

**Felinfach, Bronwydd,
Carmarthenshire, SA33 6BE,
Planning Application: PL/03277
(Carmarthenshire)
HER Event Record: 126549**



Report by: Trysor

For: Susanne Williams

February 2022



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Carmarthenshire, SA33 6BE,
Planning Application: PL/03277
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By

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Trysor Project No. 2022/823
DAT HER Event Record PRN 126549

For: Susanne Williams

February 2022

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*Cover photograph: Looking across south-southeast across the proposed
development area. I, Brooks 8th February 2022*

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RHIF YR ADRODDIAD - REPORT NUMBER: Trysor 2022/823
EVENT RECORD HER PRN – DAT 126549

DYDDIAD 22^{ain} Mis Chwefror 2022 **DATE** 22nd February 2022

Paratowyd yr adroddiad hwn gan bartneriad Trysor. Mae wedi ei gael yn gywir ac yn derbyn ein sêl bendith.

This report was prepared by the Trysor partners. It has been checked and received our approval.

JENNY HALL MCIfA *Jenny Hall*

PAUL SAMBROOK MCIfA *Paul Sambrook*

Croesawn unrhyw sylwadau ar gynnwys neu strwythur yr adroddiad hwn.

We welcome any comments on the content or structure of this report.

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Trysor is a Registered Organisation with the Chartered Institute for Archaeologists and both partners are Members of the Chartered Institute for Archaeologists, www.archaeologists.net

Jenny Hall (BSc Joint Hons., Geology and Archaeology, MCIfA) had 12 years excavation experience, which included undertaking watching briefs prior to becoming the Sites and Monuments Record Manager for a Welsh Archaeological Trust for 10 years. She has been an independent archaeologist since 2004 undertaking a variety of work that includes upland survey, desk-based appraisals and assessments, and watching briefs.

Paul Sambrook (BA Joint Hons., Archaeology and Welsh, MCIfA, PGCE) has extensive experience as a fieldworker in Wales. He was involved with Cadw's pan-Wales Deserted Rural Settlements Project for 7 years. He has been an independent archaeologist since 2004 undertaking a variety of work including upland survey, desk-based appraisals and assessments, and watching briefs.

DAT	Dyfed Archaeological Trust
HER	Historic Environment Record
ID Number	A unique number used within this report to identify historic assets. Cross-references to other numbers such as PRNs, NPRNs and Designations are given in a site gazetteer in the Appendices.
NPRN	National Primary Record Number in National Monument Record held by the RCAHMW
PRN	Primary Record Number in regional HER held by Dyfed Archaeological Trust

Event Record PRN – DAT HER

PRN	DAT 126549
Name	FELINFACH
Type	NON EVENT
NGR	SN4220725479
Easting	242207
Northing	225479
Summary (English)	In February 2022 Ian Brooks of Engineering Archaeological Services visited Felinfach, Bronwydd, Carmarthenshire to undertake a geophysical survey for Trysor on behalf of their client. Site conditions were not suitable for a geophysical survey and in agreement with the archaeological advisor at Dyfed Archaeological Trust the geophysical survey was abandoned. © Trysor 2022
Crynodeb (Cymraeg)	Yn ystod Chwefror 2022, fe wnaeth Ian Brooks, Engineering Archaeological Services, ymweld â Felinfach, Bronwydd, Sir Gaerfyrddin gyda'r bwriad o gario allan arolwg geoffisegol i Trysor ar ran eu cleient. Fe ddarganfuwyd nad oedd cyflwr y safle'n addas ar gyfer arolwg geoffisegol. Felly, gyda chytundeb y cynghorydd archaeolegol yn Ymddiriedolaeth Archaeolegol Dyfed, fe ganslwyd yr arolwg archaeolegol. © Trysor 2022
Description	In February 2022 Ian Brooks of Engineering Archaeological Services visited Felinfach, Bronwydd, Carmarthenshire to undertake a geophysical survey for Trysor on behalf of their client. Site conditions were not suitable for a geophysical survey and in agreement with the archaeological advisor at Dyfed Archaeological Trust the geophysical survey was abandoned. © Trysor 2022
Sources	Trysor, 2022, <i>Felinfach, Bronwydd, Carmarthenshire, SA33 6BE, Planning Application: PL/03277 (Carmarthenshire) HER Event Record: 126549</i>
Copyright	© Trysor 2022

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1. Introduction

1.1 Mark Baggott, Chartered Surveyors & Architectural Practice, Bryncelyn, Waungilwen, Felindre, Carmarthenshire. SA44 5YF, on behalf of his client, commissioned Trysor to prepare a Written Scheme of Investigation for an archaeological geophysical survey relating to planning application number: PL/03277 (Carmarthenshire CC) for a horse ménage.

1.2 The development at SN4219525749 will consist of the construction of a horse menage, covering 1,600 square metres, approx 40 metres by 40 metres including drainage and landscaping, see Figures 1 & 2. The development would occupy part of a field to the south of an existing ménage at Felinfach, on the lower part of the eastern side of the Nant Brechfa valley and to the east of the B4301.

1.3 The geology of the development area comprises of sedimentary rocks of the Ordovician Period dating to between 444 million and 449 million years ago. These include silty mudstones of the Allt Formation which were deposited in a deep-sea environment (BGS, 2022). Overlying the bedrock is Devensian till laid down during Ice Age conditions.

1.4 The soils here are on the boundary between two different soil types. To the east of the development area the soils are categorised as *Freely draining acid loamy soils over rock* on the LandIS soil map (Cranfield Soil and Agrifood Institute, 2022). Soils of this type are of low fertility but freely draining and characteristic of steep acid upland pastures, dry heath and moor; bracken gorse and oak woodlands, covering just over 23% of the Welsh countryside. To the west of the development area the soils are categorised as *Slowly permeable seasonally wet acid loamy and clayey soils* on the LandIS soil map (Cranfield Soil and Agrifood Institute, 2021). Soils of this type are of low fertility with impeded drainage and characteristic of seasonally wet pastures and woodlands covering just over 15% of the Welsh countryside (Cranfield Soil and Agrifood Institute, 2022).



Figure 1: Location of development.

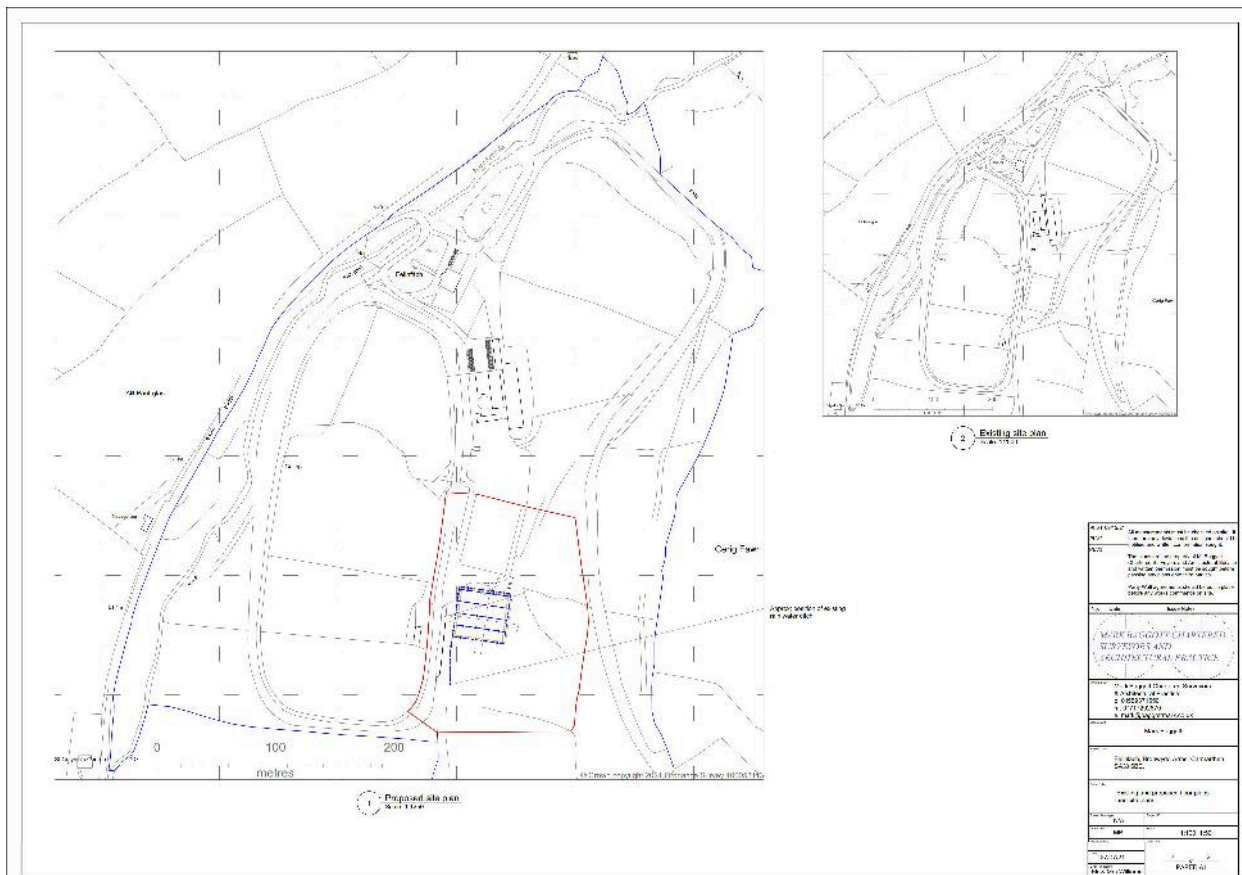


Figure 2: The ménage will occupy the area shown by the blue drainage lines, the red line is the wider application area but most of this will not be affected by the development

2. Archaeological Overview

2.1 An Iron Age defended enclosure recorded under PRN 10733 in the regional Historic Environment Record (HER) lies to the east of the development at the top of the steep slope. The hillfort is 280 metres horizontally east and also 100 metres higher.

2.2 In recent years, archaeological exploration around sites of this period and type have shown the potential for settlement outside of the main hillfort. Ian Brooks has undertaken geophysical survey to the west of Caerau Gaer scheduled monument, PE176, where a complex of settlement features were recorded (Brooks, 2018a, Brooks, 2018b, Brooks 2018c).

3. Site Visit

3.1 Ian Brooks of Engineering Archaeological Services Ltd visited Felin Fach on 8th February to undertake a geophysical survey as defined in the agreed Written Scheme of Investigation (WSI) (Trysor, 2022).

3.2 He established that the conditions were unfavourable for geophysical survey with a high level of magnetic disturbance on and around the development site. This would fail to give a consistent picture necessary to identify features.

3.3 The northern part of the proposed ménage area is under the building rubble/old fencing/telegraph poles. The area appears to have been scraped in the past before the material was dumped, see Plates 1, 2, 3, 4, 12, 17 and 18.

3.4 The southern part of the proposed ménage area lies in a field which is currently sub-divided by electric fencing; see Figure 3 & Plates 6 to 11, 13 to 16, 19, 20. The first compartment created by the fencing was less than 20 metres wide. In order to avoid interference to equipment readings at least 2 metres would have to be left between the fences and the geophysical plot. This would leave only narrow areas less than 16 metres wide.

3.5 Mike Ings at Dyfed Archaeological Trust, who advises the LPA on archaeological matters, was contacted and it was agreed that pursuing the geophysical survey would not be productive. Mike Ings stated that he would advise the LPA to recommend that a watching brief be attached as a condition instead of the pre-determination evaluation.

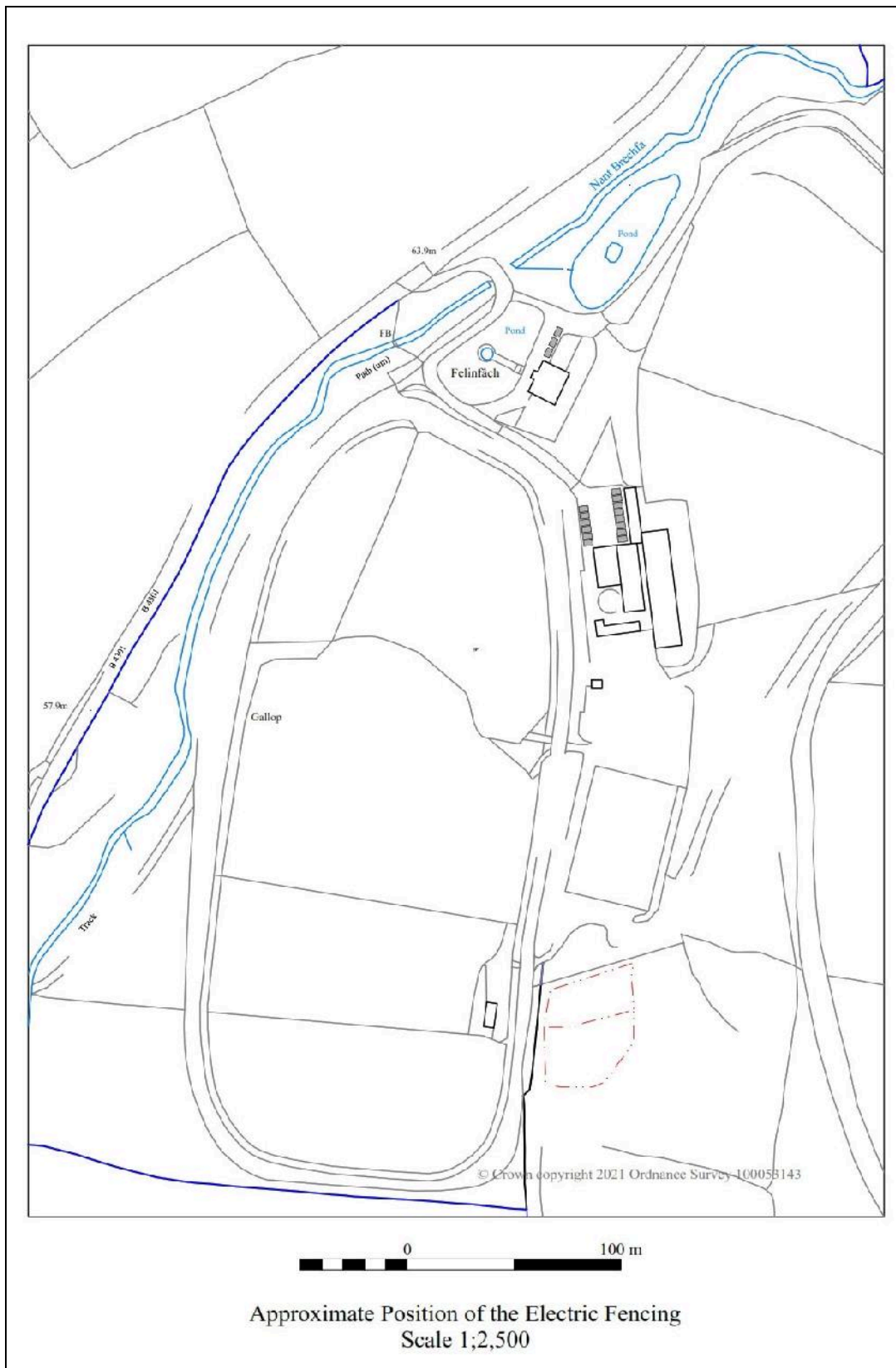


Fig 2: Location of the electric fencing

4. Bibliography

Brooks, I, 2018a, *Caerau Farm, Llandewi Velfrey, Pembrokeshire:
Geophysical Survey, Engineering Archaeological Services Client Report
2018/11* HER Event Record 114804

Brooks, I, 2018b, *Caerau Farm, Llandewi Velfrey, Pembrokeshire:
Geophysical Survey 2 Client Report 2018/12* HER Event Record
114805

Brooks, I, 2018c, *Caerau Farm, Llandewi Velfrey, Pembrokeshire:
Geophysical Survey 3 Client Report 2018/14* HER Event Record
114810

Trysor, 2022, *Written Scheme of Investigation for a Geophysical
Survey at Felinfach, Bronwydd, Carmarthenshire, SA33 6BE, Planning
Application: PL/03277 (Carmarthenshire)* HER Event Record: 126549

APPENDIX A: Photographs

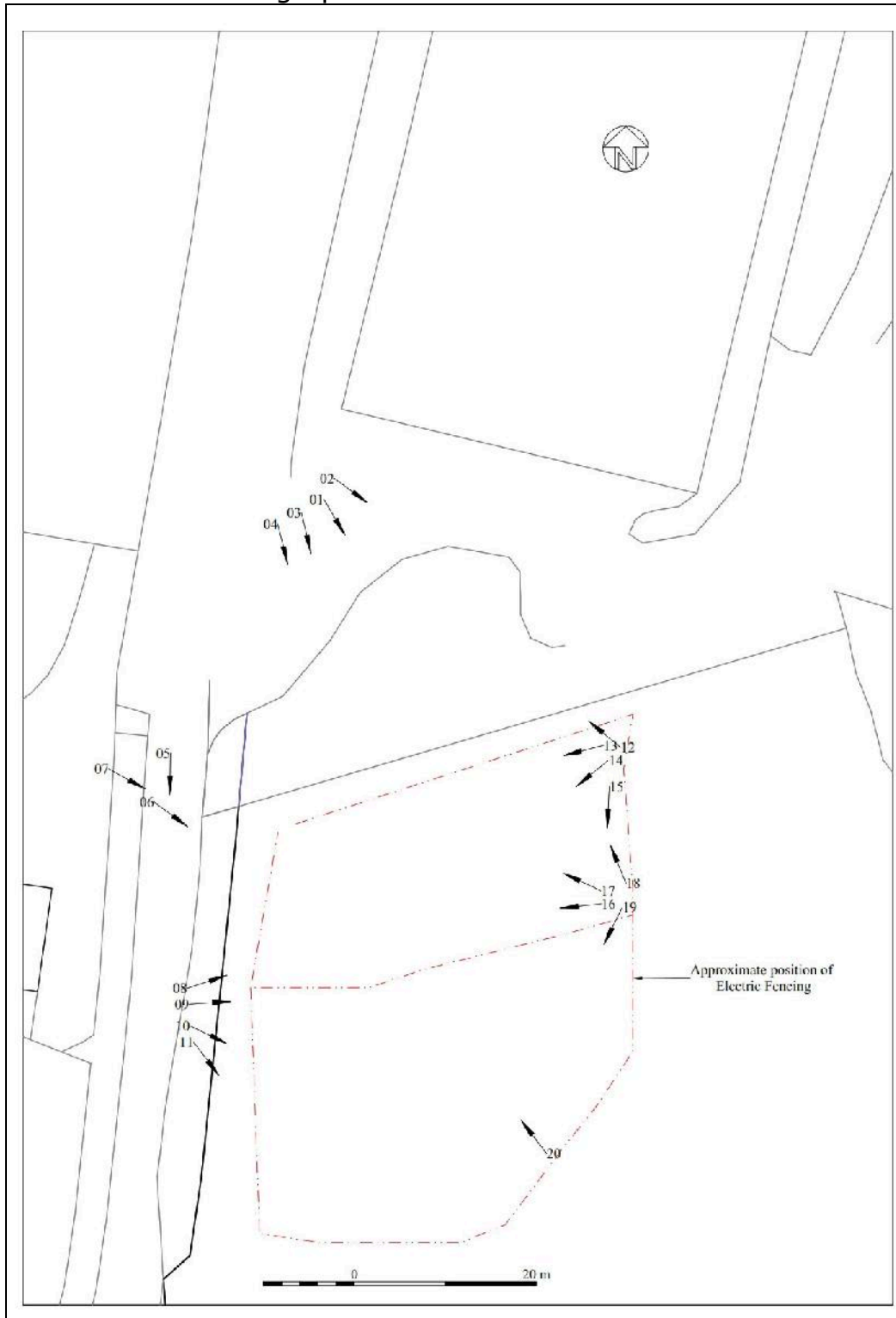


Figure 3: Location of photographs in Plates 1 to 20, taken by I Brooks, 8th February 2022



Plate 1: Felin_Fach_01.



Plate 2: Felin_Fach_02.



Plate 3: Felin_Fach_03.



Plate 4: Felin_Fach_04.



Plate 5: Felin_Fach_05.



Plate 6: Felin_Fach_06



Plate 7: Felin_Fach_07.



Plate 8: Felin_Fach_08.



Plate 9: Felin_Fach_09.



Plate 10: Felin_Fach_10.



Plate 11: Felin_Fach_11



Plate 12: Felin_Fach_12



Plate 13: Felin_Fach_13.



Plate 14: Felin_Fach_14.



Plate 15: Felin_Fach_15.



Plate 16: Felin_Fach_16.



Plate 17: Felin_Fach_17.



Plate 18: Felin_Fach_18.



Plate 19: Felin_Fach_19.



Plate 20: Felin_Fach_20.

APPENDIX B: Written Scheme of Investigation

**Written Scheme of Investigation for a
Geophysical Survey at Felinfach, Bronwydd,
Carmarthenshire, SA33 6BE,
Planning Application: PL/03277 (Carmarthenshire)
HER Event Record: 126549**

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**Written Scheme of Investigation for a
Geophysical Survey at Felinfach, Bronwydd,
Carmarthenshire, SA33 6BE,
Planning Application: PL/03277 (Carmarthenshire)
HER Event Record: 126549**

1. Introduction

1.1 Mark Baggott, Chartered Surveyors & Architectural Practice, Bryncelyn, Waungilwen, Felindre, Carmarthenshire. SA44 5YF, on behalf of his client, has commissioned Trysor to prepare a Written Scheme of Investigation for an archaeological geophysical survey relating to planning application number: PL/03277 (Carmarthenshire CC) for horse ménage.

1.2 The development at SN4219525749 will consist of the construction of a horse menage, covering 1,600 square metres, including drainage and landscaping. The development would occupy part of a field to the south of an existing ménage at Felinfach, on the lower part of the eastern side of the Nant Brechfa valley and to the east of the B4301.

1.3 The geology of the development area comprises of sedimentary rocks of the Ordovician Period dating to between 444 million and 449 million years ago. These include silty mudstones of the Allt Formation which were deposited in a deep-sea environment (BGS, 2022). Overlying the bedrock is Devensian till laid down during Ice Age conditions.

1.4 The soils here are on the boundary between two different soil types. To the east of the development area the soils are categorised as *Freely draining acid loamy soils over rock* on the LandIS soil map (Cranfield Soil and Agrifood Institute, 2022). Soils of this type are of low fertility but freely draining and characteristic of steep acid upland pastures, dry heath and moor; bracken gorse and oak woodlands, covering just over 23% of the Welsh countryside. To the west of the development area the soils are categorised as *Slowly permeable seasonally wet acid loamy and clayey soils* on the LandIS soil map (Cranfield Soil and Agrifood Institute, 2021). Soils of this type are of low fertility with impeded drainage and characteristic of seasonally wet pastures and woodlands covering just over 15% of the Welsh countryside (Cranfield Soil and Agrifood Institute, 2022).



Figure 1: Location of the development area at Felinfach, Bronwydd, Carmarthenshire.

2. Objective of the Written Scheme of Investigation

2.1 The objective of this written scheme of investigation (WSI) is to specify the method to be used for a geophysical survey in order to further investigate the archaeological potential.

3. The development

3.1 The development at SN4220725479 will consist of the construction of a horse ménage covering 1600 square metres and associated drainage.

4. Planning Application

4.1 A planning application was submitted to the Carmarthenshire County Council in 2021, planning application PL/03277.

4.2 On 6th January 2022, Dyfed Archaeological Trust Heritage Management section recommended that a geophysical survey be undertaken in advance of determination of the planning application (Dyfed Archaeological Trust, 2022).

4.3 Trysor have prepared this WSI for a geophysical survey to be undertaken by Ian Brooks of Engineering Archaeological Services

5. Archaeological & Historical resource

5.1 In the letter from Dyfed Archaeological Trust Heritage Management section stated that

The application is for construction of a new menage. This is located on the west-facing slope below an Iron Age defended enclosure (PRN 10,733) Recent surveys in west Wales have demonstrated the preservation of significant archaeology in the vicinity of such monuments. Such features could be damaged or destroyed by intrusive ground works and/or compaction.

We recommend that the potential for direct impact on archaeological deposits should be assessed through pre-determination evaluation. This work would most appropriately take the form of a geophysics survey, with the results used to inform the possible requirement for further mitigation measures.
(Dyfed Archaeological Trust, 2022)

6. Scope of Mitigation

6.1 It is proposed that a geophysical survey is carried out over the development site. The results of the geophysical survey will help to inform as to whether further archaeological mitigation is necessary.

6.2 The geophysical survey will be carried out in accordance with the Chartered Institute for Archaeologist's Standard and Guidance for Archaeological Geophysical Survey (CIfA, 2020a). A program of field work is proposed for this area that will include:

- A fluxgate gradiometer survey of the proposed development site

- Archive preparation
- Report preparation

6.3 Further mitigation may be required once the results of the geophysical survey have been interpreted. A separate WSI will be written for this.

7. Methodology

7.1 A Fluxgate Gradiometer Survey will be undertaken.

- The survey areas will be gridded with a 20 x 20 m grid, see Figure 2. These squares will be marked by plastic pegs. It is proposed that four 20 x 20 metres squares are covered.
- The grid will be tied to local features
- Geoscan FM 256 Fluxgate Gradiometer will be used for the survey
- Readings will be taken at 0.125 m intervals along transects 1.0 m apart with a zig-zag pattern being walked
- The data will be downloaded on to a laptop computer in the field
- The data will be analysed using Geoplot v. 4.00v
- Grey scale plots will be produced using Geoplot v. 4.00v
- X - Y plots will be produced using Golden software “Surfer” v. 10
- If possible, a limited number of small soil samples will be taken for magnetic susceptibility analysis as an aid to interpret the results of the Fluxgate gradiometer survey.

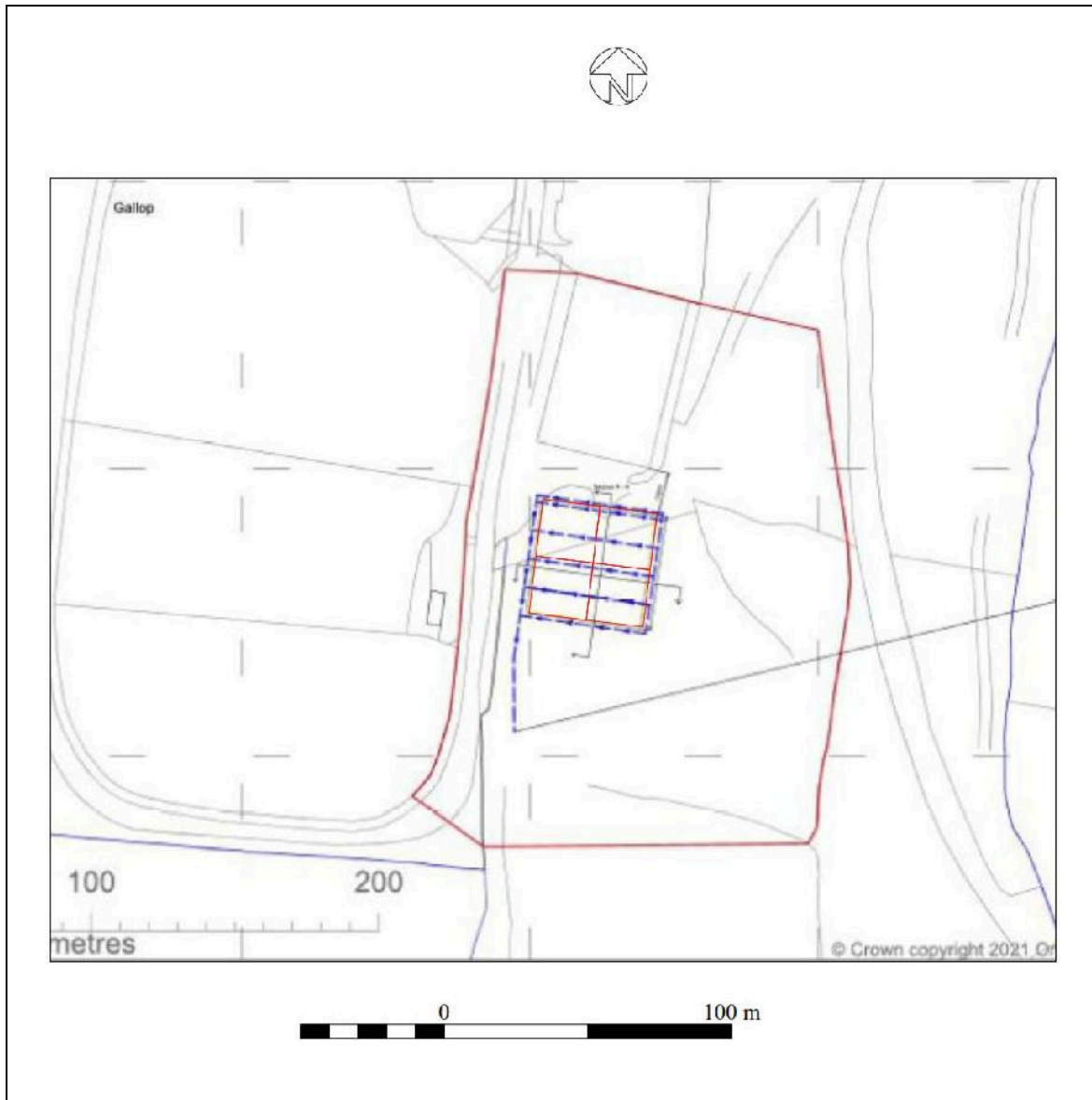


Figure 2: The proposed 20 metres grid layout, this may be revised on site to suit the ground conditions. It is likely that the area to the north of the hedged boundary has been disturbed previously based on the evidence of aerial photographs.

8. Health & Safety

8.1 Engineering Archaeological Services and Trysor will undertake a risk assessment in accordance with their health and safety policies.

9. Reporting

9.1 On completion of the survey a report shall be produced which will contain:

- The results of the geophysical survey
- A general location plan of the development
- A location plan of the development area identifying the location of the geophysical survey.
- A detailed description of the anomalies recorded, their possible interpretation character, function, date and relationship to other features.
- Recommendations for further work if appropriate.
- A bibliography.

9.2 The report will be sent to the client within one month of the completion of the field work.

9.3 An initial assessment of the geophysical survey will be made available within one working day of the fieldwork.

9.4 Copies of the report will be provided to the client, the Regional Historic Environment Record and the National Monuments Record.

9.5 If further archaeological mitigation is required, a new WSI will be prepared.

10. Public Benefit and Outreach

10.1 A summary of the work undertaken, and its findings, will be submitted to *Archaeology in Wales*, the annual review of archaeological work in Wales collated the Council for British Archaeology Wales (CBA Wales). If appropriate, a full report on findings will be submitted for publication with an appropriate regional or national archaeological journal within one year of the completion of the fieldwork element of the project.

10.2 The results of the work will be deposited in the NMR and regional HER making it publicly accessible to all, in line with current guidance, (NPAAW, 2017, RCAHMW, 2015 and WAT, 2018).

10.3 The purpose of the work and the history of the site will be discussed with the client and others on site, in order to widen understanding of why the work is important and broaden appreciation for the historic environment.

11. Archive

11.1 The archive will be deposited with the National Monuments Record, including a copy of the final report in accordance with the CIfA's *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA, 2020b). This archive will include all written, drawn and photographic records relating directly to the investigations undertaken. Digital archives will follow the standard required by the RCAHMW (RCAHMW, 2015).

12. Resources to be used

12.1 The geophysical survey will be carried out by Ian Brooks, PhD, BA, MCIfA, FSA, Engineering Archaeological Services, Unit 2 Glanypwll Workshops, Ffordd Tanygrisiau, Blaenau Ffestiniog, Gwynedd, LL41 3NW. Trysor are providing project management and will write any further WSI. Trysor are a Registered Organisation with the Chartered Institute of Archaeologists.

13. Qualification of personnel

13.1 Trysor is a Registered Organisation with the Chartered Institute for Archaeologists and both partners are Members of the Chartered Institute for Archaeologists, www.archaeologists.net

13.2 Dr Ian Brooks (PhD, BA, MCIfA, FSA) is director of Engineering Archaeological Services and has undertaken many geophysical surveys. He is also expert on lithics and has processed flint assemblages of any size from a single artefact to many thousands of artefacts can be analysis.

13.3 Jenny Hall (BSc Joint Hons., Geology and Archaeology, MCIfA) had 12 years excavation experience, which included undertaking watching briefs prior to becoming the Sites and Monuments Record Manager for a Welsh Archaeological Trust for 10 years. Since 2004 she has been a partner in Trysor undertaking a variety of work that includes upland survey, desktop assessments and watching briefs.

13.4 Paul Sambrook (BA Joint Hons., Archaeology and Welsh, MCIfA, PGCE) has extensive experience as a fieldworker in Wales. He was involved with Cadw's pan-Wales Deserted Rural Settlements Project for 7 years. He also undertook Tir Gofal field survey work and watching briefs. Since 2004 he has been a partner in Trysor undertaking a variety of work that includes upland survey, desktop assessments and watching briefs.

14. Insurance & Professional indemnity

14.1 Trysor and Engineering Archaeological Services have Public Liability, Employers Liability and Professional Indemnity Insurance.

15. Project identification

15.1 The project has been designated Trysor Project No. 2022/823. The DAT HER Event Record PRN is 126549.

16. Monitoring

16.1 The planning archaeologists at Dyfed Archaeological Trust will be welcome to visit the site and monitor the work. They will be informed as to when work will start on site and contact details given.

17. Sources

17.1 Historic Maps

Ordnance Survey, 1888, 1:10560, 1st edition, Pembrokeshire XXXI.7

Ordnance Survey, 1906, 1:2500, 2nd edition, Pembrokeshire XXXI.7

Parish tithe map, 1839, Llanpumsaint

Parish tithe apportionment, 1838, Llanpumsaint

17.2 Non-published

Dyfed Archaeological Trust, 2022, Letter dated 6th January 2022 *re: Planning application PL/03277. Felinfach, Bronwydd, Carmarthen. NGR SN42195 25749.*

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

RCAHMW, 2015, *RCAHMW guidelines for Digital Archives*, Version 1

WAT, 2018, *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)*

17.3 Published

CIfA, 2020a, *Standard and Guidance for geophysical survey*

CIfA, 2020b, *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*

17.4 Web based materials

British Geological Survey - <http://mapapps.bgs.ac.uk/geologyofbritain/home.html?>
(accessed 01/02/2022)

Historic Wales, <http://historicwales.gov.uk/> (accessed 01/02/2022)

UK Soils Observatory, <http://www.landis.org.uk/soilscapes/> (accessed 01/02/2022)

Jenny Hall & Paul Sambrook
Trysor, February 2022

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