

# *Archaeology Wales*

## **Land off Cefn Gallod, Trefin, Pembrokeshire**

### **Geophysical Survey**



Report No. 2041

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# Archaeology Wales

## Land off Cefn Gallod, Trefin, Pembrokeshire

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Report No.2041

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## Contents

<b>Summary .....</b>	<b>2</b>
<b>Crynodeb .....</b>	<b>2</b>
<b>1. Introduction .....</b>	<b>3</b>
1.1 Location and Scope of Work .....	3
1.2 Site Description .....	3
1.3 Archaeological and Historical Background .....	3
<b>2. Aims and Objectives .....</b>	<b>4</b>
<b>3. Methodology .....</b>	<b>4</b>
3.1 Geophysical Survey .....	4
3.2 Data Processing and Presentation .....	5
<b>4. Geophysical Survey Results.....</b>	<b>6</b>
4.1 Introduction to the results .....	6
4.2 Features of Potential Archaeological Interest (Figure 6 - Blue).....	7
4.3 Features of Geological Origin (Figure 6 - Pink) .....	7
4.4 Dipolar Responses (Figure 6 - Yellow) .....	7
<b>5. Conclusions.....</b>	<b>8</b>
<b>6. Bibliography.....</b>	<b>8</b>
<b>Figures .....</b>	<b>9</b>
<b>Appendix I – Written Scheme of Investigation.....</b>	<b>14</b>

## Figures

Figure 1. Location of site and plan of site boundary .....	9
Figure 2. Raw data.....	10
Figure 3. Data clipped to +-30nT and destriped.....	11
Figure 4. Data clipped to +-10nT and destriped.....	12
Figure 5. Annotations of features .....	13

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## **Summary**

*Archaeology Wales was commissioned by Harries Planning Design Management to carry out a geophysical survey on land off Cefn Gallod, Trefin, Pembrokeshire, SA62 5AP (henceforth – the site), centred on NGR SM 84205 32536 (Figures 1).*

*The survey was carried out on 20 December 2021, in advance of the proposed development which comprised plans for the construction of eleven, two-storey residential units with associated works. The planning application is NP/21/0577/FUL. The local planning authority is the Pembrokeshire Coast National Park Authority (henceforth – PCNPA).*

*The aim of the geophysical survey was to determine the nature and extent of any buried archaeological features within the proposed development area. The work was undertaken using a Bartington Grad601 dual fluxgate gradiometer.*

*One area within the site shows archaeological potential. This is located at the western end, where linear and curvilinear features mark out the possible remains of a foundation for a former structure. Set out around the southern-most section of these linears are a number of single, distinct responses which could be related to the feature, as they are clustered around this area.*

*It is recommended that, if documentary evidence of the nature of these anomalies can not be defined by the landowner then a strip, map and excavate be carried out limited to this part of the field.*

## **Crynodeb**

Comisiynwyd Archaeoleg Cymru gan Harries Planning Design Management i gynnal arolwg geoffisegol ar dir oddi ar Gefn Gallod, Trefin, SA62 5AP (o hyn ymlaen – y safle), yn canolbwyntio ar NGR SM 84205 32536 (Ffigurau 1).

Cynhaliwyd yr arolwg ar 20 Rhagfyr 2021, cyn y datblygiad arfaethedig a oedd yn cynnwys cynlluniau ar gyfer adeiladu un ar ddeg o unedau preswyl deulawr gyda gwaith cysylltiedig. Y cais cynllunio yw NP/21/0577/FUL. Yr awdurdod cynllunio lleol yw Awdurdod Parc Cenedlaethol Arfordir Penfro (PCNPA o hyn ymlaen).

Nod yr arolwg geoffisegol oedd pennu natur a maint unrhyw nodweddion archeolegol claddedig yn ardal y datblygiad arfaethedig. Gwnaethpwyd y gwaith gan ddefnyddio graddiometer fflwcs ddeuol Bartington Grad601.

Mae un ardal o fewn y safle yn dangos potensial archeolegol. Mae hwn wedi'i leoli yn y pen gorllewinol, lle mae nodweddion llinellol a chromliniol yn nodi olion posibl sylfaen ar gyfer strwythur blaenorol. Wedi'u gosod o amgylch rhan fwyaf deheuol-de'r llinolau hyn mae nifer o ymatebion unigol, gwahanol a allai fod yn berthnasol i'r nodwedd, gan eu bod wedi'u clystyru o amgylch yr ardal hon.

Argymhellir, os na all y perchennog tir ddiffinio tystiolaeth ddogfennol o natur yr anomaledau hyn, yna dylid cyfyngu ar stribed, map a chloddiaid i'r rhan hon o'r cae.



# **1. Introduction**

## **1.1 Location and Scope of Work**

- 1.1.1 Archaeology Wales (henceforth – AW) was commissioned to carry out a geophysical survey on land off Cefn Gallod, Trefin, Pembrokeshire, SA62 5AP, centred on NGR SM 84205 32536 (Figure 1). The site is currently made up of unmanaged grassland. The survey was carried out on 20 December 2021,
- 1.1.2 The purpose of the archaeological mitigation (geophysical survey) is to provide Pembrokeshire Coast National Park Authority (henceforth – PCNPA) with sufficient information regarding the nature of archaeological remains on the site of the development, the requirements for which are set out in Planning Policy Wales (Ed.11, February 2021), Section 6, and Technical Advice Note 24. All work will conform to the Standard and Guidance for Geophysical Survey (ClfA December 2020) and be undertaken by suitably qualified staff to the highest professional standards.
- 1.1.3 A Written Scheme of Investigation (Cole, 2021) was produced to outline the scope and methodology of the proposed archaeological work which was approved in advance by DAT-DM.
- 1.1.4 The survey was undertaken as a single phase of work. The work was managed by Charley James-Martin BA (Hons) MCIfA, Archaeology Wales, and the site work was carried out by Senior Supervisor Daniel Moore BA (Hons) MA and Jack Dowling.

## **1.2 Site Description**

- 1.2.1. The proposed development site is located on the eastern extent of the village of Trefin to the south of Ffodd Abercastell and east of Cefn Gallod Trefin, Pembrokeshire, SA62 5AP, NGR SM 84205 32536. The site slopes gently southwards and is bound by high level hedgerow to the north and south, with established trees along the south and west boundary. The site has historically been used as a paddock area for grazing horses/unmanaged grassland. It is currently accessed via a gateway entrance in the north-west corner off Ffordd Abercastell.
- 1.2.2. The underlying geology varies on the site. At the western and southern ends is Unnamed Igneous Intrusion, Ordovician – Microgabbro, formed approximately 444 to 485 million years ago in the Ordovician Period. At the northern and eastern ends of the site the geology is Penmaen Dewi Shale Formation - Mudstone. This is sedimentary bedrock formed approximately 466 to 478 million years ago in the Ordovician Period (BGS 2022).

## **1.3 Archaeological and Historical Background**

- 1.3.1 The historic core of Trefin (PRN7422), which runs along the main linear frontages, was designated as a Conservation Area in 1997. It is characterised by a 19th Century streetscape on a medieval street layout, branching out from a triangular, central green that retains an old water pump. There are short terraces, dominant detached houses and chapels, with outlying farmhouses and cottages. Buildings are traditionally of

simple form and scale, with the prominent use of local rubble, stone and slate. They are commonly rendered/pebble dashed, some with forecourt walls to the front. Gaps between properties enable views out of the village over the coastal landscape beyond, providing a clear sense of place.

- 1.3.2 There are several Grade II listed buildings with Trefin. The Elim Baptist Chapel (LB12438), a cottage upon Ffordd Abercastell (LB12437), a farm house and garden named Cartlett House (LB12018/LB12441), and Calvinistic Methodist Chapel (LB12439) that was built in 1786 and was rebuilt in 1834. However, none of these are in the immediate vicinity of the development
- 1.3.3 To the south of the village there is the possible site of a medieval Bishop's Palace (PRN 7573). However, the precise location of the bishop's residence is unclear. The lack of remains suggests that the residence may have been made of wood.

## **2. Aims and Objectives**

- 2.1.1 The primary objective of this survey is to locate and describe potential archaeological features present within the proposed development area. The work is intended to determine the presence or absence of archaeological remains, and where remains are identified to establish their character, distribution, extent and relative significance, providing sub-surface data to inform any future on-site works.
- 2.1.2 It is the aim of this report to provide information which is sufficiently detailed to allow the archaeological resource to be better understood. The information may then be used to help inform further archaeological work undertaken in association with the proposed development or to allow the developer to adjust their plans.

## **3. Methodology**

### **3.1 Geophysical Survey**

- 3.1.1 The survey was carried out using Bartington Grad601-2 dual sensor fluxgate gradiometers. This instrument has been chosen due to its proven efficient and effective method of locating sub-surface archaeological anomalies on greenfield sites. The machine consists of two high stability fluxgate sensors suspended on a single frame, accurately aligned, that can detect localised magnetic anomalies compared with the general magnetic background. When mapped in a systematic manner this allows changes in the magnetic field resulting from differing features in the soil to be plotted. Strong magnetic anomalies will be generated by iron-based objects or areas modified by heat, such as hearths and kilns. More subtle anomalies may be generated by changes, typically in the iron-oxide content, of underlying soils, compared to the natural subsoil. This enables the detection of material infilling sub-surface archaeological features such as ditches, pits and structural remains. Data from this may be mapped at closely spaced regular intervals, to produce an image that may be interpreted to locate buried archaeological features (Clark, 1997) (Aspinall et al, 2011). The work includes a comprehensive assessment of regional context within

which the archaeological evidence rests and aims to highlight any relevant research issues within national and regional research frameworks.

- 3.1.2 Fluxgate gradiometry has the advantage of being able to identify the broadest range of sub-surface archaeological feature types and can detect such anomalies at a range of soil depths (typically 0.3-1m).
- 3.1.3 The site was located by a GeoMax Zentih 25 GPS. All survey points were located with the GPS and plotted onto an OS base map.
- 3.1.4 Detailed survey was carried out in grids of 20m x 20m along zig-zag and parallel traverses spaced at 1m intervals, recording data points spaced at 0.25m intervals to a maximum instrument sensitivity of 0.1nT in accordance with all relevant professional standards (EAC 2016). The survey mode was set to bi-directional (traverses walked alternately north/south). Incomplete survey lines resulting from irregular area boundaries or obstacles were completed using the 'dummy log' key. At regular intervals the data was downloaded in the field onto a laptop computer for storage and assessment.
- 3.1.5 The only limitation in the survey was a building located at the south-west corner of the site which caused magnetic disturbance and was therefore avoided.

### **3.2 Data Processing and Presentation**

- 3.2.1 Following the completion of the detailed survey, processing and analysis took place using the TerraSurveyor v.3 software package.
- 3.2.2 A composite of each detailed survey area has been created and processed using Terrasurveyor v.3. The report includes raw and unclipped data in both greyscale, colour, and x-y trace plots. Every effort has been made to reduce the instrument directional sensitivity in the field rather than reliance on post data-collection processing.
- 3.2.3 The final results have been presented at an appropriate scale tied to the Ordnance Survey National Grid.
- 3.2.4 The most typical method of visualising the data is as a greyscale image. In a greyscale plot, each data point is represented as a shade of grey, from black to white at either extreme of the data range. A limited number of standard operations can be carried out to process the data, including clipping and graduated shade. The data was analysed using a variety of parameters and styles and the most useful of these were saved as \*TIF images and displayed (Figures 5-7) using Adobe Illustrator software. The results of the survey were then overlaid onto a digital map of the study area. This was then used to produce interpretation figures (Figure 8).
- 3.2.5 All works were undertaken in accordance with the standard required by The Chartered Institute for Archaeologist's Standard and Guidance for Archaeological Geophysical Survey (2014) and current Health and Safety legislation.

## 4. Geophysical Survey Results

### 4.1 Introduction to the results

4.1.1 A number of response types with differing polarities are usually captured across a site. Polarity is the phrase used to describe the measurement of the magnetic response. Anomalies with positive polarity have values above 0nT, while anomalies with a negative polarity have values below 0nT. It is possible for anomalies to have values of both positive and negative polarity.

4.1.2 A number of terms might be used to describe the different types of anomalies recorded within the dataset. These are:

- Dipolar: these anomalies consist of a single positive anomaly with an associated negative response. There should be no separation between the two polarities of response. These anomalies will be created by a single feature and the interpretation will depend on the magnitude of the magnetic measurements.
- Bipolar: these anomalies are comprised of both positive and negative responses. They can be made up of any number of positive and negative responses. The interpretation of the anomaly will depend on the magnitude of the magnetic field strength. A weak response may be caused by a clay field drain while a strong response will probably be caused by a metallic service.
- Positive: These anomalies are usually related to backfilled cut features, where the fill material is magnetically enhanced compared to the surrounding matrix. These anomalies can be caused by features of archaeological origin, but they can also be caused by former field boundaries and ploughing. It is possible that some may be of natural origin.
- Positive anomaly with associated negative response: These responses are caused by a single feature. Such responses could be caused by the cables of modern services, although magnetically weaker responses could relate to earthworks and field boundaries.
- Negative: These anomalies are generally caused by raised earthen features where material has built up that has a lower magnetic magnitude relative to the background soil.
- Magnetic debris: this consists of numerous dipolar responses spread over an area. Weaker responses could represent general ground disturbance with stronger responses being more indicative of a spread of ferrous debris. Moderately strong responses may be the result of a spread of thermoremanent material such as bricks or ash.

4.1.3 The anomalies recorded within the dataset across the site relate to geological and potential archaeological interest. Where possible, interpretations of the anomalies have been provided, although it is difficult to be certain on the functions of many of the positive linear anomalies.

## **4.2 Features of Potential Archaeological Interest (Figure 6 - Blue)**

- 4.2.1 In the western-most end of the site lie a number of linear and single point features, annotated in blue (Figure 6). The linears form two distinct areas.
- 4.2.2 The southern area forms a mostly enclosed space that is somewhat rectangular. It has straight sides except in the south-east corner, where the linears become curved. At its north-west side there is a distinct corner. The west side may be truncated. The area is approximately 10m in length and 5m in width. Recorded around the outside of this area is a negative response. Because it runs around the outside of the enclosed area, it looks to be where excess soil would have been dumped after digging out the linears, creating a slight rise in the earth around the feature. At the north-east corner of the area, the negative response runs into the feature where there is a break in the positive linear. This could be indicative of an opening into the area, accentuated by packed and slightly raised earth.
- 4.2.3 One further linear runs north-west towards the gate from the southern enclosure in the same alignment on its west side. Again, there is a negative response to its west side, showing where the fill may have been dumped when digging this out. Another possible linear lies east of it, running parallel, but fades quickly as it moves north. These linears look connected to the southern area by the fact that they are exactly the same width as the more southern area.
- 4.2.4 A number of positive points occur around the eastern side of the southern-most linears. The strength of these anomalies vary widely, but because none of them are dipoles, rather just positive responses, they are likely infilled cut features. Their pattern around the linears suggests some kind of relation to them. They could be purposefully dug holes, possibly for posts.

## **4.3 Features of Geological Origin (Figure 6 - Pink)**

- 4.3.1 There are number of low amplitude, curvilinear responses running throughout much of the site (Figure 6). These are likely geological or at least natural features. The band of igneous rock running through the site may also have contributed to these responses.

## **4.4 Dipolar Responses (Figure 6 - Yellow)**

- 4.4.1 There are a few dipolar responses mainly at the northern end and the eastern end of the site (Figure 6). They are of low magnitude and therefore are likely not ferrous objects, but rather very small pieces of metal on the surface or fragments of fired ceramic material.

## 5. Conclusions

- 5.1.1 A fluxgate gradiometer survey has been successfully undertaken across the site. The clear anomalies at the western end of site indicate a possible former structure, though the results make it difficult to give an idea of date.
- 5.1.2 No structure has been documented in historic maps, and Lidar data (DTM) at a resolution of 2m shows no microtopography. Therefore, the features in this area were either something temporary or present before the first OS maps.
- 5.1.3 More information may be supplied by the landowner which could possibly aid in ascertaining the nature of the possible structure. If the date of this possible structure remains unknown it is suggested that a strip, map, excavate be carried out covering the area of the blue anomalies marked on Figure 6.

## 6. Bibliography

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Figure 1: Cefn Gallod, Trefin  
Site boundary lined in red  
Scale 1:800



Figure 2: Cefn Gallod, Trefin  
Raw data ( $\pm 100\text{nT}$ )

Scale 1:800



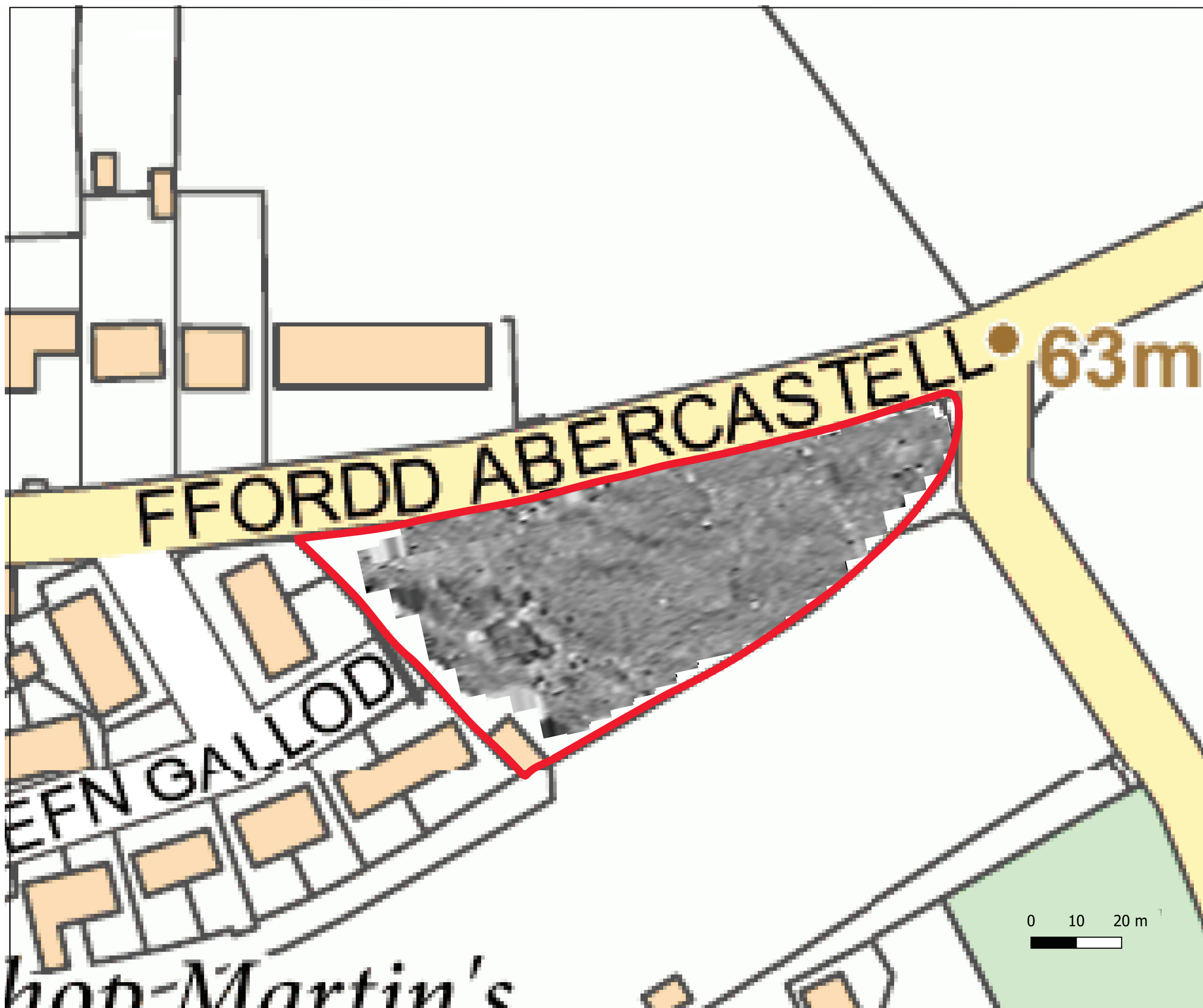


Figure 3: Cefn Gallod, Trefin  
Data clipped to  $\pm 30\text{nT}$   
Scale 1:800

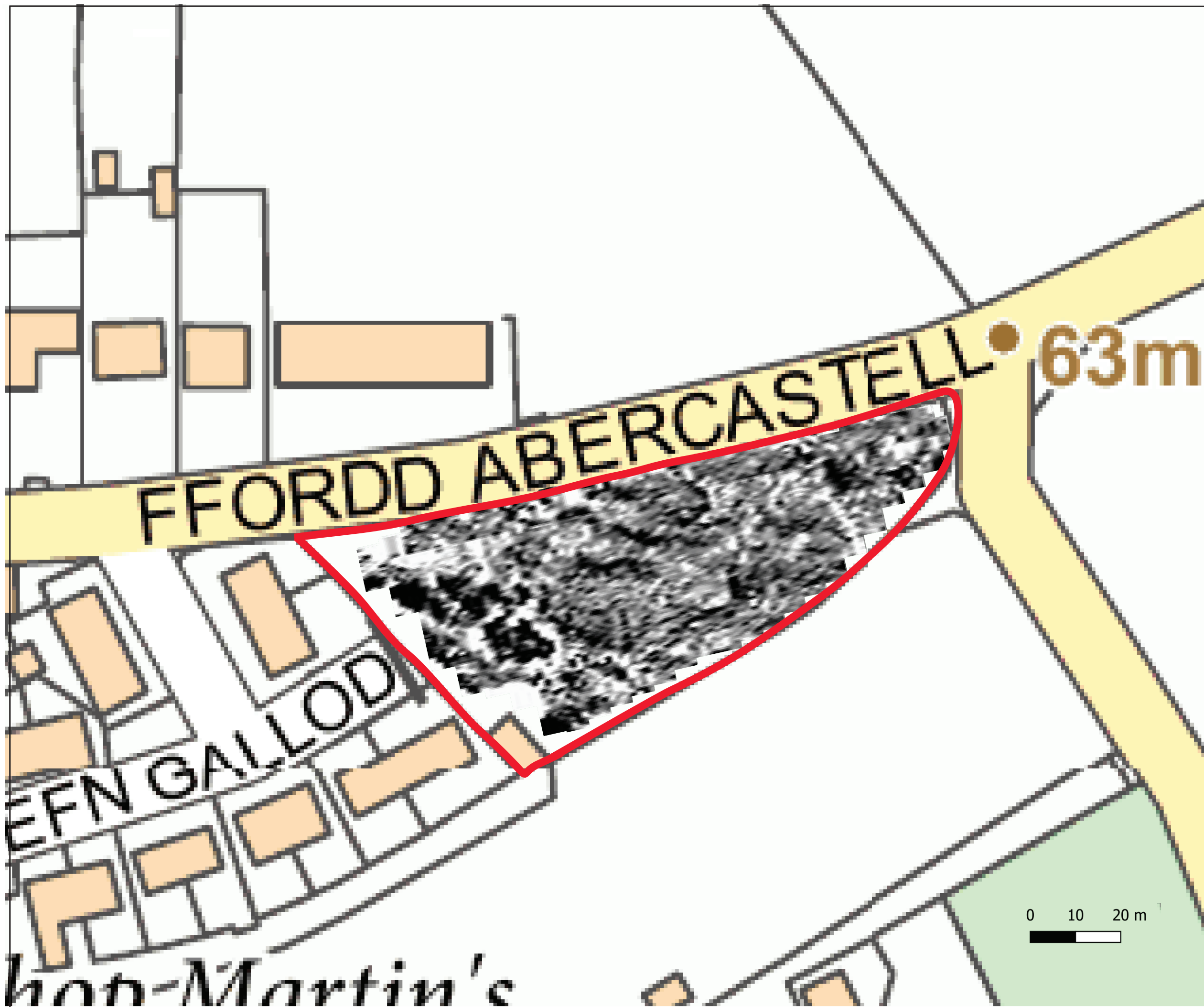


Figure 4: Cefn Gallod, Trefin  
Data clipped to  $\pm 10\text{nT}$   
Scale 1:800

0 10 20 m

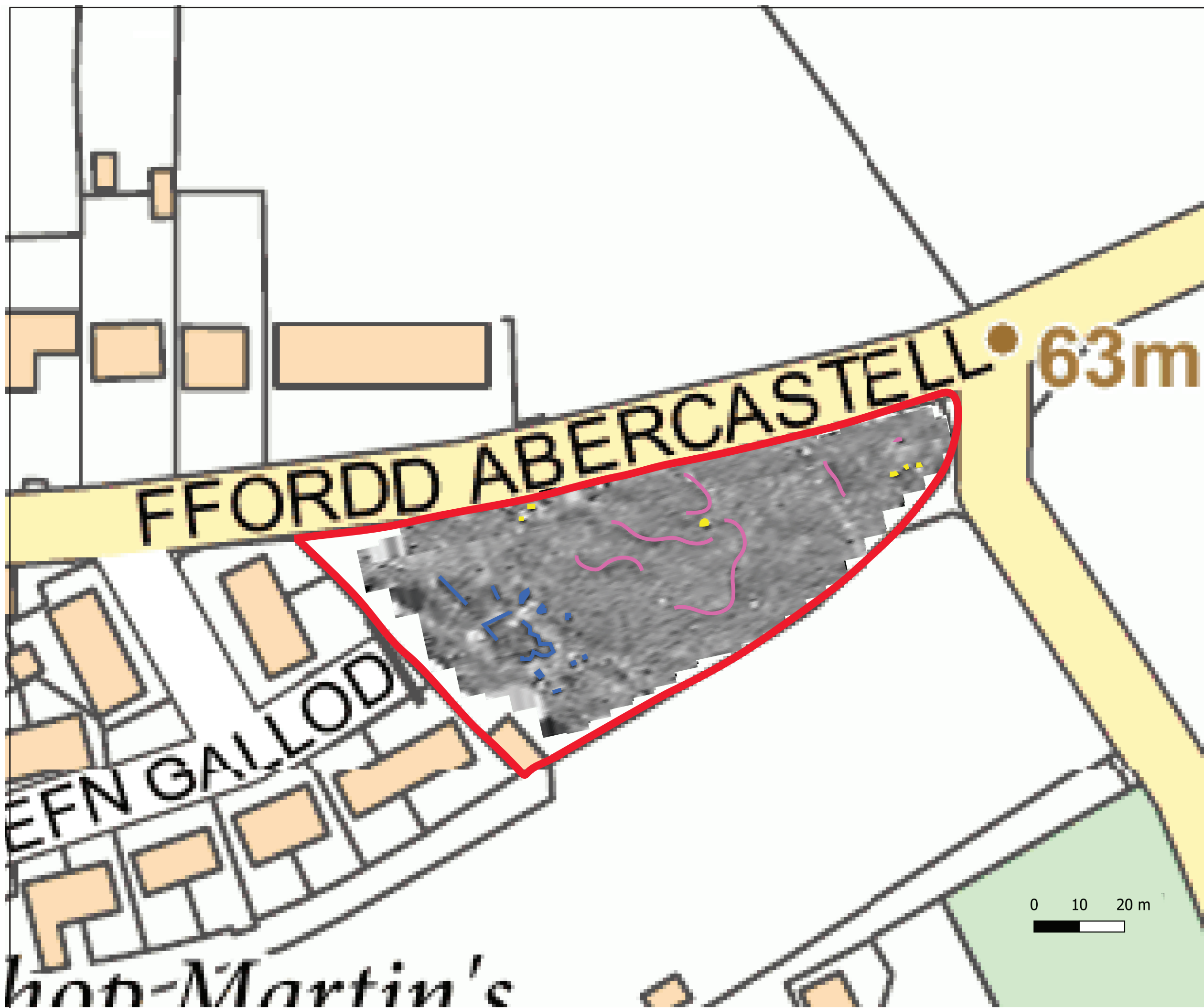


Figure 5: Cefn Gallod, Trefin  
Features annotated

Scale 1:800

## **Appendix I – Written Scheme of Investigation**

# *Archaeology Wales*

## **Written Scheme of Investigation**

### **Geophysical Survey:**

### **Land Adjacent to Cefn Gallod, Trefin, Haverfordwest**

#### **Prepared for:**

**Harries Planning Design Management**

Project No: 2945

Planning Application: NP/21/0577/FUL

October 2021

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## Contents

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
<b>2</b>	<b>Site Description &amp; Archaeological Background.....</b>	<b>1</b>
2.1	Site Description .....	1
2.2	Archaeological Background .....	1
<b>3</b>	<b>Objectives .....</b>	<b>2</b>
<b>4</b>	<b>Methodology for geophysical survey.....</b>	<b>2</b>
4.2	Data processing and presentation .....	3
<b>5</b>	<b>Monitoring.....</b>	<b>3</b>
<b>6</b>	<b>Post-fieldwork programme .....</b>	<b>4</b>
6.1	Final reporting.....	4
6.2	Site archive.....	4
6.3	Archive deposition .....	4
<b>7</b>	<b>Resources and timetable.....</b>	<b>5</b>
7.1	Standards .....	5
7.2	Staff.....	5
7.3	Equipment.....	5
7.4	Timetable of archaeological works.....	5
7.5	Insurance.....	5
7.6	Arbitration.....	5
7.7	Health and safety .....	5
<b>8</b>	<b>References .....</b>	<b>6</b>

## Figures

Figure 1.	Map showing the location of the proposed development. ....	7
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## **1 Introduction**

- 1.1.1 This Written Scheme of Investigation (WSI) details the methodology for a programme of archaeological mitigation (geophysical survey) to be undertaken at the site. The proposed development comprises plans for the construction eleven two storey residential units with associated works at Land off Cefn Gallod, Trefin, Haverfordwest, SA62 5AP (henceforth – the site), centred on NGR SM 84205 32536 (Figures 1), planning application NP/21/0577/FUL. The local planning authority is the Pembrokeshire Coast National Park Authority (henceforth – PCNPA).
- 1.1.2 This WSI has been prepared by Steven Cole (Assistant Supervisor) of Archaeology Wales Ltd (Henceforth - AW) at the request of Harries Planning Design Management. It provides information on the methodology that will be employed by AW during a geophysical survey of the site.
- 1.1.3 This WSI is to be approved by DAT-DM, on behalf of PCNPA, prior to the survey being undertaken. The purpose of the archaeological mitigation (geophysical survey) is to provide PCNPA with sufficient information regarding the nature of archaeological remains on the site of the development, the requirements for which are set out in Planning Policy Wales (Ed.11, February 2021), Section 6, and Technical Advice Note 24. All work will conform to the Standard and Guidance for Geophysical Survey (CIfA December 2020) and be undertaken by suitably qualified staff to the highest professional standards.

## **2 Site Description & Archaeological Background**

### **2.1 Site Description**

- 2.1.1 The proposed development site is located on the eastern extent of the village of Trefin to the south of Ffodd Abercastell and east of Cefn Gallod Trefin, Haverfordwest, SA62 5AP, NGR SM 84205 32536. The site slopes gently southwards and is bound by high level hedgerow to the north and south, with established trees along the south and west boundary. The site is currently accessed via a gateway entrance in the north western corner off Ffordd Abercastell and has historically been used as a paddock area for grazing horses/unmanaged grassland. The underlying geology Igneous bedrock overlain by Penmaen Dewi Shale (BGS 2021).

### **2.2 Archaeological Background**

- 2.2.1 The historic core of Trefin (PRN7422), which runs along the main linear frontages, was designated as a Conservation Area in 1997. It is characterised by a 19<sup>th</sup> Century streetscape on a medieval street layout, branching out from a triangular central green which retains an old water pump. There are short terraces, dominant detached houses and chapels, with outlying farmhouses and cottages. Buildings are traditionally of simple form and scale, with the prominent use of local rubble, stone and slate. They are commonly rendered/pebble dashed, some with forecourt walls to the front. Gaps between properties enable views out of the village over the coastal landscape beyond,

providing a clear sense of place.

- 2.2.2 There are several Grade II listed buildings with Trefin. The Elim Baptist Chapel (LB12438), a cottage upon Ffordd Abercastell (LB12437), a farm house and garden named Cartlett House (LB12018/LB12441) and Calvinistic Methodist Chapel (LB12439) that was built in 1786 and was rebuilt in 1834. However, none of these are in the immediate vicinity of the development
- 2.2.3 To the south of the village there is a possible site of medieval Bishop's Palace (PRN 7573). However, the precise location of the bishop's residence is unclear. The lack of remains suggests that the residence may have been made of wood.

### **3 Objectives**

- 3.1.1 This WSI sets out the methodology to ensure that the geophysical survey will meet the standard required by The Chartered Institute for Archaeologist's Standard and Guidance for archaeological geophysical survey (2020).
- 3.1.2 The primary objective of the work will be to locate and describe, by means of geophysical survey, archaeological features that may be present within the development area. The proposed archaeological work will attempt to elucidate the presence or absence of archaeological material that might be affected by the scheme, in particular its character, distribution, extent and relative significance.
- 3.1.3 A report will be produced that will provide information which is sufficiently detailed to allow informed planning decisions to be made that can safeguard the archaeological resource. The information could then be used to determine further archaeological investigation or appropriate mitigation strategies for any archaeological remains within the area to be implemented prior to or during the proposed development.

### **4 Methodology for geophysical survey**

- 4.1.1 The area to be surveyed will include all of the accessible development area. On-site adjustments may be required to avoid areas of magnetic interference or inaccessibility, for example wire fencing, areas of dense undergrowth and steeper slopes which may prove unsuitable for survey.
- 4.1.2 The site and all survey points will be located by GPS and plotted onto an O.S. base map. The survey will be carried out using a Bartington Grad601 Magnetometer. This is chosen as an efficient and effective method of locating archaeological anomalies on this type of site. The machine consists of two high stability fluxgates gradiometers suspended on a single frame, accurately aligned, that can detect localised magnetic anomalies compared with the general magnetic background. When mapped in a systematic manner this allows changes in the magnetic field resulting from differing features in the soil to be plotted. Strong magnetic anomalies will be generated by iron-



based objects or areas of heat-activity, such as hearths and kilns. More subtle anomalies may be generated by changes, typically in the iron-oxide content, of underlying soils, compared to the natural subsoil. This helps to detect infilling material of features such as ditches and pits, as well as overlying material such as wall lines.

- 4.1.3 Relatively level fields of low pasture provide good locations for this type of survey. Areas of significant slopes would preclude safe surveying, as would areas of dense vegetation, but previous site visits suggest the vast majority of the area should be open to survey.
- 4.1.4 Each survey area will be divided into 20m or 30m square grids along a common alignment. Within each grid, parallel traverses 1m apart will be walked at rapid pace along the same orientation. Instrument readings will be logged at 0.25m intervals, with an average cycle of 4 using an ST1 internal sample trigger. Incomplete survey lines resulting from irregular area boundaries or obstacles will be completed using the “dummy log” key.
- 4.1.5 Further survey information will be completed on the relevant pro-forma sheet. All data will be downloaded in the field into a laptop computer.

## **4.2 Data processing and presentation**

- 4.2.1 Following completion of the detailed survey, a composite of the survey area will be created and processed using the software package Terrasurveyor v.3. After downloading, the results will be plotted in 2D.
- 4.2.2 The most typical method of visualizing the data is as a greyscale image. In a greyscale, each data point is represented as a shade of grey, from black to white at either extreme of the data range. A variety of processing tools (including destriping and possibly despiking) will be used to enhance any potential archaeology. The mean level of each traverse of data will be reduced to zero and all grids matched so that there will be no differences between background levels. The data will be analysed using a variety of parameters and styles and the most useful of these will be saved as JPEG/TIFF images and displayed using Adobe Illustrator software.
- 4.2.3 The final results will be presented at an appropriate scale tied to the Ordnance Survey National Grid. A level of interpretation of these results will also be displayed.

## **5 Monitoring**

- 5.1.1 DAT-DM will be contacted approximately one week prior to the commencement of site works, and subsequently once the work is underway.
- 5.1.2 Any changes to this WSI that AW may wish to make after approval will be communicated to DAT-DM for approval on behalf of the Planning Authority.
- 5.1.3 DAT-DM will be given access to the site so that they can monitor the progress of the

work, they will be kept regularly informed about developments, both during the site works and subsequently during the post-fieldwork programme.

## **6 Post-fieldwork programme**

### **6.1 Final reporting**

6.1.1 The client report will contain, as a minimum, the following elements:

- Concise non-technical bilingual summary of the results
- Description of, and reasoning behind, geophysical survey technique
- Detailed plans of the site and survey results
- Site illustrations, related to Ordnance Datum
- Written description
- Written interpretation of results along with illustrated interpreted site plan
- Statement of local and regional context
- Conclusions as appropriate
- Bibliography
- A copy of the AW Specification

6.1.2 Copies of the report will be sent to the Client, and a copy of the report will be sent to DAT-DM for approval. Following approval, a copy will also be sent to the LPA and the regional Historic Environment Record. Digital copies will be provided in pdf format if required.

6.1.3 The report and all relevant information will be submitted to the Historic Environment Record following the guidelines and procedures laid out in the Guidance for the Submission of Data to the Welsh Historic Environment Records (WAT 2018).

6.1.4 A summary report of the work will be submitted for publication to a national journal no later than one year after the completion of the work.

### **6.2 Site archive**

6.2.1 An ordered and integrated project archive will be prepared in accordance with The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales 2017 (National Panel for Archaeological Archives in Wales) and the guidelines of the Chartered Institute for Archaeologists upon completion of the project.

### **6.3 Archive deposition**

6.3.1 The final archive will, whenever appropriate, be deposited with a suitable receiving institution. Although there may be a period during which client confidentiality will need to be maintained, copies of all reports and the final archive will be deposited no later than six months after completion of the work.

6.3.2 Copies of all reports, the digital archive and an archive index will be deposited with

the National Monuments Record, RCAHMW, Aberystwyth.

- 6.3.3 Wherever the archive is deposited, this information will be relayed to the HER. A summary of the contents of the archive will be supplied to DAT-DM.

## **7 Resources and timetable**

### **7.1 Standards**

- 7.1.1 AW works to the standards and guidance provided by the Chartered Institute for Archaeologists. AW fully recognise and endorse the Chartered Institute for Archaeologists' Code of Conduct, Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology and the Standard and Guidance for archaeological geophysical survey currently in force. All employees of AW, whether corporate members of the Chartered Institute for Archaeologists or not, are expected to adhere to these Codes and Standards during their employment.

### **7.2 Staff**

- 7.2.1 The project will be undertaken by suitably qualified AW staff. Overall management of the project will be undertaken by Charley James-Martin MCIfA, AW Project Manager.

### **7.3 Equipment**

- 7.3.1 The project will use a Bartington Grad601 set to standard specifications.

### **7.4 Timetable of archaeological works**

- 7.4.1 The work will be undertaken at the convenience of the client. No start date has yet been agreed, DAT-DM will be informed once this has been arranged.

### **7.5 Insurance**

- 7.5.1 AW is fully insured for this type of work, and holds Insurance with Aviva Insurance Ltd and Hiscox Insurance Company Limited through Towergate Insurance. Full details of these and other relevant policies can be supplied on request.

### **7.6 Arbitration**

- 7.6.1 Disputes or differences arising in relation to this work shall be referred for a decision in accordance with the Rules of the Chartered Institute of Arbitrators' Arbitration Scheme for the Institute for Archaeologists applying at the date of the agreement.

### **7.7 Health and safety**

- 7.7.1 Prior to the commencement of work AW will carry out and produce a formal Health and Safety Risk Assessment in accordance with The Management of Health and Safety Regulations 1992. A copy of the risk assessment is attached, and a copy will be kept on site and be available for inspection on request. A copy will be sent to the client (or their agent as necessary) for their information. All members of AW staff will adhere to the content of this document.

7.7.2 AW will adhere to best practice with regard to Health and Safety in Archaeology as set out in the FAME (Federation of Archaeological Managers and Employers) health and safety manual Health and Safety in Field Archaeology (2002).

## **8 References**

Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, compilation, transfer and deposition of archaeological archives.

Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, documentation, conservation and research of archaeological materials.

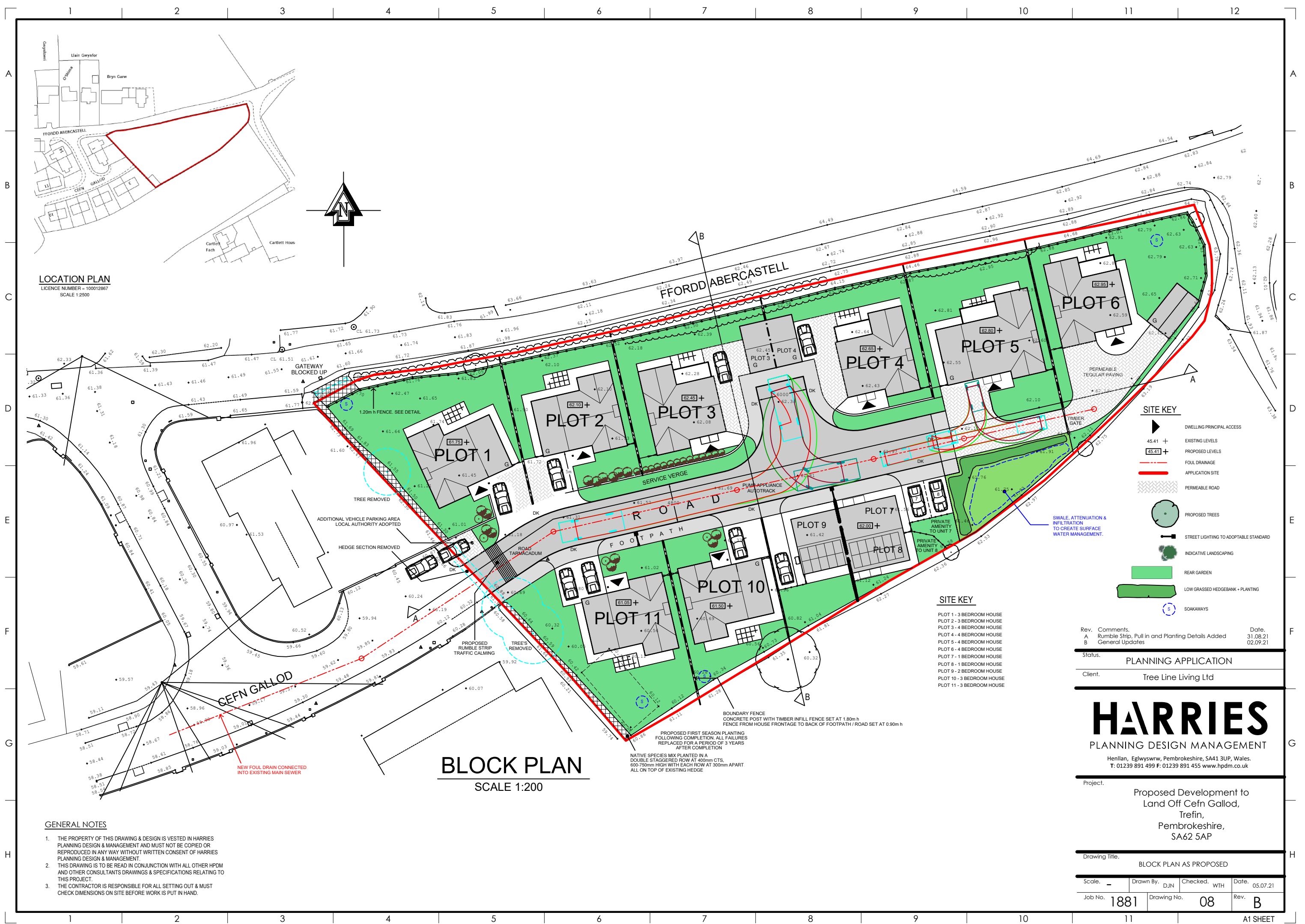
Chartered Institute for Archaeologists. 2020. Standards and Guidance for Geophysical Surveys.

James, R. 2021. Planning, design and access statement Full Application for Residential Development on Land off Cefn Gallod, Trefin, Haverfordwest, SA62 5AP (Local Development Plan Allocation HA10).

National Panel for Archaeological Archives in Wales, 2017. The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales

Welsh Archaeological Trusts, 2018. Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs).

British Geological Survey: Geology of Britain viewer:  
[www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html](http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html) (accessed 14/1/21)



LOCATION PLAN  
LICENCE NUMBER = 100012867  
SCALE 1:2500

BLOCK PLAN  
SCALE 1:200

GENERAL NOTES

1. THE PROPERTY OF THIS DRAWING & DESIGN IS VESTED IN HARRIES PLANNING DESIGN & MANAGEMENT AND MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT WRITTEN CONSENT OF HARRIES PLANNING DESIGN & MANAGEMENT.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER HPDM AND OTHER CONSULTANTS DRAWINGS & SPECIFICATIONS RELATING TO THIS PROJECT.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT & MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND.

SITE KEY

- DWELLING PRINCIPAL ACCESS
- EXISTING LEVELS
- PROPOSED LEVELS
- FOUL DRAINAGE
- APPLICATION SITE
- PERMEABLE ROAD
- PROPOSED TREES
- STREET LIGHTING TO ADAPTABLE STANDARD
- INDICATIVE LANDSCAPING
- REAR GARDEN
- LOW GRASSED HEDGE BANK + PLANTING
- SOAKAWAYS

SITE KEY

- PLOT 1 - 3 BEDROOM HOUSE
- PLOT 2 - 3 BEDROOM HOUSE
- PLOT 3 - 4 BEDROOM HOUSE
- PLOT 4 - 4 BEDROOM HOUSE
- PLOT 5 - 4 BEDROOM HOUSE
- PLOT 6 - 4 BEDROOM HOUSE
- PLOT 7 - 1 BEDROOM HOUSE
- PLOT 8 - 1 BEDROOM HOUSE
- PLOT 9 - 2 BEDROOM HOUSE
- PLOT 10 - 3 BEDROOM HOUSE
- PLOT 11 - 3 BEDROOM HOUSE

Rev.	Comments.	Date.
A	Rumble Strip, Pull in and Planting Details Added	31.08.21
B	General Updates	02.09.21

Status. **PLANNING APPLICATION**

Client. **Tree Line Living Ltd**

**HARRIES**  
PLANNING DESIGN MANAGEMENT

Henllan, Eglwysrwrw, Pembrokeshire, SA41 3UP, Wales.  
T: 01239 891 499 F: 01239 891 455 www.hpdm.co.uk

Project. **Proposed Development to Land Off Cefn Gallod, Trefin, Pembrokeshire, SA62 5AP**

Drawing Title. **BLOCK PLAN AS PROPOSED**

Scale. -	Drawn By. DJN	Checked. WTH	Date. 05.07.21
Job No. 1881	Drawing No. 08	Rev. B	

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