

Archaeology Wales

Llwyncelyn, Porth, Rhondda Cynon Taff

Archaeological Desk-based Assessment



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Report No. 1051

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Summary

An Archaeological Desk-based assessment was carried out to assess the archaeological potential of the site of a proposed wind turbine on hills above Porth, Rhondda Cynon Taff. The site is located just below the summit of the hill in an area of rough grazing on the eastern edge of the Rhondda Landscape of Special Historic Importance. A probable Bronze Age cairn is located on the southern side of the proposed development site, while two medieval house platforms and the site of a Bronze Age hoard are located over 1km to the north. The proposed development will have an indirect impact on all the recorded archaeological sites, as well as the Rhondda Historic Landscape, however these impacts are considered to be relatively minor. A walkover survey was also carried out to establish whether traces of previously unrecorded archaeology could be found. No further archaeological sites were identified and the archaeological potential of the site is considered to be low.

1. Introduction

In February 2012, Archaeology Wales was commissioned by Abi Roberts of Geraint John Planning Ltd to carry out an archaeological desk-based assessment for the site of a proposed turbine located on land to the north of Llwynceilyn, Porth, Rhondda Cynon Taff (NGR: ST 03527 93126). The proposed development comprises the erection of a single turbine, 75m high from ground to blade tip, on land currently under rough grazing.

The proposed development site lies on the eastern edge of the Rhondda Landscape of Special Historic Importance. A probable Bronze Age burial cairn is located on the southern side of the proposed development area, while a cluster of house platforms of probable medieval date (Scheduled Ancient Monuments) are located 1.2km to the north-west. As a result, Glamorgan Gwent Archaeological Trust determined that an archaeological desk-based assessment should be carried out to assess the potential for archaeology on the site and the potential impact of the development on the registered Historic Landscape and the Scheduled Ancient Monuments.

The desk-based assessment involved an appraisal of all the documentary and cartographic sources pertaining to the site, a study of the aerial photographs held by the RCAHMW in Aberystwyth and a site visit. The work was carried out by Amelia Pannett in March 2012.

2. Site Description

2.1 Location, Geology and Topography

The proposed development area is located on the north-facing slopes of a low hill on the eastern side of Rhondda Fach. The site is located 1.4km to the north of Llwynceilyn, Porth, Rhondda Cynon Taff at approximately 340m AOD (fig. 1). The site occupies ground that slopes gently to the north-east, and is contained within the substantial remains of a nineteenth century stone boundary wall. To the north-east is a twentieth century conifer plantation, while to the south-west the land rises fairly steeply to the summit of the hill 500m away. To the south-east and north-west, there are extensive views across the flanks of the hill to the surrounding hills of the South Wales valleys.

The underlying geology is Carboniferous Brithdir Sandstone (British Geological Survey 2001).

2.2 Historical Background

The proposed development site lies on the eastern edge of the Rhondda Landscape of Special Historic Importance, close to the point where the two Rhondda Valleys, Rhondda Fawr and Rhondda Fach, meet. The Rhondda is recognised by the Cadw/ICOMOS register for its role in the industrial history of the South Wales Coalfields. The area is one of the largest and best-known mining landscapes in Wales, and comprises a series of small communities strung along the valleys of Rhondda Fawr and Rhondda Fach between Pontypridd, Maerdy and Treherbert.

Prior to the onset of industrialisation in the mid-1800s, the valleys of the Rhondda were sparsely populated, with small farming communities exploiting both the river valleys and the surrounding upland landscapes. In 1803 the Rhondda was described by the antiquarian and traveller B.H. Melkin as ‘the most beautiful of all the mountain districts in Wales’ (Cadw 2001). There is extensive evidence for the prehistoric use of the Rhondda landscapes, with finds dating from the Mesolithic to the Iron Age periods. Lithic scatters in upland areas demonstrate the exploitation of the hills during the Mesolithic and Neolithic periods, probably for hunting, while the discovery of the remains of a small late Neolithic structure, possibly a house, at Cefn Glas provide evidence for more established settlement (GGAT 2012). Evidence for later prehistoric use of the Rhondda includes many Bronze Age burial cairns, including one within the proposed development area and a probable cairn group 1km to the north, and Iron Age settlement remains (GGAT 2012).

Evidence for medieval and early post-medieval occupation of the Rhondda is relatively sparse, with a small number of house platforms and field systems recorded. These indicate that the pattern of settlement continued much as it had in the prehistoric period, with both the valley floors and the upland areas exploited (GGAT 2012). A pair of possible medieval or post-medieval house platforms is recorded at Carn-y-wiwer, 1.2km north of the proposed development site. These features are visible as circular platforms terraced into the west-facing hillside above Wattstown. They are Scheduled Ancient Monuments (GM 323) and are located in close proximity to a series of probable clearance cairns, cultivation ridges and further house platforms (Cadw scheduling records held at RCAHMW).

The arrival of mining industry in the early to mid-nineteenth century resulted in a huge expansion of settlement in the Rhondda, with the construction of new houses and infrastructure along the valley bottom effectively destroying all trace of earlier settlements (GGAT 2012). The area around Porth was exploited during the early phases of mining in the Rhondda, with a number of working sites in existence by the mid-nineteenth century. The town of Porth grew up around these mining sites in the later nineteenth century, between 1841 (when the Tithe map was surveyed) and 1875. It appears first on the OS 1st Edition map of 1875, as a small settlement comprised predominantly of housing. A number of quarry sites are recorded by the OS on the hills above Porth, although most of the land is given over to rough grazing.

3. Desk Based Assessment Results

3.1 Consultation

The following sources were consulted:

- Heritage Environment Records (HER) data held by Glamorgan Gwent

- Archaeological Trust
- National Monuments Record (NMR) held by RCHAMW Aberystwyth
- National Library of Wales
- Cadw
- Glamorgan Record Office

3.2 HER Data

Four sites of archaeological significance are recorded on the HER within 1km of the proposed development site (fig. 2):

1. PRN 00580m

NAME *SITE NAME NOT KNOWN*

NGR *ST02589363*

COMMUNITY *Ynysgir*

TYPE *Bronze Age, Hoard, RANK: 1*

DESCRIPTION *Two socketed axes found in the valley of the Rhondda Fach. A hoard of two axes with broken loops found on the edge of a small quarry.*

2. PRN 00581m

NAME *Carn-y-Wiwer S*

NGR *ST02759398*

COMMUNITY *Ynysgir*

TYPE *Medieval, Platform, RANK: 1*

STATUS *HLW, scheduled ancient monument GM323*

DESCRIPTION *Pair of irregular small platforms on W-facing shoulder of Carn-y-Wiwer, in open moorland, each 10m x 5m, with poorly-drained hood end, irregular hood, and substantial rubble platform 1m high.*

3. PRN 00584m

NAME *CEFN GWYNGUL*

NGR *ST03609298*

COMMUNITY *Ynysgir*

TYPE *Bronze Age, Cairn, RANK: 1*

DESCRIPTION *This cairn, was described by RCAHMW in 1966 as 'traces of what may have been the base of a circular mound, now a vague platform 14.6m in diameter and 0.3m high'. It was still recognisable as a cairn in 1979, but is now so degraded that it is no longer possible to determine for certain which of two slight mounds it is. Both lie beneath an E-W field boundary as noted in earlier descriptions. One is at SS0360992990 which appears on the N side of the boundary as a change in angle of the hillslope at its putative E (downhill side), and as a very slight mound on the S side. The other is at SS0357992986 which appears on the N side of the boundary with changes of angle in the hillslope possibly defining its E and W sides and a ditch on its N side, and on the S side of the boundary as a very slight mound. The mounds of both have approximately the same diameter on the S side of the boundary where they are best defined. Four cairns were apparently shown on early editions of the OS.*

Dimensions: c16m diameter; height c0.3m (1966/1976) On a shelf in ground falling gently to the E. Traces of what may have been the base of a circular mound, now a vague platform 14.6m in diameter and 0.3m high. It is divided almost equally from E

to W by a modern wall, for the construction of which the stones of the cairn have no doubt been robbed. Four cairns are shown altogether about here on old OS maps, but the land has been ploughed, and such swellings as remain look entirely natural. (Source 01) (1979) A robbed and mutilated cairn as described by RCAHM. No other cairns were noted in the vicinity.

4. PRN 04025m

NAME SITE NAME NOT KNOWN

NGR ST0378593628

COMMUNITY Ynysybwl and
Coed-y-Cwm

TYPE Post-Medieval, Triangulation point, RANK: 1

DESCRIPTION Trig point as noted on OS 6 inch 2nd edition 1900 map.

3.3 Map Regression

1842 Tithe Map, Llanwonno Parish

The 1842 Tithe map for Llanwonno Parish (fig. 3) depicts the proposed development site within an expanse of unenclosed rough grazing that extends along the length of the hill top (903). The Tithe Apportionment lists the fields surrounding the proposed development area as:

No.	Field Name	Owned/tenanted by	Type
903	Mountain	Charles Kemmeys/Thomas Thomas	Pasture
902	Mountain	Charles Kemmeys/Thomas Thomas	Pasture
901		Charles Kemmeys/Thomas Thomas	Pasture
284	Mynydd	Richard Davies/John Edmonds	Pasture
284a	Banwen	Richard Davies/John Edmonds	Pasture
285	Waun Mynydd	Richard Davies/John Edmonds	Pasture
286	Coed Cae	Richard Davies/John Edmonds	Pasture
878	Coed Cae	David Samuel/William Rees	Pasture
879	Mynydd	David Samuel/William Rees	Pasture
185	Mynydd	Rev. Geroge	

		Thomas/Thomas Jones	
209	Sheep walk		Path

1877 OS 1st Edition Map

The OS 1st Edition Map of 1877 (fig. 4) depicts the proposed development site as a roughly triangular field of rough, boggy grazing. The substantial stone field boundary has been constructed by this time, bringing the site into the enclosed fields on the edge of the rough mountain grazing.

OS Map of 1947

The OS map of 1947 (fig.5) shows that nothing has changed within the proposed development area. Immediately to the east of the field, beyond the nineteenth century stone boundary wall, is a newly established conifer plantation.

3.4 Aerial Photographs

All of the aerial photographs held by the RCAHMW covering the proposed development site were examined. One from 1977 shows it as a stretch of open moorland pasture enclosed by the stone boundary walls. Immediately to the east is a large area of forestry ploughing, with several footpaths crossing the area. A second photograph from 1997 similarly shows the site as an area of enclosed moorland pasture (fig. 6) with the site of the forestry plantation to the east. Neither image shows any archaeological features.

4. Site Visit

A site visit was carried out on the 2nd March 2012 in dry and sunny conditions. The proposed development area comprises a field of rough grazing enclosed by the remains of a once substantial stone boundary wall (fig. 7). This would have been up to 5ft high but is now largely fallen along the southern and western edges. Along the southern edge of the field is a large drainage ditch and a roughly metalled track connecting a field gate at the south-eastern and south-western corners of the field. The field itself comprises undulating rough grazing with boggy, rush filled, hollows and several large piles of gravel and soil that appear to have been used by motorbikes or BMX bicycles – these are all modern features. Two relatively modern quarry pits are located on the eastern side of the site, close to the field boundary. These have been used for dumping rubbish in more recent times.

On the southern side of the field are the denuded remains of a probable Bronze Age cairn (PRN 00584m). The site survives as a low circular feature, around 15m in diameter and up to 0.3m high (fig. 7). It is crossed on the southern side by the denuded remains of the field wall, and continues into the adjacent field where it is also visible as a circular rise. The top of the cairn is undulating, with small slabs of sandstone visible below the turf. Three substantial boulders lie on the surface of the feature, slightly embedded into the turf, which may represent the remains of a central setting of some description. The views from the probable cairn extend north-eastwards across the proposed development site towards the conifer plantation, northwards along the summit of the hill and eastwards towards the hills above Pontypridd. The land rises to the summit of the hill to the south and west, blocking views towards the Rhondda valley.

No previously unrecorded archaeological features were identified during the field walkover.

The house platforms (PRN 00581m) are located on the upper, west-facing, slopes of the hill overlooking Rhondda Fach. They survive as rounded platforms terraced into the rough grass covered hillside. From the site the views are extensive across the lower end of the Rhondda Fach, across Wattstown and towards Porth (fig. 8). To the north-east of the site a wind farm comprising at least four turbines can be seen - this is situated on the hill above Ferndale 4km away. The setting of these Scheduled Ancient Monuments is dominated by modern development, with the terraced houses of the Rhondda, modern infrastructure such as telephone masts and wind turbines and the railway line dominating the visual and auditory aspect of the site.

The location of the Bronze Age hoard was not definitively established, however the site is located on the steeply sloping west-facing hill on the eastern side of Rhondda Fach. The area comprises a mix of rough grazing, gorse shrubs and shrubby trees with a number of footpaths running through it. The proposed development site is not visible.

From the Rhondda Historic Landscape around Porth and Wattstown the view towards the proposed development site is restricted by the topography, with the steeply rising valley sides limiting views of the hilltops. It is probable that the turbine will be partly visible from some areas of Rhondda Fach.

5. Assessment of Impact

5.1 Criteria for Assessing Impact

Impact was assessed in terms of both the potential physical effect the proposed development might have on the archaeological resource, and the effect on the setting of archaeological sites including visibility to and from the site. The longevity of the impact was also considered, as well as whether the impact was reversible:

- Permanent impacts - those that persist beyond the predicted operational lifetime of the development. All direct impacts are considered to be permanent.
- Temporary impacts - arise as a result of the presence of elements of the development but which would be removed by the dismantling of those elements. Temporary impacts can be short-term (e.g. construction phase impacts); or long-term (arising from the long-term presence of the development affecting the setting of a site or feature).
- Reversible impacts - those that are removed by the decommissioning/dismantling of the development.
- Irreversible impacts - those that persist beyond the lifetime of the development. All permanent and direct impacts are irreversible.

It is acknowledged that not all impacts are negative; indeed some impacts may have a positive effect on the cultural heritage of an area:

- **Beneficial** impacts are those that contribute to the value of a site or area through the enhancement of desirable characteristics or the introduction of new, positive attributes. In terms of cultural heritage, beneficial impacts include those that add to an appreciation of the site and/or its setting.
- **Neutral** impacts occur where the development can be accommodated

comfortably by the archaeological resource while neither contributing to nor detracting from its value.

- **Adverse** impacts are those that detract from the value of a site through a reduction in, or disruption of, valuable character components or patterns, or the introduction of new inappropriate characteristics. In terms of cultural heritage, adverse impacts include those that detract from an appreciation of the site and/or its setting, or compromise views to or from the site.

The scale of the impact on archaeological sites must be determined in conjunction with an assessment of its significance except where impacts are considered to be positive or where the total destruction of a site is the likely outcome of development. Significance is assessed according to the following criteria:

- *Very High* - World Heritage Sites (including nominated sites). Assets of acknowledged international importance. Assets that can contribute significantly to acknowledged international research objectives;
- *High* - Scheduled Monuments (including proposed sites). Undesignated assets of schedulable quality and importance. Assets that can contribute significantly to acknowledged national research objectives;
- *Medium* - Designated or undesignated assets that contribute to regional research objectives;
- *Low* - Designated and undesignated assets of local importance. Assets compromised by poor preservation and/or poor survival of contextual associations. Assets of limited value, but with potential to contribute to local research objectives;
- *Negligible* - Assets with very little or no surviving archaeological interest;
- *Unknown* - The importance of the resource has not been ascertained.

The scale of impact is as follows:

- **Major** - change to most or all key archaeological materials, such that the resource is totally altered. Comprehensive changes to setting.
- **Moderate** changes to many key archaeological materials, such that the resource is clearly modified. Considerable changes to setting that affect the character of the site.
- **Minor** - changes to key archaeological materials, such that the asset is slightly altered. Slight changes to setting.
- **Negligible** - Very minor changes to archaeological materials, or setting.
- **No Change**

5.2 Predicted Impacts on the Heritage Resource

5.2.1 Recorded Archaeological Sites

The predicted impact of the proposed development on the archaeological sites recorded in the HER will be assessed following the criteria above.

Bronze Age Hoard (PRN 00580m)

The significance of the Bronze Age hoard find spot is considered to be negligible/unknown. The proposed development site is not visible from the location of the hoard and therefore the potential impact of the proposed development is considered to be **No Change**.

Medieval House Platforms (PRN 00581m)

The sites are considered to be of high significance as they are Scheduled Ancient Monuments. There will be no direct impact on the monuments as a result of the proposed development, however there will be indirect impacts on the setting of the sites. The indirect impact on the setting of the sites will be adverse but temporary/reversible, with the dismantling of the turbine infrastructure at the end of the lifespan of the development removing the impact. There is over 1km distance between the proposed development and the Scheduled Ancient Monuments, while the historic character of the landscape surrounding the sites has been severely impacted by nineteenth and twentieth century development in and around Rhondda Fach on the historic setting of the sites. The predicted impact of the proposed development is, therefore, considered to be **Minor**.

Bronze Age Cairn (PRN 00584m)

The probable Bronze Age cairn is considered to be of low/uncertain significance due to its poor state of preservation and the lack of clarification about its Prehistoric origin. There will be no direct impact on the site as a result of the proposed development. There will be an adverse temporary/reversible effect on the setting of the probable monument, this is predicted to be **Moderate**.

Trig Point (PRN 04025m)

The post-medieval trig point on the summit of the hill to the south of the proposed development site can be considered to be of negligible significance. There will be no direct impact on the site through the proposed development, with the indirect impact considered to be adverse temporary/reversible. The predicted indirect impact is **Minor**.

5.3 Rhondda Landscape of Special Historic Importance

The proposed development site lies on the eastern edge of the Rhondda Landscape of Special Historic Importance, and therefore the construction of the turbine will have no direct impact on the historic landscape. The Registered Landscape is considered to be of high significance, although the historic character of the area has been impacted by recent development along the valleys. Views towards the proposed development area from the west are obscured by the local topography, with the site obscured from view along much of the lower Rhondda Fach and Rhondda Fawr. It is predicted that the turbine will be partly visible from the area around Wattstown in the Rhondda Fach, and Dinas in the Rhondda Fawr. This indirect impact is considered to be adverse but temporary/reversible and **Minor**.

6. **Discussion and Conclusions**

The proposed turbine development will be located in a landscape containing a small number of recorded archaeological sites, on the edge of the Rhondda Landscape of Special Historic Importance. The site comprises a field of rough pasture surrounded by a nineteenth century stone boundary wall, within which are the denuded remains of a probable Bronze Age cairn, two post-medieval quarry sites and a number of modern spoil tips. Two medieval house platforms (Scheduled Ancient Monuments) are located 1.2km to the north of the proposed development area, with the site of a Bronze Age hoard located on the side of the valley 1km to the north-west. None of these sites will be directly impacted by the proposed development, although there is a possibility of previously unrecorded sub-surface archaeology on the site.

The proposed development will have an indirect impact on all the recorded archaeological features and the Rhondda Historic Landscape, however the impact will be temporary, lasting only as long as the turbine is operational. For the Bronze Age hoard site, which is not intervisible with the proposed development area, there will be no change in the landscape setting as a result of the turbine construction. For the medieval house platforms, the trig point and the Rhondda Historic Landscape, the impact is predicated to be minor, causing only minimal change to their landscape setting. The impact on the setting of the probable Bronze Age cairn is predicted to be moderate.

The proposed development is one of a number of similar modern developments that have occurred in the lower Rhondda valleys. Other developments include a wind farm above Ferndale and the erection of two large mobile phone masts above Ynyshir and a third above Porth.

7. Sources Consulted

Data Sources

HER for 1km from the proposed development site (held by Glamorgan Gwent Archaeological Trust)

Cadw Scheduling Records for Carn-y-Wiwer Building Platforms (held by RCAHMW)

NMR records for Carn-y-Wiwer House Platforms (held by RCAHMW)

NMR records for Cefngwyngul cairn (held by RCAHMW)

Cartographic Sources

1845 Tithe Map for the Parish of Llanwonno (NLGW)

1877 OS 1st Edition map of Porth (Promap)

1947 OS map of Porth (Promap)

Aerial Photographs (held by RCAHMW)

CPE/UK/1977 2079

CPE/UK/1997 4080

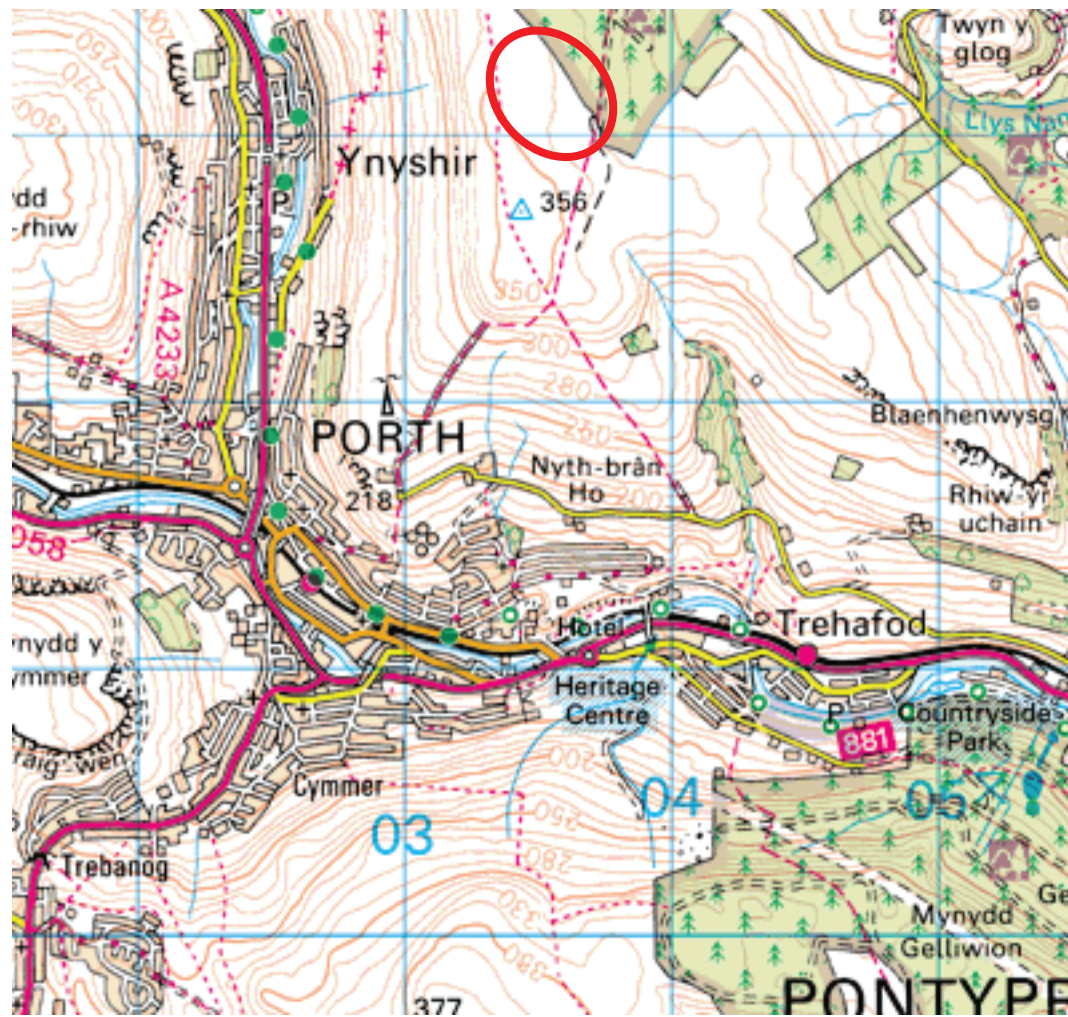


Fig. 1
Location of
proposed
development site

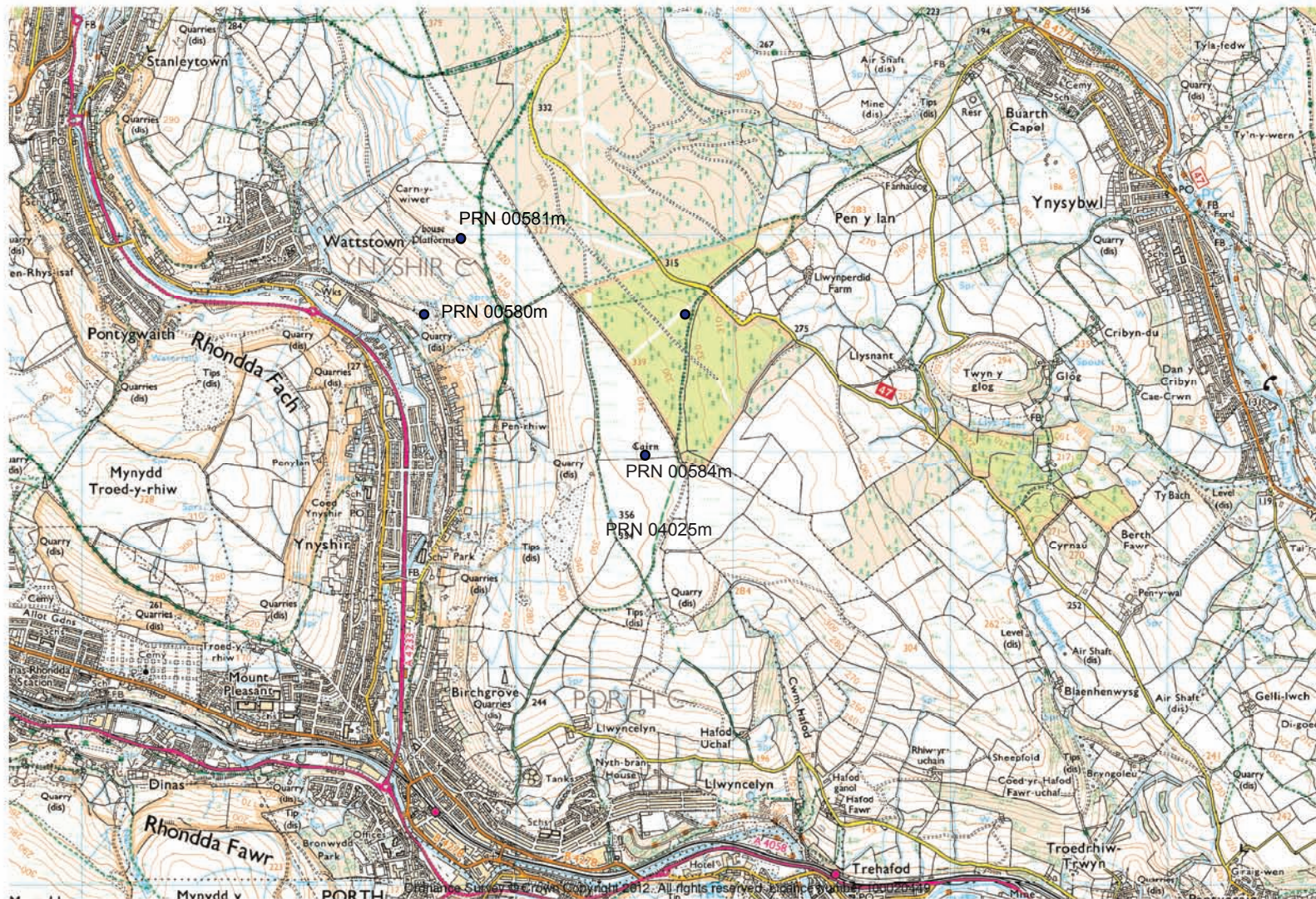


Fig. 2
 Sites listed on the
 HER within 1km
 of the proposed
 development
 site



Fig. 3
1842 Tithe Map of Llanwonno
Parish showing approximate
location of proposed
development site

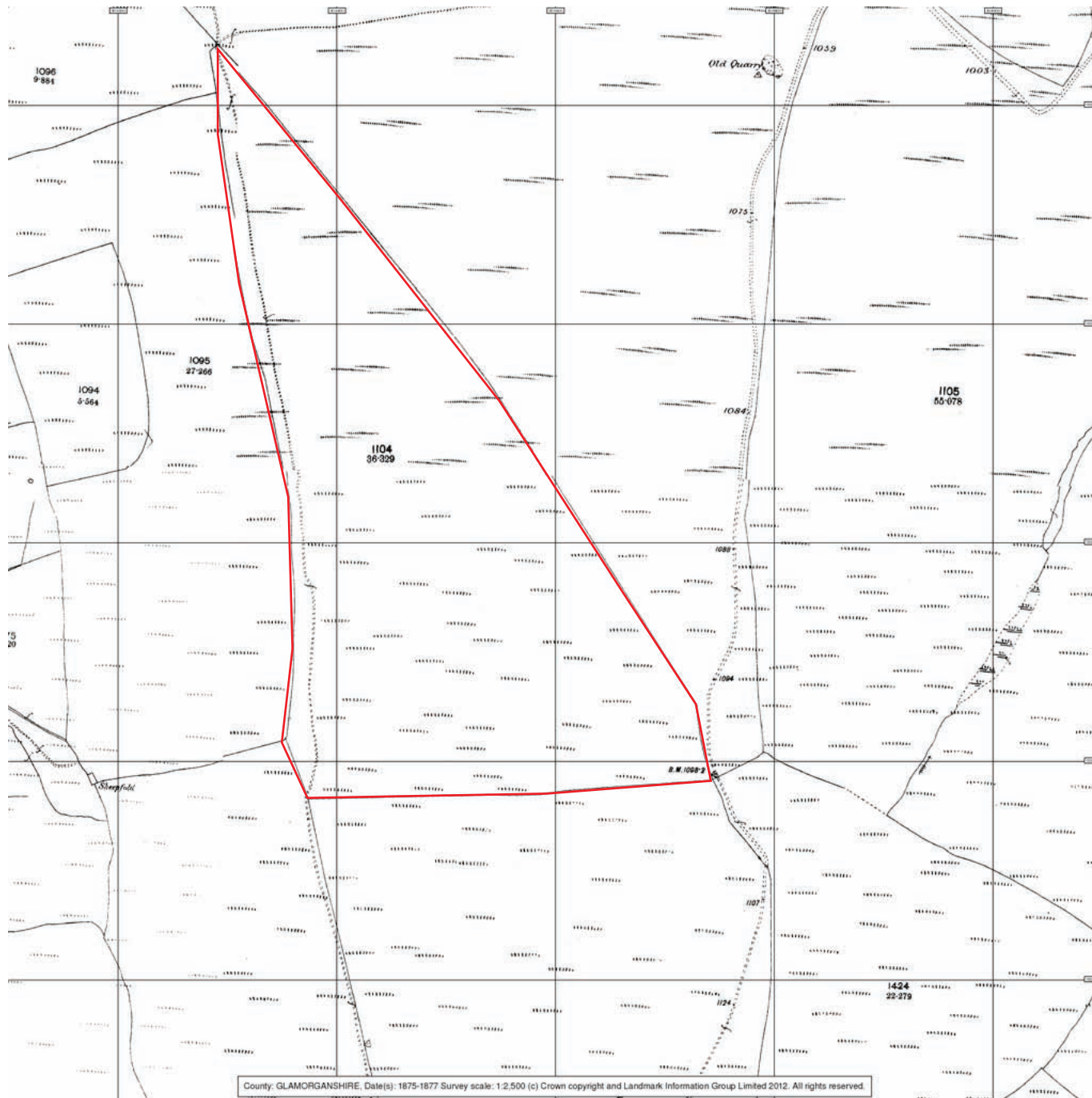
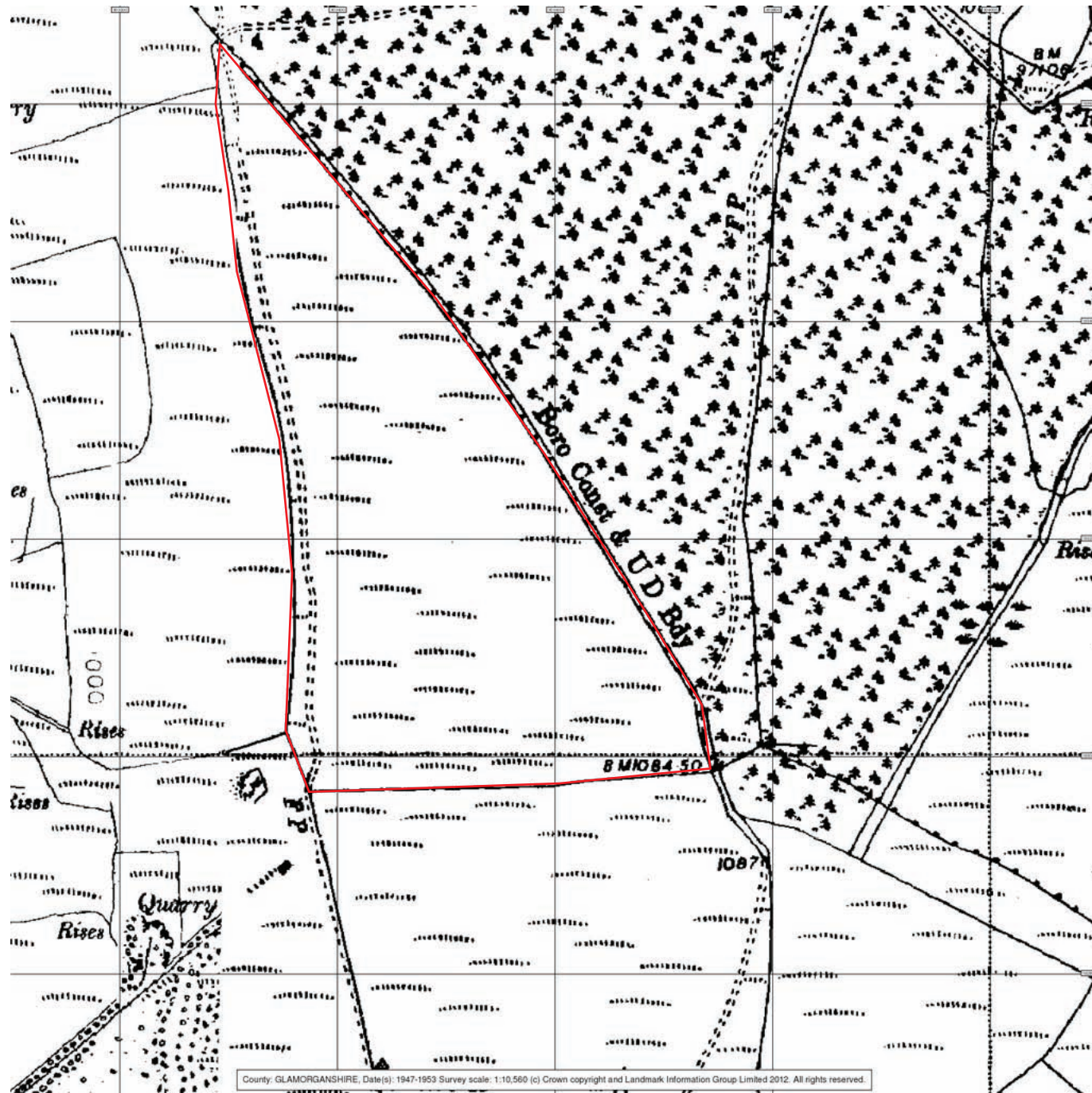


Fig. 4
OS 1st Edition Map
of 1877 showing
location of
proposed
development
site



County: GLAMORGANSHIRE, Date(s): 1947-1953 Survey scale: 1:10,560 (c) Crown copyright and Landmark Information Group Limited 2012. All rights reserved.

Fig. 5
OS Map of 1947
showing proposed
development site
with the newly
planted conifer
plantation



Fig. 6
Aerial photograph
from 1997 showing
the proposed
development site.

(c) RCAHMW

Panorama across the proposed development area from the probable Bronze Age Cairn



View south-east across the probable Bronze Age Cairn
Scale = 2m



Modern quarry pit, looking north.
Scale = 2m

Fig. 7
Views of proposed
development site

Proposed Turbine Location



Porth



Fig. 8
View south from
the House Platforms
towards the
proposed
development site

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