reinspect for ADB 2024	C2	8	203
G1	Mixed	SM	<3	GL	N/A	N/A	N/A	N/A	<75	Good	Shrubs and small diameter trees growing within garden space of neighbouring property. Significant trees have been plotted separately as trees 2 - 6	10>	N/A	C2	1	1
H1	Mixed	SM	<5	GL	1	1	1	1	<125	Moderate	Mature "hedge" comprising ash, all at stage 3 ADB, cherry and sycamore up to 125mm DBH with the occasional hawthorn original hedge remnant. Larger trees removed historically, possibly due to power lines/transformer box?	10>	Remove stage 2 or greater ash and bring back into hedgerow management before trees become a nuisance to neighbouring property. Remove 2 small section for access	N/A	N/A	N/A
H2	Hawthorn	M	<2	GL	0.5	0.5	0.5	0.5	<75	Good	Well maintained hawthorn hedge.	20>	No works required	N/A	N/A	N/A
H3	Hawthorn	M	2	GL	1	1	1	1	<125	Moderate	Hedgerow remnant of 2 x hawthorn trees appears larger length due to brambles and other growth. Both trees struggling due to compaction/poaching	10>	No works required	N/A	N/A	N/A

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<ul style="list-style-type: none"> 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 <p><i>NOTE</i> Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</p>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	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)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	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	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 the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	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	Trees with no material conservation or other cultural value	See Table 2

Appendix Two
Preliminary Tree Constraints Plan



Legend

Root Protection Area Modified to Account for Site Features

Category A (High Quality) Category C (Low Quality)

Category B (Moderate Quality) Category U (Dead/Dying/In Decline)

NOTE: Treegroup numbers with * have approximate locations.

Client: DU Construction

Project: Land off Gwal Y Llan, Llanidlofan, Anglesey

Title: Preliminary Tree Constraints Plan

Scale: 1:200 at A0 Date: October 2023

Drawn By: SD Revisions: -

Job Ref: 23/AIA/Anglesey/45 Drawing No: 01

Do not scale from this drawing all dimensions to be checked on site.

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Appendix Three
Impact Assessment Plan



PUBLIC OPEN SPACE
PUBLIC OPEN SPACE REQUIREMENT = 1346M2
PUBLIC OPEN SPACE PROVISION = 1402M2

Legend

Root Protection Area Modified to Account for Site Features

Category A (High Quality) ● Crown Spread Tree Number

Category B (Moderate Quality) ● ● Category C (Low Quality) ● Category L (Dead/Dying/In Decline) ●

Tree Proposed for Removal ○

NOTE: Treegroup numbers with * have approximate locations.

Client: DU Construction

Project: Land off Gwel Y Llan, Llanidogan, Anglesey

Title: Arboricultural Impact Assessment

Scale: 1:200 at A0 Date: October 2023

Drawn By: SD Revision: -

Job Ref: 23/AIA/Anglesey/45 Drawing No: 02

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Appendix Four
Tree Protection Plan



Tree Protective Fencing Specification

PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.

TREE PROTECTION AREA
KEEP CLEAR
Trees are a valuable asset and their preservation is a priority for this development. All trees within the Tree Protection Area (TPA) must be protected and maintained in accordance with the approved plans and drawings for this development. Any damage to trees within the TPA must be reported to the site manager immediately.



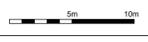
Legend

- Tree Protection Area (shaded green)
- Category A (High Quality) - Green circle
- Category B (Moderate Quality) - Blue circle
- Category C (Low Quality) - Grey circle
- Category L (Dead/Dying In Decline) - Red circle
- Crown Spread - Green outline
- Tree Number - Number in the center
- 2.0M High Heras (with extra central support) - Purple line
- Secured with anti-tamper bolts - Dashed line

NOTE: Treegroup numbers with * have approximate locations.

Client:	DU Construction
Project:	Land off Gwel Y Llan, Llandegfan, Anglesey
Title:	Tree Protection Plan
Scale:	1:200 at A0
Date:	October 2023
Drawn By:	SD
Revised:	-
Job Ref:	23/AIA/Anglesey/45
Drawing No:	03

Do not scale from this drawing all dimensions to be checked on site.
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Appendix Five
Tree Protective Measures/Method Statement

SEQUENCE OF OPERATIONS

From commencement of the above development, the following methodology shall be implemented in the manner and sequence described:

1. Tree surgery works
2. Pre-contract site meeting – Toolbox Talk
3. Erect temporary protective fencing
4. Main construction phase
5. Removal of temporary fencing
6. Landscaping within RPA
7. Arboricultural site supervision (ACoW)

1. Tree Surgery Works

1. Before the erection of the temporary protective fencing, all tree removal shall be implemented in accordance with the Tree Survey Schedule at **Appendix 1**
2. All possible efforts must be made to prevent damage to retained trees including potential root incursion or compaction caused by vehicle access.
3. All arboricultural works shall conform to the recommendations of BS 3998 (2010) 'Recommendations for Tree Work'
4. All operatives shall be equipped with and use personal protective equipment (PPE) in accordance with current Health & Safety Executive current directives and industry codes of practice.
5. Performance of all arboricultural operations and use of equipment shall be in accordance with current Health & Safety Executive current directives and industry codes of practice
6. Any additional access facilitation pruning required shall be undertaken by qualified tree contractors and conform to the recommendations of BS 3998 (2010) 'Recommendations for Tree Work'

2. Pre-Contract Site Meeting – 'Toolbox Talk'

To outline working methods in relation to trees prior to any construction activity on site, a site meeting of the following shall take place:

1. Client
2. Main Contractor
3. Arboricultural Clerk of Works (ACoW)
4. Site Agent

3. Erect Temporary Tree Protective Fencing

1. Prior to commencement of any construction, preparation, excavation, or material deliveries the main contractor shall erect the temporary protective fencing as detailed in the 'Tree Protection Specification' and in the location indicated on the Tree Protection Plan.

4. Main Construction Phase

1. There shall be no storage of construction material, site parking, site accommodation or equipment in any area designated as the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) and enclosed by Temporary Protective Fencing
2. No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained. No fires will be lit
3. The site agent shall supervise deliveries by self-loading crane, with vehicles positioned in such a manner that retained trees are not at risk of damage

Cement Mixing

- The cement mixer will be laid on top of plywood boards in a position outside the RPA of any trees. The mixer will be kept in this position throughout all development work.

Avoiding Damage to Stems and Branches

- Care shall be taken when planning site operations in proximity to trees to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without encountering retained trees. Such contact can result in serious injury resulting in safe retention impossible

On Site Storage of Spoil and Building Materials

- Prior to and during all site construction works no spoil will be stored and no cement mixing will take place within the Root Protection Area of any tree on or adjacent to the site even if proposed site work is to be within the crown spread. Any encroachment within this protected area will only be with the prior agreement of LCC Arboricultural Officer

5. Remove all Temporary Tree Protective Fencing

1. Tree Protective fencing will only be removed upon completion of all construction work and once all machinery associated with the works has left site.

6. Landscaping within RPA of Trees

1. There shall be **no rotovating** of ground within any area designated as a Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) and enclosed by Temporary Protective Fencing.
2. No hard-landscaping works or excavation for cables or any other service should be installed within the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) without the written consent of the LPA

7. Arboricultural Site Supervision – (ACoW)

- 1 The ACoW shall give toolbox talk training with the main contractor/sub-contractor on all tree protective measures and working practice within designated RPA's
- 2 The ACoW shall make visits to site to inspect all tree protection measures during all key development work within proximity to retained trees and when requested by the contractor.

Arboricultural Clerk of Works (ACoW)

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TREE PROTECTIVE FENCING

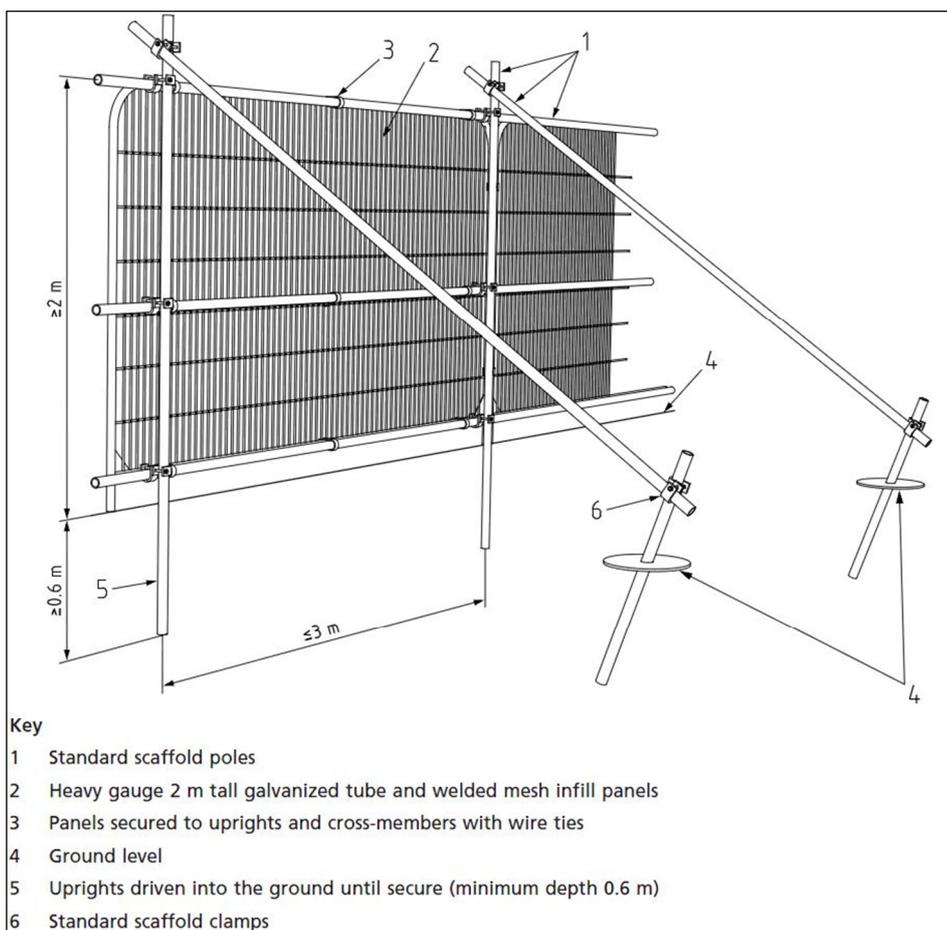
- 1 Before the commencement of any demolition and subsequent construction works on site (other than those set out in the schedule of tree works contained in this document), protective fencing will be erected as detailed on the Tree Protection Plan and as specified below.
- 2 The fencing will consist of a scaffold framework in accordance with Figure 2 of BS 5837 – 2012 (illustration below) comprising a metal framework, both vertical and horizontal, well braced to resist impacts. Vertical tubes will be spaced at a maximum interval of 3m. Onto this, weldmesh panels shall be securely fixed with wire or scaffold clamps. Weldmesh panels on rubber or concrete feet are not considered resistant to impact and for this reason will not be used. The site manager or other suitably qualified appointed person will be responsible for inspecting the protective fencing daily; any damage to the fencing or breaches of the fenced area will be rectified immediately.
- 3 Clearly legible weatherproof signage, stating “Protected Trees – Exclusion Zone” shall be attached to the fencing 1.5m from the ground, facing out of the Tree Protection Zone located at regular intervals along the fence line
- 4 The fencing will remain in place until completion of all site works and then only removed when all site traffic is removed from site
- 5 Other than works detailed within this method statement or approved in writing by the Local Planning Authority (LPA), no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing.

Protective Fencing Detail

The fence types are shown on the Tree Protection Plan with the following colour key: -

1. **Magenta**

2.0M high heavy-duty Heras panels (with extra central support bar) mounted on scaffold poles (driven into the ground) and secured with anti-tamper bolts – as illustrated below.



Tree Protective Fencing Specification



PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.



**TREE PROTECTION AREA
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION**

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY