

Mynydd Llanhilleth Wind Farm

**FINAL DRAFT** 

Appendix 8C -Arboricultural Baseline Note

Prepared by:

The Environmental Dimension Partnership Ltd

On behalf of: **Pennant Walters** 

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### **PLANS**

Plan EDP 1: Tree Constraints Plan (edp6367\_d138b 31 July 2024 GYo/DGa)

# Section 1 Introduction

- 1.1 The Environmental Dimension Partnership Ltd (EDP) has been commissioned by Pennant Walters ('the Applicant') to undertake a BS 5837:2012 *Trees in Relation to Design, Demolition and Construction* compliant survey of trees in relation to the proposed development of Mynydd Llanhilleth Wind Farm comprising the Application Site.
- 1.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Cardiff, and Cheltenham. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website (www.edp-uk.co.uk).
- 1.3 The Application Site is located to the north-east of Llanhilleth within the Local Planning Authority (LPA) of Torfaen County Borough Council, comprising agricultural land predominantly used for livestock grazing. The development proposals concern the installation of wind turbines across the Application Site, together with ancillary infrastructure at the Site. All trees located within 130m of the proposed wind turbine locations across the Application Site were therefore subject to arboricultural survey. Of the seven turbine locations assessed, trees occur within 130m of three turbine locations, T1, T2 and T6.
- 1.4 The purpose of this Baseline Note is to:
  - Identify principal trees suitable for retention;
  - Identify the benefits and constraints associated with retained trees to inform the proposed development; and
  - Inform an Arboricultural Impact Assessment where necessary to facilitate development.

# Section 2 Methodology and Limitations

- 2.1 The methodology adopted for this survey is based on guidelines set out in BS 5837:2012

  Trees in Relation to Design, Demolition and Construction, especially Section 4.4,

  'Tree Survey'. Site trees and other significant vegetation are as noted on the

  Tree Constraints Plan (Plan EDP 1) and this data has been derived from the

  Topographical Survey. All surveyed items are detailed in Annex EDP 1. No other trees are

  covered by this survey.
- 2.2 All trees have been visually inspected from ground-level unless otherwise stated, with no climbing or further detailed investigative tests being undertaken. The comments on their condition are based on observable factors present at the time of inspection. All measurements are metric and have been recorded in accordance with the measurement conventions set out in Section 4.4.2.6 of BS 5837:2012.
- 2.3 Any recommendations given regarding longer-term management are made on the basis of optimising the life expectancy of site trees, given their current situation and any effects that may result from the development proposals.
- 2.4 The Schedule in **Annex EDP 1** provides information about the following factors in accordance with Section 4.4.2.5 of BS 5837:2012:
  - Sequential reference number (recorded on **Schedule EDP 1**);
  - Species;
  - Height;
  - · Stem diameter;
  - Branch spread;
  - Canopy clearance above ground level;
  - Life stage;
  - Physiological condition;
  - Structural condition:
  - Comments/notes;
  - Recommendations (and tree work priority);
  - Estimated remaining contribution;
  - Category grading; and

- Root protection radius.
- 2.5 Due to the changing nature of trees and other site circumstances, this report and any recommendations made are limited to a 24-month period from the survey date. Any alterations to the proposals could change the current circumstances and may invalidate this report and any recommendations made.
- 2.6 Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer damage under average conditions. Regular inspections can help to identify potential problems before they become acute.
- 2.7 A lack of recommended work does not imply that a tree is safe, and likewise, it should not be implied that a tree will be made safe following the completion of any recommended work.
- 2.8 The subject trees have not been tagged for identification purposes.

# Section 3 Summary of Tree Stock

- 3.1 The survey has identified 53 individual trees, 13 groups of trees, two hedgerows, and one woodland, totalling 69 items. Of these 68 items, 19 have been categorised as A, of high quality; 41 have been categorised as B, of moderate quality; and six have been categorised as C and are of low quality. In addition, three items have been categorised as U and are considered unsuitable for retention.
- 3.2 All surveyed items are as noted on **Plan EDP 1** and detailed in the Schedule at **Annex EDP 1**.
- 3.3 An illustrative summary of the species diversity, age distribution, and grading categorisation for the Study Area is provided in **Annex EDP 2**.
- 3.4 Overall, the items identified across the surveyed area are primarily of high and moderate value, with the exception of six category C items.

# Section 4 National and Local Planning Policy

### **PLANNING POLICY WALES (EDITION 12)**

### 4.1 Paragraph 6.4.37 of Planning Policy Wales (PPW) states:

"Trees, hedgerows, groups of trees and areas of woodland are of great importance for biodiversity. They are important connecting habitats for resilient ecological networks and make an essential wider contribution to landscape character, culture, heritage and sense of place, air quality, recreation and local climate moderation. They also play a vital role in tackling the climate emergency by locking up carbon, and can provide shade, shelter and foraging opportunities, wider landscape benefits such as air and diffuse pollution interception, natural flood management, and building materials. The importance of trees, in particular urban trees, in creating distinctive and natural places which deliver health and well-being benefits to communities, now and in the future should be promoted as part of plan making and decision taking. Planning authorities must promote the planting of new trees, hedgerows, groups of trees and areas of woodland as part of new development".

### 4.2 Paragraph 6.4.38 of PPW states:

"Welsh native tree and hedge species, characteristic of the local area, provide a strong ecosystem resilience function, and they provide resources for local wildlife, particularly other native plants and species. Native tree and hedge species can also complement opportunities for natural regeneration. Alongside broader woodland habitat types, such as wood pasture, parkland and traditional orchards, native tree and hedge species help to define our cultural heritage and landscape, creating a strong sense of place and connection to the past."

### 4.3 Paragraph 6.4.39 of PPW states:

"Planning authorities must protect trees, hedgerows, groups of trees and areas of woodland where they have ecological value, contribute to the character or amenity of a particular locality, or perform a beneficial green infrastructure function. Planning authorities should consider the importance of native woodland and valued trees, and should have regard to local authority tree strategies or SPG and the Green Infrastructure Assessment. Planning authorities should adopt appropriate, locally relevant, time sensitive, minimum tree canopy cover targets for their authority area and where appropriate the expansion of canopy cover. The Green Infrastructure Assessment and tools such as NRW's Tree Cover in Wales' Towns and Cities study and Forest Research's i-Tree Eco tool will help establish a baseline of canopy cover and guide the identification of appropriate and measurable canopy targets. Tools to help with design and species choice in urban areas are also available."

#### 4.4 Paragraph 6.4.40 of PPW states:

"Where trees, woodland and hedgerows are present, their retention, protection and integration should be identified within planning applications. Where surveys identify tees, hedgerows, groups of trees and areas of woodland capable of making a significant

contribution to the area, these trees should be retained and protected. The provision of services and utilities infrastructure to the application site should also avoid the loss of trees, woodlands or hedges and must be considered as part of the development proposal; where such trees are lost, they will be subject to the replacement planting ratios set out below."

### 4.5 Paragraph 6.4.41 of PPW states:

"Whilst most focus within the planning system is targeted at urban trees, planning authorities should recognise the importance of trees within the countryside, either as woodlands, within hedgerows and hedgebanks, or free-standing trees in fields, or as wood pasture. This is particularly important as the effects of climate change are leading towards pests and diseases that are damaging many of our native species in the rural landscape. Positive mechanisms of rural tree retention should be considered, and measures taken to replace them in an effective and economic manner, either with new planting or by allowing them to grow to their full potential."

### 4.6 Paragraph 6.4.42 of PPW states:

"Permanent removal of trees, woodland and hedgerows will only be permitted where it would achieve significant and clearly defined public benefits. Where individual or groups of trees and hedgerows are removed as part of a proposed scheme, planning authorities must first follow the step-wise approach as set out in paragraph 6.4.15. Where loss is unavoidable developers will be required to provide compensatory planting (which is proportionate to the proposed loss as identified through an assessment of green infrastructure value including biodiversity, landscape value and carbon capture). Replacement planting shall be at a ratio equivalent to the quality, environmental and ecological importance of the tree(s) lost and this must be preferably onsite, or immediately adjacent to the site, and at a minimum ratio of at least 3 trees of a similar type and compensatory size planted for every 1 lost. Where a woodland or a shelterbelt area is lost as part of a proposed scheme, the compensation planting must be at a scale, design and species mix reflective of that area lost. In such circumstances, the planting rate must be at a minimum of 1600 trees per hectare for broadleaves, and 2500 trees per hectare for conifers. The planting position for each replacement tree shall be fit to support its establishment and health, and ensure its unconstrained long-term growth to optimise the environmental and ecological benefits it affords".

#### **LOCAL POLICY**

#### **Torfaen County Borough Council Local Development Plan (Adopted December 2013)**

#### 4.7 Policy S7: Conservation of the Natural and Historic Environment states:

"Development proposals should seek to ensure the conservation and enhancement of the Natural, Built & Historic Environment of Torfaen."

### 4.8 Paragraph 5.7.4 states:

"Biodiversity networks serve an important function in supporting the long-term sustainability of our core biodiversity resources... Trees and hedgerows also form part of

the biodiversity network. Proposals affecting such resources will be assessed against Policy BW1".

4.9 Policy BW1 General Policy - Development Proposals states:

"All development proposals will be considered favourably providing they comply with the following criteria where they are applicable:

- B Natural Environment
- v) The proposal does not result in the unacceptable loss or harm to features of landscape importance including trees and woodland that have natural heritage or amenity value".

# Section 5 Statutory Protection

### TREE PRESERVATION ORDERS AND CONSERVATION AREAS

- 5.1 The surveyed area is not within a designated conservation area.
- 5.2 Consultation with the LPA is recommended to determine the presence of any Tree Preservation Orders occurring in association with the proposed turbine locations.

# Section 6 Protected Wildlife and Trees

### **BATS**

6.1 All species of British bat comprise European Protected Species (EPS) and are afforded protection under the *Conservation of Habitats and Species Regulations* 2017 (as amended). Further information is provided in **Annex EDP 3**.

#### **NESTING BIRDS**

6.2 All wild birds, their nests and eggs are protected under Section 1 of the *Wildlife and Countryside Act* 1981 (as amended). Harm to wild birds can mostly be avoided by timing works to avoid the main bird breeding season, considered to run between March and August inclusive. Further information on their protection is provided in **Annex EDP 3**.

# Section 7 Site-specific Constraints

7.1 As shown in **Annex EDP 1**, surveyed items are primarily of high and moderate arboricultural value.

#### **ANCIENT WOODLAND**

- 7.2 Two areas of ancient woodland were identified within the surveyed area, highlighted on **Plan EDP 1**. **G104** is part of a larger area of Plantation on Ancient Woodland Sites (PAWS) and **W122** contains an area of Ancient Semi-natural Woodland (ASNW).
- 7.3 Ancient woodland is defined as an area which has been wooded continuously since at least 1600 AD¹ and includes ASNW and PAWS. 'Wooded continuously' doesn't mean there has been a continuous tree cover across the whole site. Not all trees in the woodland must be old. Open space, both temporary and permanent, is also an important component of ancient woodland.²
- 7.4 Natural Resources Wales (NRW) advice to planning authorities considering proposals affecting ancient woodland states:

"We advise that planning permission should be refused if development will result in the loss or deterioration of ancient woodland, given that ancient woodland is irreplaceable unless there are wholly exceptional reasons.

Where a decision maker is satisfied there is a wholly exceptional reason, every endeavour should be made to minimise and compensate for loss. Although a compensation strategy cannot fully compensate for loss of ancient woodland, it should include:

- Planting of new native woodland or wood pasture to improve the resilience of ancient woodland;
- Restoration or management of other ancient woodland, including plantations on ancient woodland sites, and wood pasture;
- Proposals connecting woodland and ancient and veteran trees separated by development with green infrastructure;
- Long-term management plans for new woodland and ancient woodland;
- Planting individual trees that could become veteran and ancient trees in future;
- Monitoring the ecology of the site over an agreed period".

<sup>&</sup>lt;sup>1</sup> Spencer & Kirby (1992)

<sup>&</sup>lt;sup>2</sup> https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences#history

7.5 NRW Also advise on the Use of stand-off or protection zones:

"The BS 5837:2012 Tree Survey... should be used to inform the stand-off or protection zone for each individual woodland and veteran and ancient tree. Some zones may only require a root protection area to prevent negative impacts on individual trees or groups of trees, and others are likely to extend further. For example, the effect of air pollution from development that results in a significant increase in traffic or point source.

Where possible, a stand-off or protection zone should:

- Contribute to wider ecological networks;
- Be part of the green infrastructure of the area;"

#### **VETERAN TREES**

#### **Planning Policy Wales**

7.6 Paragraph 6.4.43 states:

"Ancient woodland, semi-natural woodlands, individual ancient, veteran and heritage trees and ancient hedgerows are irreplaceable natural resources, and have significant landscape, biodiversity and cultural value. Such trees, woodlands and hedgerows are to be afforded protection from development which would result in their loss or deterioration unless very exceptionally there are significant and clearly defined public benefits; this protection must prevent potentially damaging operations and their unnecessary loss".

- 7.7 Four veteran trees were identified during the survey process (**T16**, **T128**, **T133** and **T138**). These are highlighted on **Plan EDP 1** with a yellow star and a stand-off zone (15 x stem diameter). The stand-off is illustrated on **Plan EDP 1** as an orange circle.
- 7.8 Further information on above- and below-ground arboricultural constraints is provided in **Annex EDP 4**.

# Section 8 Conclusion

- 8.1 Four veteran trees (**T16**, **T128**, **T133** and **T138**) have been identified in association with the proposed turbine locations. A veteran tree, by a recognised criterion, shows features of biological, cultural, or aesthetic value, that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species.<sup>3</sup>
- 8.2 **G102** and **W122** have been identified as PAWS and ASNW respectively. Ancient Woodland is defined as an area which has been wooded continuously since at least 1600 AD<sup>4</sup> and includes ASNW and PAWS. 'Wooded continuously' does not mean there has been a continuous tree cover across the whole site. Not all trees in the woodland must be old. Open space, both temporary and permanent, is also an important component of ancient woodland.
- 8.3 It is recommended that any development should be kept as far as possible from the veteran trees and ancient woodland, with a buffer area maintained between the items and any development boundary. Veteran trees and ancient woodland should be prioritised for retention.
- 8.4 Of the items surveyed, 19 have been categorised as A, of high quality and 41 have been categorised as B, of moderate quality. These items should be prioritised for retention. Nevertheless, the default position should be the retention of all items, as so far as is practicable, regardless of category grading, as all trees provide positive environmental and ecological contributions, irrespective of current condition.
- 8.5 The arboricultural constraints information provided within this Baseline Note has been taken into consideration within the detailed design and layout of the scheme. Further information on the consideration of trees within the design process is provided at **Annex EDP 4**.

<sup>&</sup>lt;sup>3</sup> https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions

<sup>&</sup>lt;sup>4</sup> Spencer & Kirby (1992)

# Annex EDP 1 Tree Survey Key and Schedule EDP 1

Sequential Reference Number	T - Individual specimen;
Number	G - Group of trees that form cohesive arboricultural features either aerodynamically, visually or culturally;
	H - Linear group of specimens that form a hedge or boundary; and
	W - A larger group or area of trees that should be regarded as a single woodland unit.
Species	Scientific names and common English names provide, the latter are used wherever possible for simplicity.
Height	An approximation of height (in metres) is provided for the highest point of the tree.
Stem Diameter	This is the measurement of stem diameter in millimetres taken in accordance with Annex C of BS 5837:2012 (# is used if estimated).
Branch Spread	This is taken at four cardinal points, with a stated value in metres to enable an accurate representation of the crown, as shown on <b>Schedule EDP 1</b> .
Canopy Clearance	An approximation of height (in metres) of crown clearance above adjacent
Above Ground Level Life Stage	ground level.  There are five classes to which trees are assigned:
	Young; Early Mature;
	Mature; Over Mature; and
	Veteran.
Physiological	An indication of the tree's physiological condition is represented and classed
Condition	as good, fair, poor, or dead, this is informed by the following:
	Canopy density: It should be taken that, unless otherwise stated with each individual entry, the canopy density of the trees is typical of the species; and
	Leaf size and colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.
Structural Condition	An indication of the tree's structural condition is represented and classed as good, fair, poor or dead.
	This is informed by "the presence of any decay and physical defect <sup>5</sup> ".
Comments/Notes	Observations on structural or physiological condition, historic pruning, any site-specific constraints etc. noted at the time the survey is undertaken.

<sup>&</sup>lt;sup>5</sup> BS 5837:2012 Section 4.4.2.5

Recommendations	These are made on the basis of entimining the life evacutancy of site trace
	These are made on the basis of optimising the life expectancy of site trees,
(and Tree Work	given their current situation and that which may result from the development
Priority)	proposals. The survey process pays particular attention to implications for life
	and/or property; defects recorded under the structural condition have the
	necessary mitigation measures proposed within this section of the schedule.
	Priority codes from 1 to 3 have been given for trees requiring work. The
	definition of the codes used is as follows:
	Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard;
	Priority 2: Work that should be undertaken prior to any demolition or
	construction works commencing on Site; and
	Priority 3: Work that should be undertaken following the completion of the
	development.
Estimated Remaining	The definitions of the terms used are as follows and describe the estimated
Contribution	length of time (in years) over which the tree can be expected to make a safe
	contribution to local amenity:
	Less than 10;
	10+;
	20+; and
	40+.
Category Grading	Trees have been assigned either U or category grading A to C in accordance
	with the cascade chart given in BS 5837:2012.
Root Protection	Measurement (in m) based on the stem diameter and calculated in
Radius	accordance with BS 5837:2012.

Pennant Walters Client: Site:

Mynydd Llanhilleth Wind Farm

09/03/23, 15/03/23, 27/03/23, Date of Survey: 03/04/23

Tagged Weather Sunny & Clear/Overcast

David Garrick Consultant

					Branch S	Spread (m)								Estimated			Tookin
Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	North	East	South	West	Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority) & Work history	Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)	Turbine Location Number
T11	Beech (Fagus sylvatica)	14	# 1200	9	11	8	6	2	Mature	Good	Fair	Exposed roots  Decay - Open cavity / cavities  Pruning wounds - Historic (Multi stemmed. Cavity on central main stem owl and bat potential 3 high.  Deep cavity on main stem 1m high. Several small knot holes higher up.  Would need climbing.)	No Work Recommended	40+	A1,2	14.4	5
T12	Beech (Fagus sylvatica)	15	6x650	8	10	10	10	1	Over Mature	Fair	Fair	Decay - Open cavity / cavities Decay entry points Multi-stemmed (Cavity on main stem goes relatively deep could support a significant roost south elevation 1.5m. Several other rot holes.)	No Work Recommended	20+	B1,2	15	5
T13	Beech (Fagus sylvatica)	14	620 570	8	7	7	6	1	Early Mature	Fair	Fair	Decay - Open cavity / cavities (Large cavity western elevation 1.8m high. Tear out northern elevation.)	No Work Recommended	20+	B1	10.11	5
T14	Beech (Fagus sylvatica)	16	970	9	9	9	7	2	Mature	Good	Good	Hazard beam crack (Horizontal cavity facing towards slope north side. Vertical rot on south elevation. Need climbing. Basal cavity 2 inches.)	No Work Recommended	40+	A1,2	11.64	5
T15	Oak sp. (Quercus sp.)	8	360 380	4	4	3	3	1	Early Mature	Fair	Poor	Decay - Open cavity / cavities (On steep bank. Basal cavity extending up 60cm. Can be endoscoped from ground, needs checking again.)	No Work Recommended	10+	C1	6.28	5
T16	Beech (Fagus sylvatica)	14	960	10	9	8	7	1	Over Mature (Veteran)	Fair	Poor	Decay - Open cavity / cavities  Hollow trunk - Open cavity  Fungal fruiting body - Parasitic  Competition - Adjacent trees  (Basal cavity extending up 30cm. Cavity on main trunk southern elevation.  Can be endoscoped.)	No Work Recommended	40+	A1,3,2	11.52	1
Т34	Beech (Fagus sylvatica)	12	820	7	5	9	6	1	Mature	Fair	Poor	Decay - Open cavity / cavities Rubbing limbs Competition - Adjacent trees (Cavity on main stem very exposed. Could be used in emergency. Knot holes higher up could go deeper. Need climbing to confirm.)	No Work Recommended	20+	B1,2	9.84	1
T35	Beech (Fagus sylvatica)	12	680	7	6	6	8	1	Mature	Fair	Fair	Exposed roots (Cavity on southern rotten branch exposed 1m up. Basal cavity relatively shallow and exposed.)	No Work Recommended	20+	B1	8.16	1
T36	Beech (Fagus sylvatica)	13	760	7	9	7	6	1	Mature	Fair	Fair	Competition - Adjacent trees (Cavity on eastern branch. Cavity on central v shallow.)	No Work Recommended	20+	B1,2	9.12	1
T37	Beech (Fagus sylvatica)	13	860	8	8	7	5	2	Mature	Good	Fair	Epicormic growth - Bole / principal stems Leaning trunk (Cavity on eastern branch exposed to rain. Basal cavities v shallow.)	No Work Recommended	20+	B1,2	10.32	5
Т38	Oak sp. (Quercus sp.)	13	740	8	8	7	7	1	Mature	Good	Fair	Good reaction wood / Adaptive growth Lesion or fracture on limb / limbs - Minor (Tear out 2.5m up northern elevation.)	No Work Recommended	40+	A1,2	8.88	5
T39	Beech (Fagus sylvatica)	14	850	8	8	8	8	1	Mature	Good	Fair	Condition considered typical of species and age (Small exposed tear out could be used in emergency.)	No Work Recommended	20+	B1,2	10.2	5
T41	Beech (Fagus sylvatica)	16	820	7	7	9	7	1	Mature	Fair	Fair	Deadwood - Minor Competition - Adjacent trees (Possibly cavity on southern elevation at branch fork. Need climbing to confirm if feature is suitable.)	No Work Recommended	20+	B1,2	9.84	5
T42	Beech (Fagus sylvatica)	12	630	6	7	8	6	1	Early Mature	Fair	Fair	Decay entry points  Condition considered typical of species and age (cavity where branches overlap on northern elevation can be endoscoped.)	No Work Recommended	20+	B1	7.56	5
T43	Beech (Fagus sylvatica)	14	730	7	7	7	7	1	Mature	Good	Fair	Condition considered typical of species and age (Southern elevation branch horizontal wound cavity. Needs climbing to check.)	No Work Recommended	20+	B1,2	8.76	5

Sequential Reference Number -T - Individual specimen; G - Group, Trees that form cohesive arboricultural features either aerodynamically, visually or culturally, H - Linear group of specimens that form a hedge or boundary; W - A larger group or area of trees that should be regarded as a single woodland unit.

Species -Common English names are used wherever possible for simplicity.

Height -An approximation of height (in metres) is provided for the highest point of the tree. **Stem Diameter** -This is the measurement of stem diameter in millimetres taken in accordance with Annex C of BS5837:2012.

Branch Spread -This is taken at four cardinal points, with a stated value in metres to enable an

accurate representation of the crown, as shown on Plan EDP 1. Canopy Clearance -An approximation of height (in metres) of crown clearance above adjacent

ground level.

Life Stage -There are five classes to which trees are assigned: Young, Early Mature; Mature; Over Mature; Ancient; Dead.

Physiological Condition -An indication of the tree's physiological condition is represented and classed as good, fair, poor or dead, this is informed by the following: Canopy Density: It should be taken that, unless otherwise stated with each individual entry, the canopy density of the trees is typical of the species; and Leaf Size and Colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.

**Structural Condition** -Additional notes are provided giving details of the tree's structural condition. This is informed by "the presence of any decay and physical defect".

Management Recommendations -These are made on the basis of optimising the life expectancy

of site trees, given their current situation and that which may result from the development proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule.

 $\textbf{Tree Works Priority Codes} \ - \text{Priority codes from } 1 \text{ to } 3 \text{ have been given for trees requiring work.} \ The$ definition of the codes used is as follows: Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard; Priority 2: Work that should be undertaken prior to any works commencing on site; and Priority 3: Work that should be undertaken following the completion of the development.

Estimated Remaining Contribution -The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity: Less than 10; 10+; 20+; and 40+.

Category Grading -Trees have been assigned 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in BS5837:2012.

Root Protection Radius—The root protection radius from the stem of the tree calculated in line

with the recommendations set out in BS5837:2012.

Notes:

Comments in parenthesis are from the Bat

assessment of the trees

					Branch S	Spread (m)						I		Estimated			
Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	North	East	South	West	Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority) & Work history	Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)	Turbine Location Number
G44	Beech sp. (Fagus sp.)	14	750	7	7	7	7	1	Mature	Fair	Fair	Condition considered typical of species and age Competition - Adjacent trees (Distinct group with neg to mod potential. tree is moderate on sw corner of tree group needs climbing to inspect cavity on eastern branch. Other trees with low potential can be checked from ground level.)	No Work Recommended	20+	B2,1	9	5
T45	Beech (Fagus sylvatica)	18	1220	9	10	9	5	1	Mature	Good	Fair	Decay - Open cavity / cavities Fungal fruiting body - Saprophytic Water pocket Competition - Adjacent trees (1 knot hole southern elevation possibly doesn't lead anywhere.)	No Work Recommended	20+	B1,2	14.64	5
T46	Beech (Fagus sylvatica)	10	820	8	8	8	8	2	Over Mature	Fair	Poor	Exposed roots Decay - Major Foreign object - Ingrown metal Hollow trunk - Open cavity Bark wound - Minor Die-back - Mid crown (Large cavity main truck extending up 80cm. Knot hole in northern and eastern branch. Knot holes need climbing.)	No Work Recommended	10+	C1	9.84	5
T47	Beech (Fagus sylvatica)	12	12x940	9	7	9	9	2	Mature	Good	Fair	Buttresses / buttress roots - Minor adaptive growth / moderate development, Exposed roots Decay - Open cavity / cavities Hollow trunk - Suspected Arboricultural work - Historic Decay / structural defect in crown limb / limbs - Localised ( Shallow basal cavities. Rot hole on cut branch eastern elevation.)	No Work Recommended	40+	A1,2	15	5
T56	Beech (Fagus sylvatica)	12	1140	9	7	7	7	1	Mature	Fair	Fair	Decay - Open cavity / cavities Broken branch Deadwood - Minor (Tear out eastern elevation. Exposed basal cavity.)	No Work Recommended	20+	B1,2	13.68	5
T57	Beech (Fagus sylvatica)	13	850	8	7	6	8	N/A	Mature	Good	Fair	Decay - Open cavity / cavities Hollow trunk - Open cavity (Basal cavity extending up to 30cm horizontal.)	No Work Recommended	20+	B1,2	10.2	5
T74	Beech (Fagus sylvatica)	16	# 400 250 350 350	6	6	6	7	2	Mature	Fair	Fair	Weak fork / branch union with included bark Hazard beam crack Arboricultural work - Historic Multi-stemmed (Vertical cavity on branch 5m high east facing can be viewed from ground.)	No Work Recommended	20+	B1	8.2	5
T75	Beech (Fagus sylvatica)	25	800	6	7	8	8	3	Mature	Good	Fair	Lesion or fracture on stem / bole - Minor  Competition - Adjacent trees (Small tear out.)	No Work Recommended	20+	B1,2	9.6	6
T76	Beech (Fagus sylvatica)	27	# 850	8	7	6	8	3	Mature	Good	Good	Decay - Open cavity / cavities Competition - Adjacent trees (Small cavity Western elevation.)	No Work Recommended	40+	A1,2	10.2	2
T77	Beech (Fagus sylvatica)	22	850	8	8	7	8	1	Mature	Fair	Good	Broken branch Deadwood - Minor (Horizontal east facing branch has cavity on the end that needs climbing.)	No Work Recommended	40+	A1,2	10.2	2
T84	Beech (Fagus sylvatica)	13	870	8	8	9	8	1	Mature	Good	Good	Exposed roots Epicormic growth - Bole / principal stems (Cavity on main stem NE 1.6m high. Several knot holes 2m high southern side.)	No Work Recommended	40+	A1,2	10.44	5
T85	Oak sp. (Quercus sp.)	12	680	6	6	7	7	1	Mature	Fair	Fair	Hazard beam crack  Competition - Adjacent trees  (Small mature tree. Hazard beam northern elevation and basal cavity.)	No Work Recommended	20+	B1	8.16	5
T86	Beech (Fagus sylvatica)	17	850	9	9	9	7	N/A	Mature	Good	Fair	Exposed roots  Decay - Open cavity / cavities  Decay entry points  Deadwood - Minor  Competition - Adjacent trees  (Large tear out and rot hole on main stem 7m high.)	No Work Recommended	20+	B1,2	10.2	5

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Species -Common English names are used wherever possible for simplicity. **Height** -An approximation of height (in metres) is provided for the highest point of the tree. **Stem Diameter** -This is the measurement of stem diameter in millimetres taken in accordance with Annex C of BS5837:2012.

Branch Spread -This is taken at four cardinal points, with a stated value in metres to enable an

accurate representation of the crown, as shown on Plan EDP 1. Canopy Clearance -An approximation of height (in metres) of crown clearance above adjacent

ground level.

Life Stage -There are five classes to which trees are assigned: Young, Early Mature; Mature; Over Mature; Ancient; Dead.

Physiological Condition -An indication of the tree's physiological condition is represented and classed as good, fair, poor or dead, this is informed by the following: Canopy Density: It should be taken that, unless otherwise stated with each individual entry, the canopy density of the trees is typical of the species; and Leaf Size and Colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.

**Structural Condition** -Additional notes are provided giving details of the tree's structural condition. This is informed by "the presence of any decay and physical defect".

Management Recommendations -These are made on the basis of optimising the life expectancy of site trees, given their current situation and that which may result from the development proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule.

 $\textbf{Tree Works Priority Codes} \cdot \textbf{Priority codes} \text{ from } 1 \text{ to } 3 \text{ have been given for trees requiring work. The}$ definition of the codes used is as follows: Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard; Priority 2: Work that should be undertaken prior to any works commencing on site; and Priority 3: Work that should be undertaken following the completion of the development.

Estimated Remaining Contribution -The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity. Less than 10; 10+; 20+; and 40+.

Category Grading -Trees have been assigned 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in BS5837:2012.

					Branch S	Spread (m)								Estimated			1
Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	North	East	South	West	Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority) & Work history	Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)	Turbine Location Number
Т87	Beech (Fagus sylvatica)	15	1020	9	8	9	8	3	Over Mature	Fair	Poor	Buttresses / buttress roots - Major adaptive growth / strong development Crack - Longitudinal / shear crack Decay - Open cavity / cavities Hollow trunk - Open cavity (Woodpecker hole northern elevation. Basal cavity expending up approximately 3m. Hollow trunk. Shallow cavity on eastern elevation. Stem is cracked on both east and west.)	No Work Recommended	<10	U	12.24	5
Т88	Beech (Fagus sylvatica)	12	940	8	8	8	8	1	Mature	Good	Fair	Fused stems Hazard beam crack Deadwood - Minor (Cavity on southern trunk. Can be endoscoped.)	No Work Recommended	20+	B1,2	11.28	5
G89	Beech (Fagus sylvatica) Oak sp. (Quercus sp.)	16	750	7	7	7	7	1	Mature	Fair	Fair	Bark wound - Minor Broken branch Condition considered typical of species and age Competition - Adjacent trees (Mature tree with two large broken branches on ne corner needs climbing to check cavity on northern 10m up. Oak tree on se corner of group has cavity on northern elevation which can be endoscoped from ground - needs checking.)	No Work Recommended	20+	B1,2	9	1
Т90	Beech (Fagus sylvatica)	18	1400	11	9	10	10	1	Mature	Good	Good	Epicormic growth - Bole / principal stems Deadwood - Minor Condition considered typical of species and age (Shallow basal cavity northern elevation. Vertical cavity 2m up on main trunk western elevation. Can be endoscoped from ground.)	No Work Recommended	40+	A1,2	15	1
T118	Willow sp. (Salix sp.)	13	# 750	6	8	7	6	N/A	Mature	Fair	Fair	Hazard beam crack (Horizontal split west facing branch. Cavity on broken branch west facing. Knot hole northern elevation 5m high. Large split on Eastern elevation hazard beam.)	No Work Recommended	20+	B1	9	1
T119	Beech (Fagus sylvatica)	24	# 900	9	9	9	9	2	Mature	Fair	Fair	Decay - Major Decay - Open cavity / cavities Hollow trunk - Suspected (Large cavity on southern elevation south facing. Looks smooth. Put torchlight on it but not sure if it leads anywhere. Other small knot holes. Two tear outs on East elevation 4m High also need climbing to check)	No Work Recommended	20+	B1,2	10.8	1
T125	Beech (Fagus sylvatica)	12	1080	8	10	10	10	1	Mature	Fair	Good	Deadwood - Minor Arboricultural work - Historic	No Work Recommended	40+	A1,2	12.96	1
T126	Beech (Fagus sylvatica)	12	970 580 630	8	7	8	7	1	Over Mature	Fair	Fair	Fungal fruiting body - Parasitic Decay - Open cavity / cavities Deadwood - Minor Rubbing limbs Shedding limb / limbs - Historic	No Work Recommended	20+	B1,2	15	1
T127	Beech sp. (Fagus sp.)	12	700 440	7	9	8	6	1	Mature	Fair	Fair	Fungal fruiting body - Parasitic,Buttresses / buttress roots - Major adaptive growth / strong development Decay - Open cavity / cavities Stems - Sub-dominant Rubbing limbs Deadwood - Major Competition - Adjacent trees	No Work Recommended	20+	B1,2	9.92	1
T128	Beech (Fagus sylvatica)	16	1300	9	9	9	9	2	Over Mature (Veteran)	Fair	Fair	Root environment - Compacted Decay - Open cavity / cavities Foreign object - Ingrown metal Pruning wounds - Historic	No Work Recommended	40+	A1,3	15	1
T129	Beech (Fagus sylvatica)	16	1500	10	10	6	8	1	Over Mature	Fair	Fair	Decay - Open cavity / cavities Arboricultural work - Historic Leaning trunk	No Work Recommended	20+	B1,2	15	1
T130	Beech (Fagus sylvatica)	15	980	4	9	8	8	1	Mature	Fair	Poor	Hollow trunk - Open cavity Decay - Open cavity / cavities Arboricultural work - Historic	No Work Recommended	20+	B1	11.76	1
T131	Beech (Fagus sylvatica)	15	960	8	8	7	9	N/A	Over Mature	Fair	Poor	Decay - Open cavity / cavities Hollow trunk - Open cavity Arboricultural work - Historic	No Work Recommended	20+	B1,2	11.52	1

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Species -Common English names are used wherever possible for simplicity. **Height** -An approximation of height (in metres) is provided for the highest point of the tree. **Stem Diameter** -This is the measurement of stem diameter in millimetres taken in accordance with Annex C of BS5837:2012.

Branch Spread -This is taken at four cardinal points, with a stated value in metres to enable an accurate representation of the crown, as shown on Plan EDP 1. Canopy Clearance -An approximation of height (in metres) of crown clearance above adjacent

ground level.

Life Stage -There are five classes to which trees are assigned: Young, Early Mature; Mature; Over Mature; Ancient; Dead.

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**Structural Condition** -Additional notes are provided giving details of the tree's structural condition. This is informed by "the presence of any decay and physical defect".

Management Recommendations -These are made on the basis of optimising the life expectancy of site trees, given their current situation and that which may result from the development proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule.

 $\textbf{Tree Works Priority Codes} \cdot \textbf{Priority codes} \text{ from } 1 \text{ to } 3 \text{ have been given for trees requiring work. The}$ definition of the codes used is as follows: Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard; Priority 2: Work that should be undertaken prior to any works commencing on site; and Priority 3: Work that should be undertaken following the completion of the development.

Estimated Remaining Contribution -The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity. Less than 10; 10+; 20+; and 40+.

Category Grading -Trees have been assigned 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in BS5837:2012

1					Branch S	Spread (m)								Estimated			
Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	North	East	South	West	Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority) & Work history	Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)	Turbine Location Number
T132	Beech (Fagus sylvatica)	15	1080	8	8	10	7	1	Mature	Fair	Fair	Decay - Open cavity / cavities Arboricultural work - Historic Decay / structural defect in crown limb / limbs - Open cavity / cavities	No Work Recommended	20+	B1,2	12.96	1
T133	Beech (Fagus sylvatica)	12	460 560 640	8	7	8	8	1	Over Mature (Veteran)	Fair	Fair	Multiple stems from base Decay - Open cavity / cavities Hollow trunk - Suspected Deadwood - Major	No Work Recommended	40+	A1,3	11.6	1
T134	Beech (Fagus sylvatica)	12	860	6	6	8	5	2	Mature	Fair	Fair	Buttresses / buttress roots - Major adaptive growth / strong development Hollow trunk - Suspected Decay - Open cavity / cavities Competition - Adjacent trees	No Work Recommended	20+	B1,2	10.32	1
T135	Beech (Fagus sylvatica)	12	580 710	7	7	5	7	2	Mature	Good	Fair	Fused stems Epicormic growth - Crown	No Work Recommended	20+	B1,2	11	5
T136	Beech (Fagus sylvatica)	12	570	7	5	6	5	1	Early Mature	Fair	Good	Competition - Adjacent trees	No Work Recommended	20+	B1	6.84	5
T137	Beech (Fagus sylvatica)	14	1060	9	8	8	8	1	Mature	Good	Fair	Deadwood - Minor  Buttresses / buttress roots - Major adaptive growth / strong development	No Work Recommended	40+	A1,2	12.72	5
T138	Beech (Fagus sylvatica)	16	1400	9	10	10	10	N/A	Over Mature (Veteran)	Fair	Fair	Decay - Open cavity / cavities  Decay / structural defect in crown limb / limbs - Open cavity / cavities  Lesion or fracture on limb / limbs - Major	No Work Recommended	40+	A1,3,2	15	1
G139	Beech (Fagus sylvatica) Sessile oak (Quercus petraea)	15	650	7	7	7	7	1	Mature	Fair	Fair	Arboricultural work - Historic Deadwood - Minor Situated on field boundary/drain edge	No Work Recommended	20+	B1,2	7.8	5
T140	Beech (Fagus sylvatica)	15	930	9	8	8	9	2	Mature	Good	Good	Arboricultural work - Historic	No Work Recommended	40+	A1,2	11.16	6
T141	Beech (Fagus sylvatica)	15	1000	8	5	8	10	3	Mature	Fair	Fair	Fungal fruiting body - Saprophytic Decay - Open cavity / cavities Hollow trunk - Suspected	No Work Recommended	20+	B1,2	12	5
T142	Beech (Fagus sylvatica)	16	1200	8	8	8	8	3	Mature	Fair	Fair	Fused stems Arboricultural work - Historic Deadwood - Major	No Work Recommended	40+	A1,2	14.4	6
T143	Beech (Fagus sylvatica)	14	910	7	2	3	7	4	Over Mature	Poor	Poor	Decay / structural defect - Extensive Die-back - Mid crown Competition - Adjacent trees	No Work Recommended	<10	U	10.92	5
G144	Beech (Fagus sylvatica)	16	1000	8	8	8	8	3	Over Mature	Fair	Fair	Decay - Suspected	No Work Recommended	20+	B1,2	12	6
G145	Beech (Fagus sylvatica)	12	1000	10	10	10	10	1	Mature	Good	Fair	Exposed roots Foreign object - Ingrown metal	No Work Recommended	40+	A2,1	12	5
G146	Beech (Fagus sylvatica)	12	850	8	8	8	8	2	Mature	Fair	Fair	Arboricultural work - Historic Competition - Adjacent trees	No Work Recommended	20+	B2,1	10.2	1
G147	Beech (Fagus sylvatica)	14	850	8	8	8	8	2	Mature	Fair	Fair	Decay - Open cavity / cavities Arboricultural work - Historic Competition - Adjacent trees	No Work Recommended	20+	B2,1	10.2	6

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Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	North	East	South	West	Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority) & Work history	Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)	Turbine Location Number
T148	Beech (Fagus sylvatica)	12	640	5	7	6	6	1	Mature	Fair	Fair	Competition - Adjacent trees	No Work Recommended	20+	B1	7.68	5
G149	Beech (Fagus sylvatica)	18	950	9	9	9	9	1	Mature	Good	Good	Deadwood - Minor Competition - Adjacent trees	No Work Recommended	40+	A1,2	11.4	6
T150	Beech (Fagus sylvatica)	18	1200	10	10	10	10	N/A	Mature	Fair	Good	Deadwood - Minor Multi-stemmed	No Work Recommended	40+	A1,2	14.4	1
G151	Beech (Fagus sylvatica)	16	800	8	8	8	8	1	Mature	Fair	Fair	Broken branch Deadwood - Minor Competition - Adjacent trees	No Work Recommended	20+	B1,2	9.6	1
G152	Beech (Fagus sylvatica)	16	800	8	8	8	8	1	Mature	Fair	Fair	Broken branch Deadwood - Minor Competition - Adjacent vegetation Leaning trunk	No Work Recommended	20+	B1,2	9.6	1
T153	Beech (Fagus sylvatica)	13	860	7	5	6	7	1	Dead	Dead	Dead	Dead tree / trees Fallen tree / trees - Partial collapse	No Work Recommended	<10	U	10.32	1
H172	Common hawthorn (Crataegus monogyna)	2	70	1	1	1	1	N/A	Early Mature	Fair	Fair	Maintained hedge	No Work Recommended	10+	C1, 3	0.84	5
G173	Common ash (Fraxinus excelsior) Elder sp. (Sambucus sp.) Prunus sp. (Prunus sp.)	4	70	1	1	1	1	1	Young	Fair	Fair	Natural regeneration	No Work Recommended	10+	C1	0.84	5
G174	Beech (Fagus sylvatica)	17	850	8	8	8	8	1	Mature	Good	Fair	Multiple stems from base Deadwood - Minor Hedgerow - Historic	No Work Recommended	20+	B1,2	10.2	2
G175	Common hawthorn (Crataegus monogyna)	4	120	2	2	2	2	1	Early Mature	Fair	Fair	Condition considered typical of species and age	No Work Recommended	10+	C2	1.44	2
W176	Beech (Fagus sylvatica) Common hawthorn (Crataegus monogyna) Birch sp. (Betula sp.) Willow sp. (Salix sp.)	24	800	7	7	7	7	1	Mature	Good	Fair	Condition considered typical of species and age Competition - Adjacent trees Beech and Willow woodland with birch and hawthorn understorey	No Work Recommended	20+	B1,2	9.6	2
H177	Common hawthorn (Crataegus monogyna)	2	50	1	1	1	1	N/A	Early Mature	Fair	Fair	Maintained hedge	No Work Recommended	10+	C1, 3	0.6	5

Sequential Reference Number -T - Individual specimen; G - Group, Trees that form cohesive arboricultural features either aerodynamically, visually or culturally. H - Linear group of specimens that form a hedge or boundary; W - A larger group or area of trees that should be regarded as a single woodland unit.

Mature; Ancient; Dead.

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ground level.

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Structural Condition -Additional notes are provided giving details of the tree's structural condition.

This is informed by "the presence of any decay and physical defect".

Management Recommendations -These are made on the basis of optimising the life expectancy

of site trees, given their current situation and that which may result from the development proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule.

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Estimated Remaining Contribution -The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity. Less than 10; 10+; 20+; and 40+.

Category Grading -Trees have been assigned 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in BS5837:2012.

# Annex EDP 2 Illustrative Summary of Survey Data

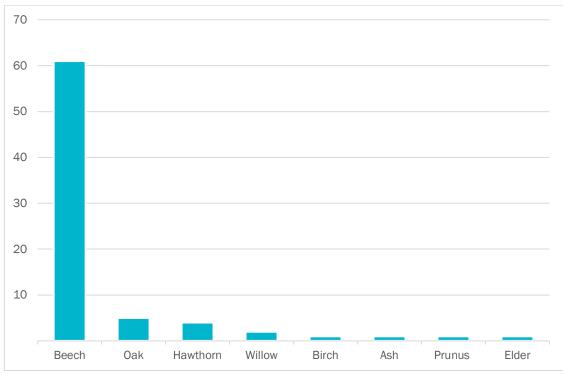


Image EDP A2.1: Species diversity.

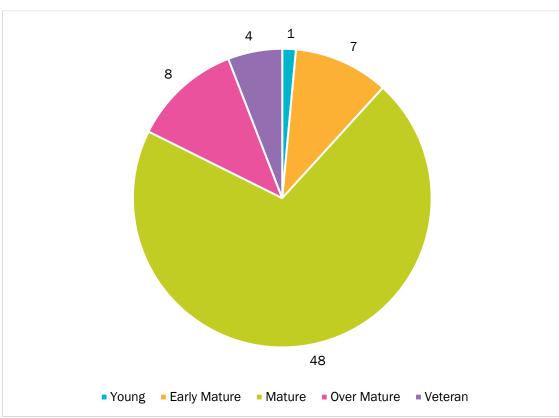


Image EDP A2.2: Age distribution.

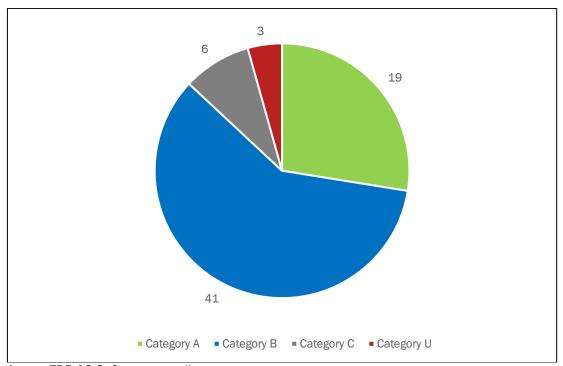


Image EDP A2.3: Category grading.

# Annex EDP 3 Protected Species

#### **BATS**

- A3.1 All species of British bat comprise European Protected Species (EPS) and are afforded protection under the *Conservation of Habitats and Species Regulations* 2017 (as amended), making it an offence to:
  - Deliberately capture, injure or kill a wild individual of an EPS;
  - Deliberately disturb wild animals of an EPS wherever they are occurring, in particular
    any disturbance which is likely to impair their ability to survive, to breed or reproduce,
    to affect significantly the local distribution or abundance of the species to which they
    belong, or in the case of hibernating or migratory species, to hibernate or migrate; or
  - Damage or destroy a breeding site or resting place of a wild individual of an EPS.
- A3.2 Additional protection for bats is also afforded under the *Wildlife and Countryside Act* 1981 (as amended), making it an offence to intentionally or recklessly disturb bats whilst they are occupying a structure or place that is used for shelter or protection, or to obstruct access to this structure or place. As bats tend to re-use the same roosts, legal opinion is that roosts are protected whether or not bats are currently occupying these resting places/places of shelter.
- A3.3 Prior to undertaking any tree works or tree removal, further advice should be sought from a suitably qualified ecologist.

#### **NESTING BIRDS**

- A3.4 All wild birds, their nests and eggs are protected under Section 1 of the *Wildlife and Countryside Act* 1981 (as amended). This makes it an offence to:
  - i. Intentionally kill, injure or take any wild bird;
  - ii. Take, damage or destroy the nest of any wild bird while it is in use or being built;
  - iii. Take, damage or destroy the egg of any wild bird; or
  - iv. To have in one's possession or control any wild bird (dead or alive), or egg or any part of a wild bird or egg.
- A3.5 In addition, further protection is afforded to those wild bird species listed on Schedule 1 of the Act, prohibiting any intentional or reckless disturbance to these species while they are nest building, or at a nest containing eggs or young, or to recklessly disturb the dependent young of such a bird.

# Annex EDP 4 Consideration of Trees within the Design Process

A4.1 Construction activities pose a threat to the successful retention of trees if handled inappropriately. It is important to consider the relationship between development and trees during the design process.

#### **BELOW-GROUND CONSTRAINTS - ROOT PROTECTION AREA**

- A4.2 The below-ground constraints are defined as the likely spread and distribution of the root system and are depicted on **Plan EDP 1** with pink outlined areas, representing the Root Protection Area (RPA) around each surveyed item.
- A4.3 The RPA is defined as the minimum area (in m²) around the tree that is deemed to contain sufficient roots and rooting volume to maintain the tree's viability.
- A4.4 Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, the shape of the RPA may be modified, but not reduced in area, and its shape should reflect a soundly based assessment of the likely root distribution.
- A4.5 Any deviation in the RPA from the original circular plot should take account of the following factors, whilst still providing adequate protection for the root system:
  - The morphology and disposition of the roots, when known to be influenced by past or existing site conditions (e.g. the presence of roads, structures and underground services);
  - Topography and drainage;
  - The soil type and structure; and
  - The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age and condition and presence of other trees.

#### **ABOVE-GROUND CONSTRAINTS - PROXIMITY OF TREES TO STRUCTURES**

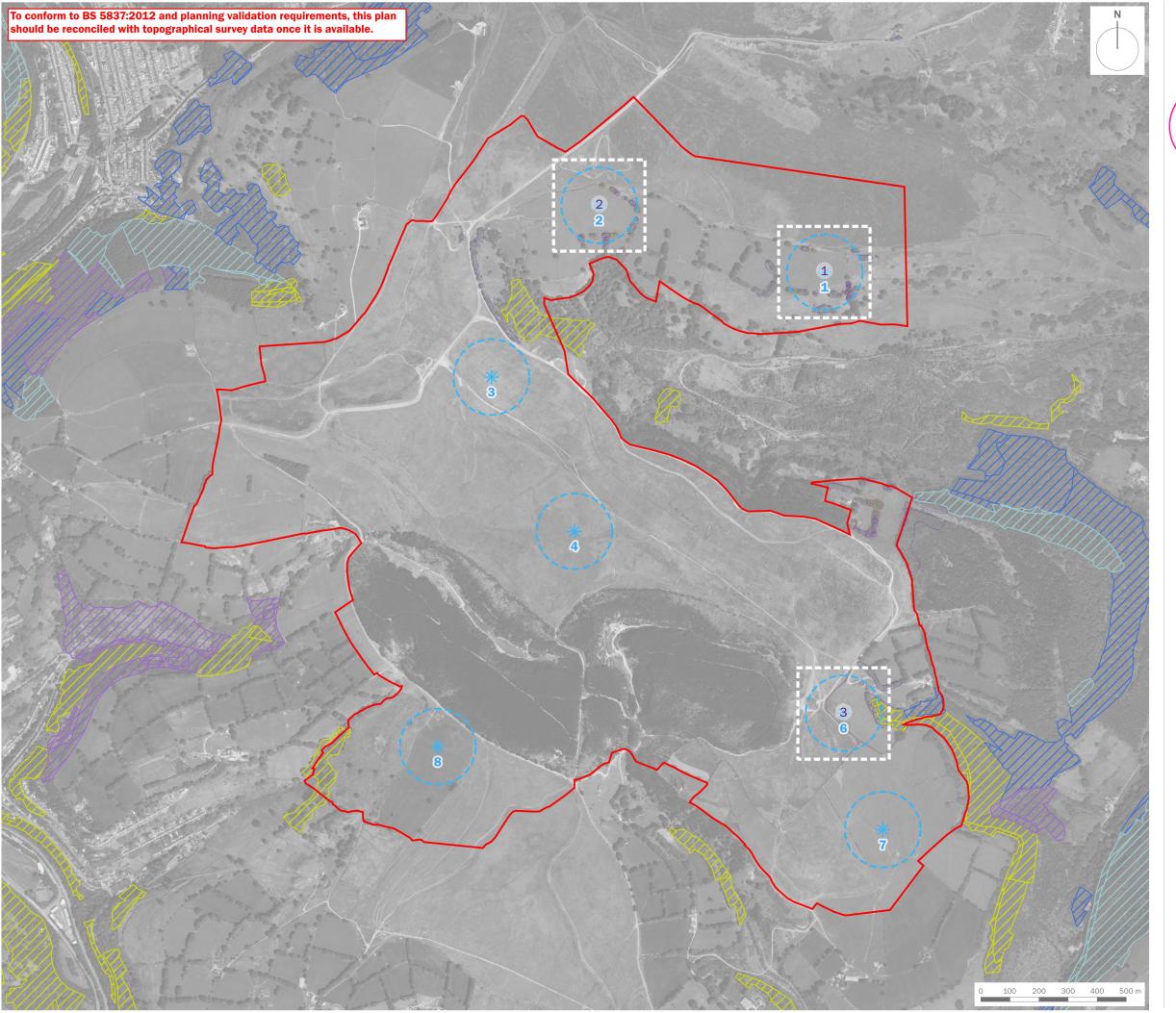
- A4.6 The above-ground parts of a tree, whilst being more visible and easily protected, are a potential constraint to development, and consideration should be given to the current and ultimate height and spread of the trees.
- A4.7 Where the current and/or ultimate height of a category A, B or C tree will cause an unreasonable obstruction to the proposed development, this must be considered as a constraint. This is usually considered in terms of issues relating to shade and light.

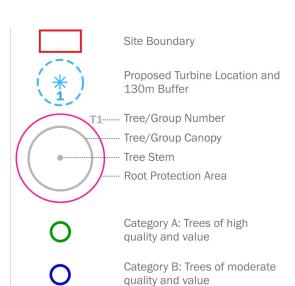
### A4.8 The above-ground constraints can be a combination of factors such as:

- Shading of buildings and open space a detailed daylight study may be necessary if any proposed buildings are in the immediate vicinity of retained trees;
- Direct damage to structures;
- Future pressure for removal;
- Seasonal nuisance (e.g. leaf fall blocking gutters, fruit fall creating slippery patches and honey dew dripping on vehicles and surfaces);
- Whether the tree is deciduous or evergreen; and
- Density of foliage.

# **Plans**

**Plan EDP 1:** Tree Constraints Plan (edp6367\_d138b 31 July 2024 GYo/DGa)





Category C: Trees of low quality and value

Category U: Trees of poor quality and value

Veteran Trees and Veteran Tree Buffer

Ancient Semi-natural Woodland

Plantation on Ancient Woodland Site

Restored Ancient Woodland Site

Ancient Woodland Site of Unknown Category

client

# **Pennant Walters**

project title

# **Mynydd Llanhilleth Wind Farm**

drawing title

# **Tree Constraints Plan (Overview)**

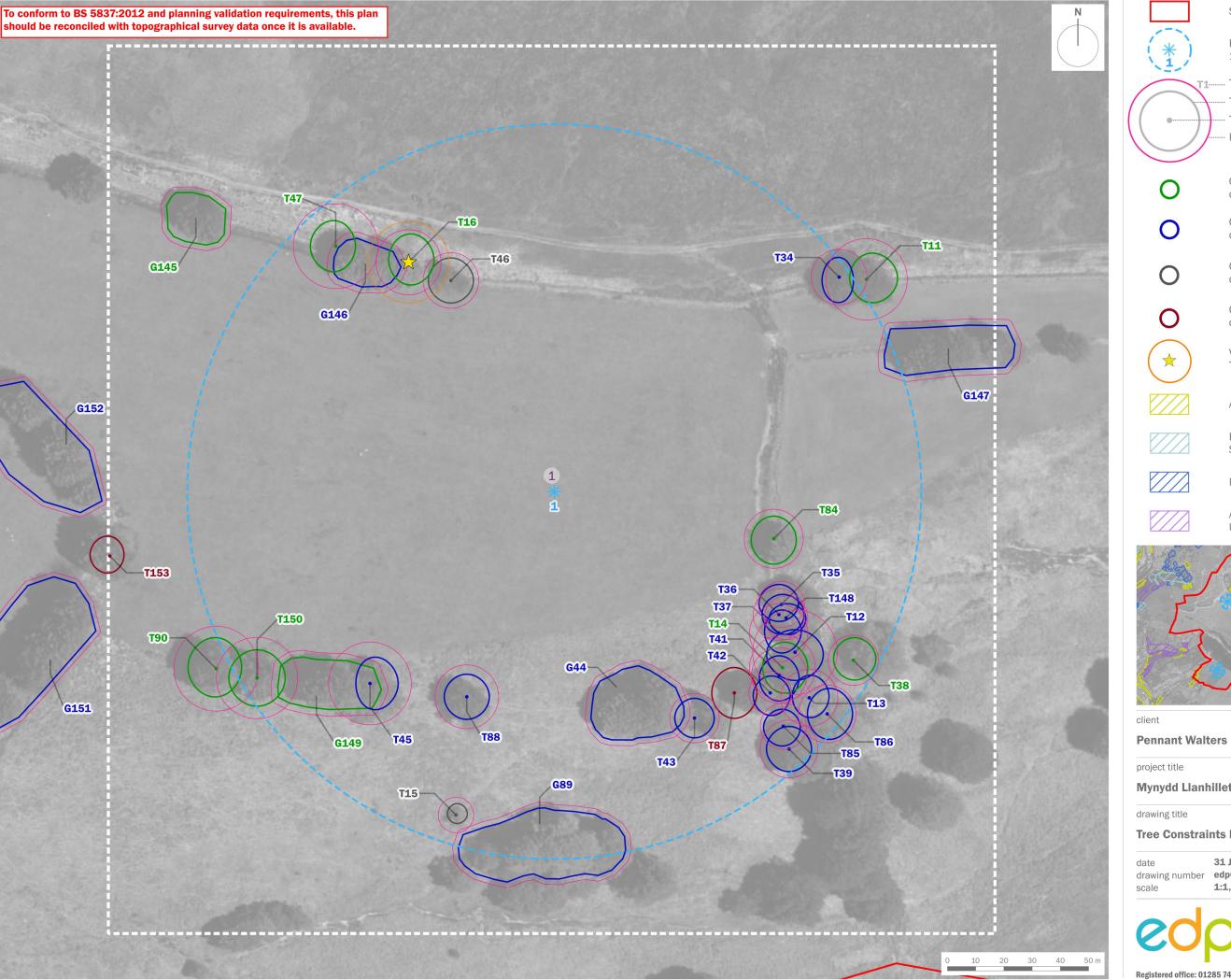
 date
 31 JULY 2024
 drawn by
 GYo

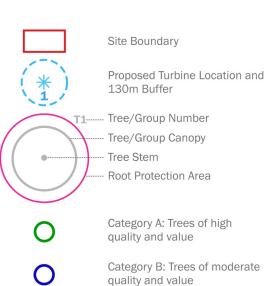
 drawing number
 edp6367\_d138b
 checked
 DGa

 scale
 1:12,500 @ A3
 QA
 DJo

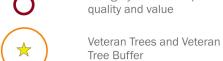


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Category U: Trees of poor

Restored Ancient Woodland Site









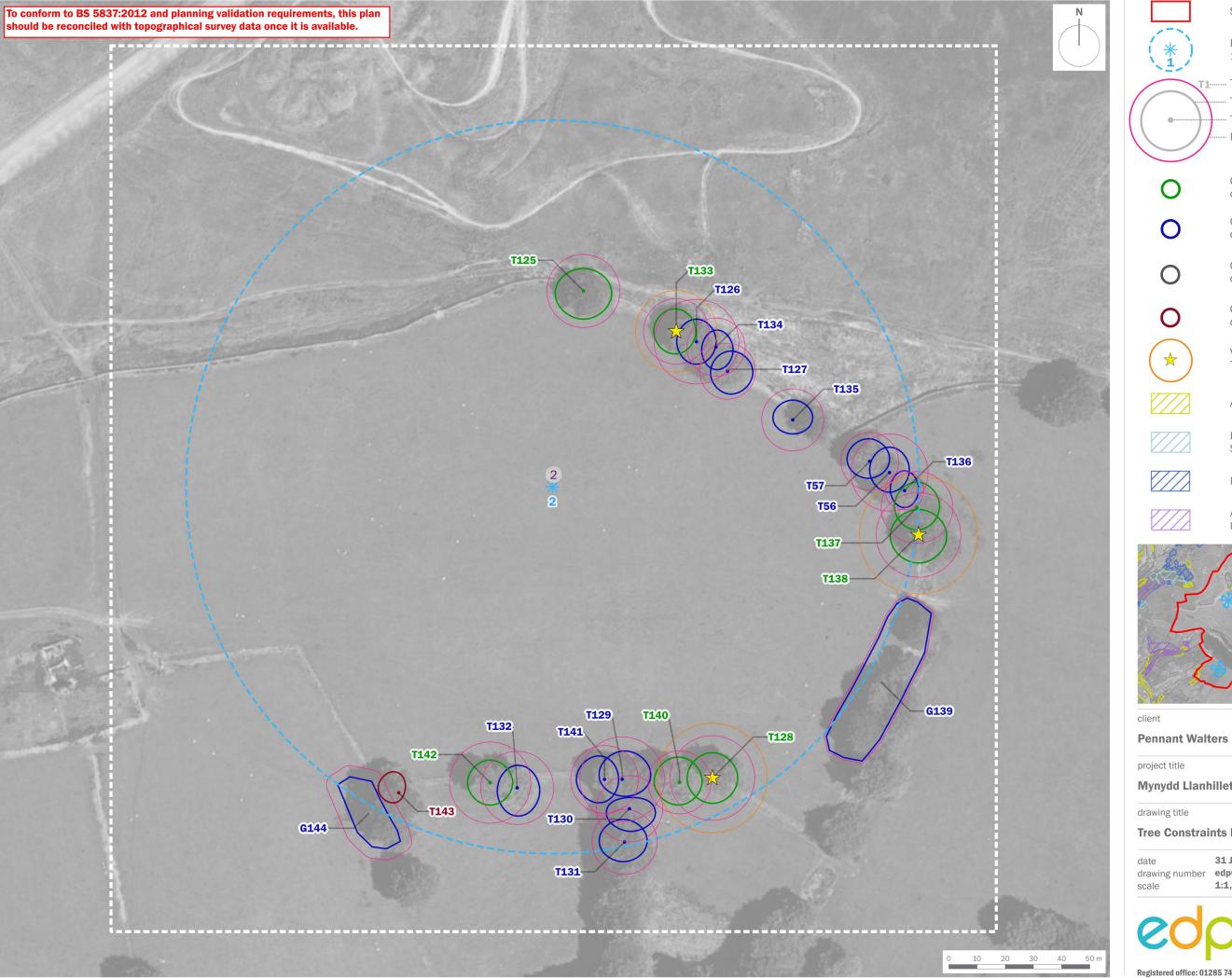
# **Mynydd Llanhilleth Wind Farm**

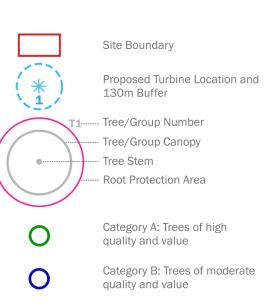
# Tree Constraints Plan (Sheet 1 of 3)

date	31 JULY 2024	drawn by	GYo
drawing number	edp6367_d138b	checked	DGa
scale	1:1,250 @ A3	QA	DJo



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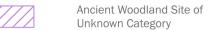
Category C: Trees of low quality and value

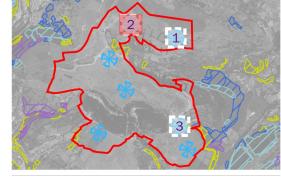
Ancient Semi-natural Woodland











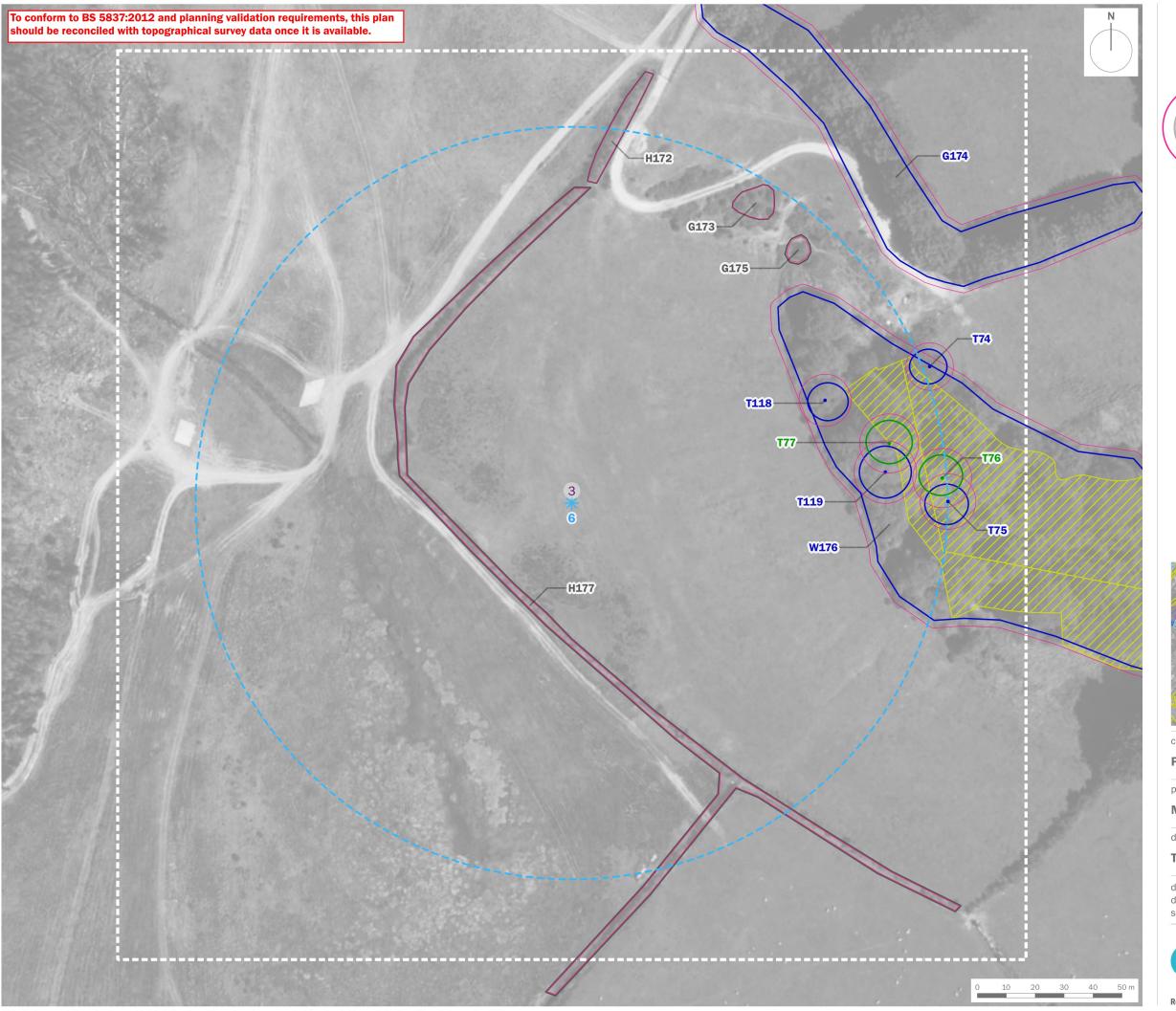
# **Mynydd Llanhilleth Wind Farm**

# **Tree Constraints Plan (Sheet 2 of 3)**

date	31 JULY 2024	drawn by	GYo
drawing number	edp6367_d138b	checked	DGa
scale	1:1,250 @ A3	QA	DJo



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Category B: Trees of moderate quality and value

Category C: Trees of low quality and value

Category U: Trees of poor quality and value

Veteran Trees and Veteran Tree Buffer

Plantation on Ancient Woodland

Ancient Semi-natural Woodland

Site

Restored Ancient Woodland Site

Ancient Woodland Site of Unknown Category



client

#### **Pennant Walters**

project title

# **Mynydd Llanhilleth Wind Farm**

drawing title

# **Tree Constraints Plan (Sheet 3 of 3)**

date 31 JULY 2024 drawn by GYo drawing number edp6367\_d138b checked DGa checked 1:1,250 @ A3 QA DJo



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