

**Results of Archaeological Works at
Fferam Uchaf, Llansadwrn
(Strip, Map and Record)**

NGR SH 55454 76515



Project Number CR176-2019



CR ARCHAEOLOGY

Compiled by C. Rees & Matthew Jones
On Behalf of Mr Arwyn Jones

Results of Archaeological Works at Fferam Uchaf, Llansadwrn

Planning Reference Number:	17C181C
National Grid Reference:	SH 55454 76515
Client:	Mr Arwyn Jones
Report Authors:	Catherine Rees & Matthew Jones
Report Number:	CR176-2019
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Appendix A. Specification for Archaeological Works

1.0 Introduction

CR Archaeology were instructed by Mr A. Jones to conduct archaeological works at the above site in compliance with planning conditions placed on the development (Planning Reference: 17C181C).

A specification was written and agreed with Gwynedd Archaeological Planning Services as a methodology for a programme of Archaeological Strip, Map and Record of the application area. This document is included as Appendix A.

The development site is situated in a rural setting on the western outskirts of the village of Llansadwrn (Figure 1). Planning permission has been granted for the erection of silage clamp and cattle shed.

There are known archaeological sites within the vicinity of the site including Hendrefor burial chambers (Scheduled Monument AN025), the site of a burial chamber near Trefor, a further possible burial chamber and a series of standing stones (including scheduled monument AN074) between Cremlyn and Hafotty. Also recorded in the Historic Environment Record are several burnt mounds, numerous artefact findspots (primarily stone axes), a Later prehistoric/Romano-British settlement at Bryn Eryr (Scheduled Monument AN100), the Hendrefor enclosure (Scheduled Monument AN075), and a complex of defended enclosed settlements and fields.

A single linear feature was uncovered during the site works. It was identified as a field boundary shown on the 1900 Second Edition Ordnance Survey map of the area and had been removed by the publication of the 1949 Edition.

2.0 Project Aims

The scheme of works aimed to strip the proposed development area to the level of archaeological horizon/the underlying natural under archaeological direction. It aimed to assess the survival, character and date of any archaeological remains and to excavate/record all archaeological remains uncovered.

It aimed to fulfil the mitigation criteria for undertaking an Archaeological Field Evaluation/Excavation as specified in the CIfA Standard and Guidance documents (2014).

3.0 Scheme of Works – Methodology

The methodologies employed conformed to The Chartered Institute for Archaeologists: *Standard and Guidance for Archaeological Field Evaluation* and *Standard and Guidance for Archaeological Field Excavation*.

3.1 Desk Based Research

A history of the site was compiled utilising information sourced from local archives and the Gwynedd Historic Environment Record Office. A map progression will be undertaken along with a search of tithe records.

The Gwynedd Historic Environment Record was consulted and a search radius of 500m examined.

Works were carried out in accordance with the CIfA Standards and Guidance for Historic Environment Desk Based Assessment (CIfA 2014).

This material forms the historical background for the archaeological report. The report includes the results of the Archaeological Strip, Map and Record.

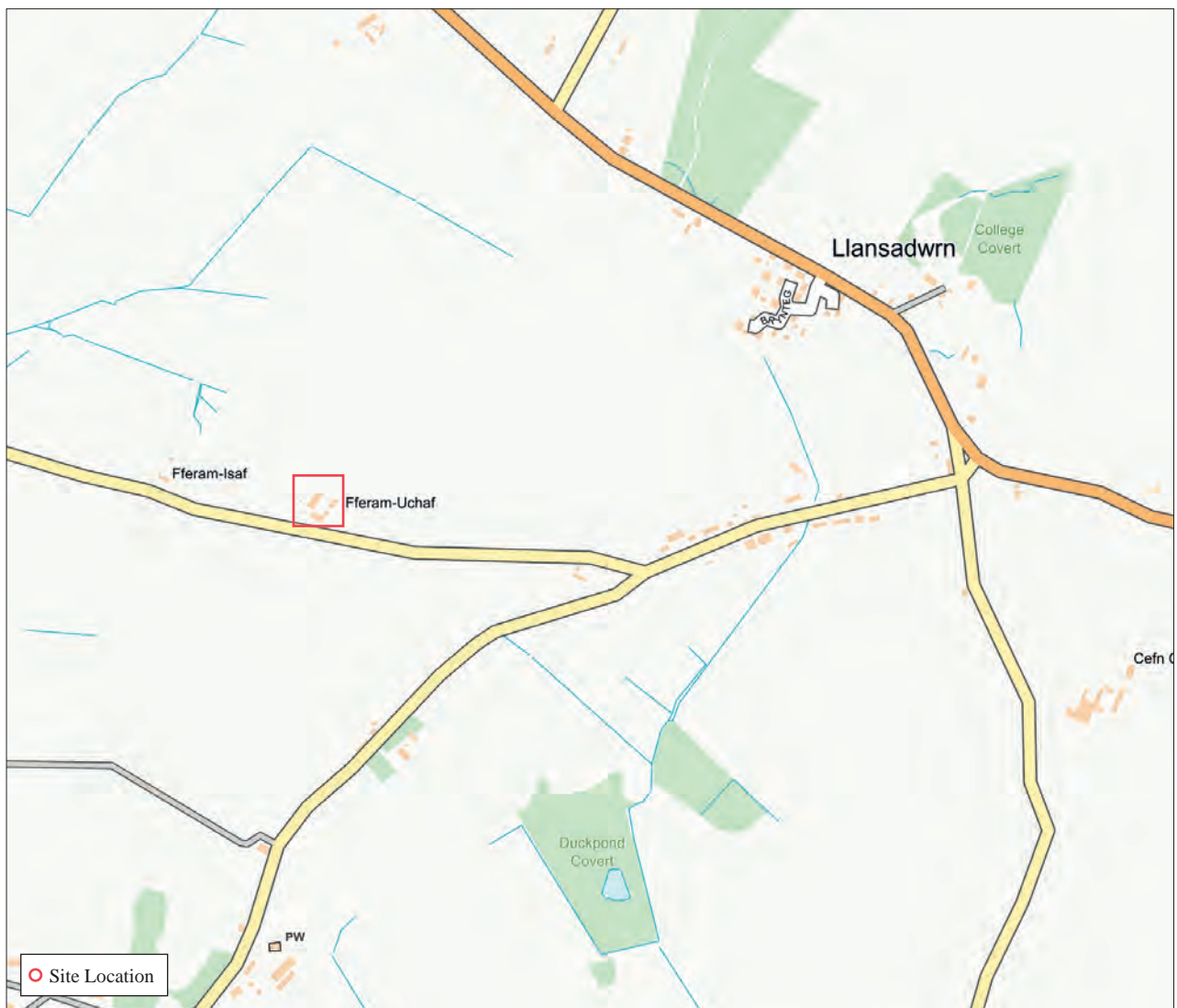
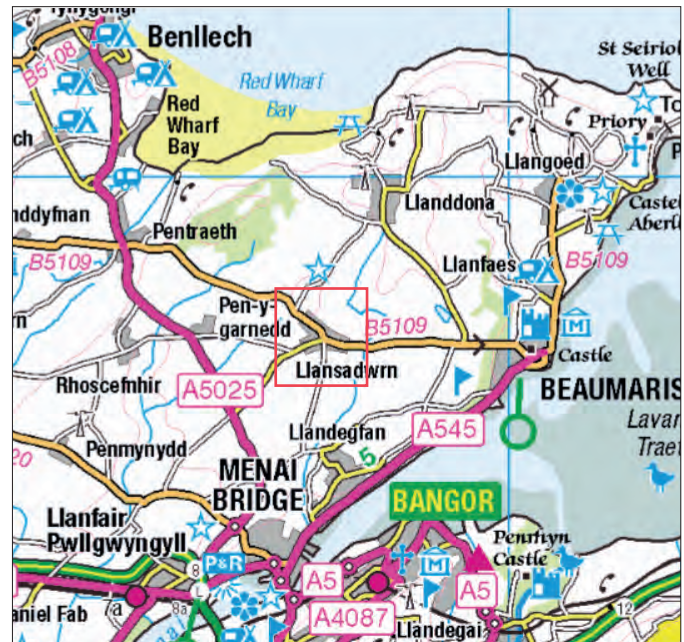
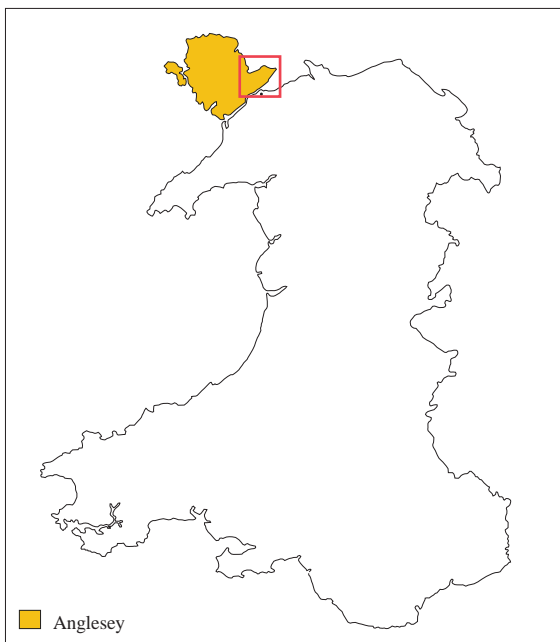


Figure 1. Site Location Map

(Source: OS Open Data Mapping. Contains Ordnance Survey data © Crown copyright and database right [2019])

3.2 Archaeological Strip, Map & Record

A CR Archaeology staff member directed the machine stripping of the proposed development area down to the level of archaeological horizon and/or the underlying natural at the site and excavated/recorded all archaeological remains uncovered.

This work was undertaken using a mechanical excavator fitted with a toothless ditching bucket. When archaeological remains were encountered, machine excavation ceased until it is clear in plan that the full extent of the feature had been uncovered within the development area.

CR Archaeology notified Gwynedd Archaeological Planning Services as to the date of the commencement of works. Due to the negative results of the works a site visit was not necessary.

All archaeological remains/potential archaeological remains identified during the works were marked using spray paint and trowel cleaned by hand. Investigation of such features, structures or deposits was sufficient to determine their character, date, significance and quality.

Fieldwork was conducted and managed by Matthew Jones of CR Archaeology.

3.2.1 Recording

The record forms at CR Archaeology are based on the English Heritage system and full written, graphic and photographic records were made in accordance with the English Heritage *Field Recording Manual*. The written record comprises completed *pro-forma* record sheets.

Plans, sections and elevations were produced on gridded, archive standard stable polyester film at scales of 1:10, 1:20 or 1:50, as appropriate. All drawings were numbered and listed in a drawing register; these drawing numbers being cross-referenced to written site records.

A high-resolution 14.2mp (minimum) Sony Alpha digital camera was used to create a photographic record of the site. This was comprised of photographs of archaeological features. General photographs of the site were also taken to record the site following stripping.

All photographic records were indexed and cross-referenced with written site records. Details concerning subject and direction of view were maintained in a photographic register, indexed by frame number. Images from photography will be stored in a loss-less digital format in this case *.TIF.

3.2.2 Additional Mitigation/Contingency Measures

No additional mitigation/contingency measures were necessary.

3.2.3 Recovery, Processing and Curation of Artefactual Material

No artefactual material was recovered during the works.

3.2.4 Archive Compilation

All records created during the fieldwork will be checked for consistency and accuracy and will form part of the *Primary Site Archive (P1)* (EH 2006). The archive will contain all data collected, including records and other specialist materials. It will be ordered, indexed, adequately documented, internally consistent, secure, quantified, conforming to standards required by the archive repository and signposted appropriately to ensure future use in research, as detailed in the English Heritage *Management of Research Projects in the Historic Environment* (MoRPHE) methodology.

The archive will be assembled in accordance with the guidelines published in, *Standards in the museum care of archaeological collections* (Museums & Galleries Commission 1994), *Guidelines for the preparation of excavation archives for long-term storage* (United Kingdom Institute for Conservation, 1990) and *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (AAF 2007).

As no artefactual material was recovered then the paper/digital archive will be deposited at the RCAHMW. Archive material will be deposited in accordance with the terms and conditions for archive deposition.

3.3 Timetable for Proposed Works

Groundworks commenced on 29th May 2019 and took 2 days. Additional time was allotted as necessary for archive research, report compilation and site archiving. Gwynedd Archaeological Planning Services were informed of the exact site days to allow monitoring of works.

3.4 Staffing

The project was managed by Matthew Jones (BA (Archaeology), MA (Archaeology)). All projects are carried out in accordance with CIfA *Standard and Guidance* documents.

3.5 Monitoring

The project was subject to monitoring by Gwynedd Archaeological Planning Services. The monitor was given prior notice of the commencement of the fieldwork.

They were notified in writing (via email) of the commencement dates for archaeological site work and were updated with the results of all works conducted as watching brief elements.

3.6 Health and Safety

A risk assessment was conducted prior to the commencement of works and site staff were familiarised with its contents. A first aid kit was located in the site vehicle.

Staff were issued with appropriate Personal Protective Equipment (PPE) for the site work. This consisted of:

- Safety Helmets (EN397)
- Hi-visibility vests (EN471)
- Safety footwear – steel toecap and mid-sole boots and Wellingtons (EN345-47)

All staff carry a CSCS card.

CR Archaeology staff are not the principle contractor on site and also complied with Health and Safety Policy or specific on-site instructions provided by the client or their appointed Principal contractor or H&S coordinator.

3.7 The Report

The report clearly and accurately incorporates information gained from the programme of archaeological works. It presents the documentary evidence gathered in such a way as to create a clear and coherent record. The report contains a site plan showing the locations of photographs taken.

The report includes:

- bilingual summary
- a copy of the design brief and agreed specification
- a location plan
- all identified features and significant finds plotted on an appropriately scaled site plan
- full dimensional and descriptive detail of all identified finds and features
- a full bibliography of sources consulted
- a digital copy of the report and an archive compact disc/USB file

Copies of the reports in Adobe PDF format will be sent to the appropriate monitoring archaeologist for approval before formal submission. A bound paper copy and PDF digital copy of the report will be submitted as part of the formal submission. A digital Adobe PDF version and a bound paper copy of the final report and will be lodged with the Gwynedd Historic Environment Record within six months of completion of fieldwork. The new (2018) Guidance for the Submission of the Data to the Welsh Historic Environment Records document will be followed.

3.7.1 Copyright

CR Archaeology and sub-contractors shall retain full copyright of any commissioned reports, tender documents or other project documents, under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it hereby provides a licence to the client and the local authority for the use of the report by the client and the local authority in all matters directly relating to the project as described in the Project Specification.

4.0 Topological and Geological Background

4.1 Topography

The development site is situated in a rural setting on the western outskirts of the village of Llansadwrn.

4.2 Geology

The bedrock is recorded as *“Gwna Group - Schist. Metamorphic Bedrock formed approximately 508 to 635 million years ago in the Cambrian and Ediacaran Periods. Originally sedimentary rocks formed in deep seas by chaotic deposition from underwater gravity slide. Later altered by low-grade metamorphism. Originally sedimentary rocks formed in deep seas by chaotic deposition from underwater gravity slide. These rocks were sedimentary in origin, possibly chaotic flows of debris in a deep-marine environment, but have subsequently undergone metamorphism”* (www.mapapps.bgs.ac.uk/geologyofbritain/home.html).

The superficial geology is recorded as *“Till, Devensian - Diamicton. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions (U). These sedimentary deposits are glacial in origin. They are detrital, created by the action of ice and meltwater, they can form a wide range of deposits and geomorphologies associated with glacial and inter-glacial periods during the Quaternary”* (www.mapapps.bgs.ac.uk/geologyofbritain/home.html).

5.0 Historical Background

In order to identify the character of archaeological remains in the vicinity of the trackway a search of the Gwynedd HER was conducted examining a 500m search radius of the site. This returned 6 entries, with 3 of the 6 records related to the parish church and associated monuments. The following section is derived from information held by the GAT HER Charitable Trust Database Right.

Within the wider locality there are a number of known archaeological sites of national significance including Hendrefor burial chambers (Scheduled Monument AN025) and a series of standing stones (including scheduled monument AN074) between Cremlyn and Hafotty. Also recorded in the Historic Environment Record are several burnt mounds, numerous artefact findspots (primarily stone axes), a Later prehistoric/Romano-British settlement at Bryn Eryr (Scheduled Monument AN100), the Hendrefor enclosure (Scheduled Monument AN075), and a complex of defended enclosed settlements and fields.

Llansadwrn Parish Church and Associated Monuments

The Llansadwrn parish church (PRN's 7035 and 5523) is dedicated to St. Sadwrn and is located in the diocese of Bangor. The current church was rebuilt on the original medieval foundations in 1881 and was designed by architect Henry Kennedy. It consists of a continuous nave and chancel with a north chapel and porch.

The almost circular cemetery is bounded by a raised dry-stone wall with an entrance to the west of the church. An C18th beam has been reused in the modern lych gate.

The present church was rebuilt on the foundations of a Medieval predecessor to designs of H Kennedy, architect of Bangor, in 1881. The nave and chancel probably represent the extent of the original church; the earlier church was described by H Jones in 1847 as having a chapel, which may be the N chapel of the present church, which is of uncertain date. The N porch is a later addition. In 1896 the chancel was either still being built, or was re-roofed and refitted from designs by Demaine and Brierley of York.

The structure is a Grade II* Listed Building (Cadw ID 5548). It is Listed as a fine example of a late 19th century rural church with a well-detailed interior including many fine 18th and early 19th century memorials and a reset 6th century inscribed stone. The chancel has an exceptionally fine late C19 roof and reredos of a unique type on Anglesey (www.cadwpublic-api.azurewebsites.net/reports/listedbuilding/FullReport?lang=en&id=5548).

The aforementioned Early Medieval stone has been assigned PRN 2644. The stone is a rough slab with Latin inscription in Roman capitals “*HIC BEA(TV)S () / SATVRNINVS SE(PVLTVS (?) ACIT.ET SVA SA (NCTA (?)) / CONIV (n) X. PA (X VOBIS/CVM SIT (?)*” which approximately translates as “*Here lies buried blessed...Saturninus and his saintly wife. Peace be with you (both)*”. The stone has been dated to 530 AD.

The stone was discovered in the churchyard before 1742 in Llansadwrn whilst digging a grave. It was later built into the north wall of the chancel inside the church. A plaque by the stone claims that it is the oldest memorial stone in Wales and gives its date as circa AD520.

Also associated with the church is the Grade II Listed (Cadw ID 81134) commemorative cross at Church of St Sadwrn. The front of the plinth bears an inscription which reads: “This cross was erected by the people of this parish in memory of Hugh Stewart McCorquodale, Lieutenant Thorneycrofts Mounted Infantry, youngest son of George McCorquodale of Gadlys, who at the call of duty volunteered for active service in South Africa and fell gallantly fighting on Spion Kop, Natal, on 24 January 1900 and was buried on the field of battle”.

The monument is a highly ornate Celtic revival memorial cross with slightly tapering shaft on smooth raking plinth. The front face bears Celtic swirls with a naturalistic floriate detailing, inscription at the base of the shaft with commemorative details. The rear face bears humanistic figures of Christ in relief, the bottommost panel shows the Madonna and Child, above which is a depiction of the Crucifixion surmounted by Christ in majesty; the base of the shaft bears a much-weathered inscription (www.cadwpublicapi.azurewebsites.net/reports/listedbuilding/FullReport?lang=en&id=81134).

There are two further sites within the 500m search radius, both of Post Medieval date. PRN 56065 is a duckpond identified using early Ordnance Survey mapping.

The second site is “*The College*” (PRN 6476). This site is a Grade II Listed Building II (Cadw ID 5549). “*The name of the building is said to derive from its one-time owners, Jesus College Oxford. It appears to have been built in two separate phases (corresponding to the two ranges), and to have taken the form originally of a series of 8 single units, 4 in each range. Each of these units may originally have been separately occupied - they are all approximately the same size, and each has a fireplace - though there is little visible evidence externally to indicate separate access. If this was so, it suggests a series of tiny cottages such as might have been dwellings for the poor. The present owners report that until recently, traces of subdivision in the 2.5 acre(1.01 hectare) plot accompanying the building, survived. This, together with the highly unusual layout and plan of the building lend some support to this interpretation. More recently, the row formed two separate dwellings (until c1970), and incorporated a small inn and perhaps a stable, at one end. Structural evidence suggests a date no earlier than the later C18 for the earliest range (at right-angles to the road), with the right-angled range parallel to the road slightly later - perhaps early C19.*

Cottage, formerly several dwellings, in two right-angled ranges enclosing a cobbled yard at the rear. Single storeyed. Modern roughcast over stone with Efestiniog slate roof (replacing old grouted slate roof). Earliest range aligned SW-NE has one axial and two gable end squat stacks. It comprises 4 single units, each with a single window beneath the eaves; doorways in first and third units from left. All openings are modern - the casement windows replacing earlier sashes. In the rear elevation, one 8-pane fixed light window survives. Range parallel to the street has 2 squat axial stacks, and modern windows (mainly small but one in an enlarged opening). Modern windows in rear elevation (possibly in earlier openings), and two doorways (perhaps the evidence for an earlier orientation away from the road, and for independent access to individual units?). Flat roofed extension (added c1970).

Listed notwithstanding alterations to exterior as an unusual cottage development, apparently originally comprising a series of 8 separate units, and retaining the evidence of this layout, together with some original structural detail, internally” (www.cadwpublicapi.azurewebsites.net/reports/listedbuilding/FullReport?lang=en&id=554).

Cartographic Sources

The development area appears within a much larger open field system in the 1841 Tithe Map of the area, and none of the current field system subdividing the area immediately surrounding the farm is shown. It is recorded as being the “other part” of Tercwm Ucaf and is owned by the Bishop of Bangor.

The farm is named as Fferam-ucaf on the First Edition Ordnance Survey map of 1888 (figure 2), which shows the current field system in place by this date.

Figure 3 shows that a subdivision has been added within the development area between 1888 and 1901 – and that this has been removed by the following map edition of 1926 (figure 4). This field boundary was identified during the stripping of the site. Figure 5 shows no further changes were made to the area between 1926 and 1949.

6.0 Results of Archaeological Works (Figure 6, Plates 1-5)

The development plan at the site is for the erection of two new structures – a silage clamp and a large shed. The silage clamp is to be built on an area of existing hard standing and there were no below ground works associated with this element of the project. The shed is to be erected within ground to the east of the farmstead. This land is under cultivation but had not been deep ploughed. The entire footprint of the structure was stripped to the level of the underlying natural. Short access routes into the field were built up with gravel and the underlying deposits unaffected.

In order that the full development footprint was monitored, an area measuring approximately 80m x 35m was stripped down to the underlying natural (see figure 6, plates 1 - 5).

Two deposits were identified during the works. As the crop in the field had recently been harvested there was no defined top/subsoil and context (01) was a mixed plough soil deposit. This deposit varied in depth between 0.15m and 0.70m. It overlay the natural (02) which was a mixed yellow-orange-brown boulder clay.

A single archaeological feature was identified – a linear field boundary ditch [03] which ran across the full width of the stripped area (approximately 30m). It was 1.30m in width and had a depth of 0.34m. The fill (04) was a mid-brown clay silt of loose compaction, which continued occasional rounded stone inclusions. No artefactual material was recovered from the two excavated sections of this feature. It is possible to closely date the origin of this this feature through the Ordnance Survey mapping of the area and it was created between 1888 and 1901 and had ceased to be in use by 1926.

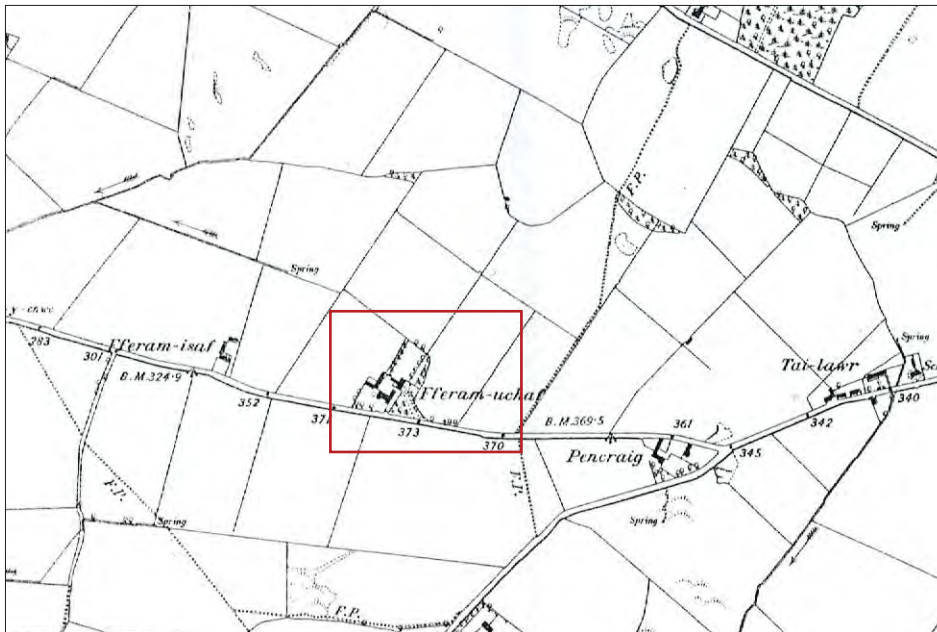


Figure 2. 1888 Ordnance Survey Map of Area
(Source: Bangor University Archives)

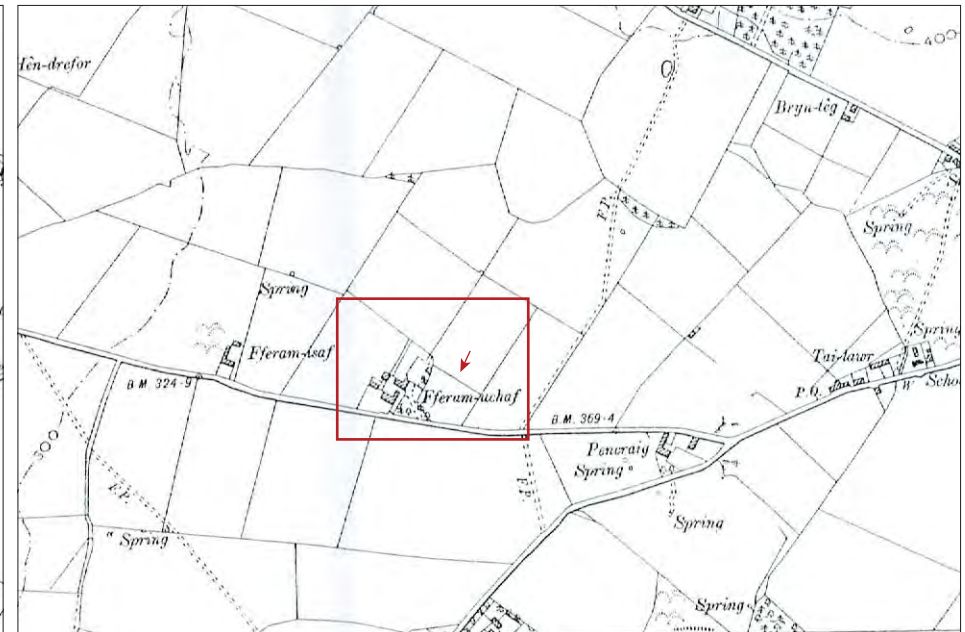


Figure 3. 1901 Ordnance Survey Map of Area
(Source: Bangor University Archives)



Figure 4. 1926 Ordnance Survey Map of Area
(Source: Bangor University Archives)

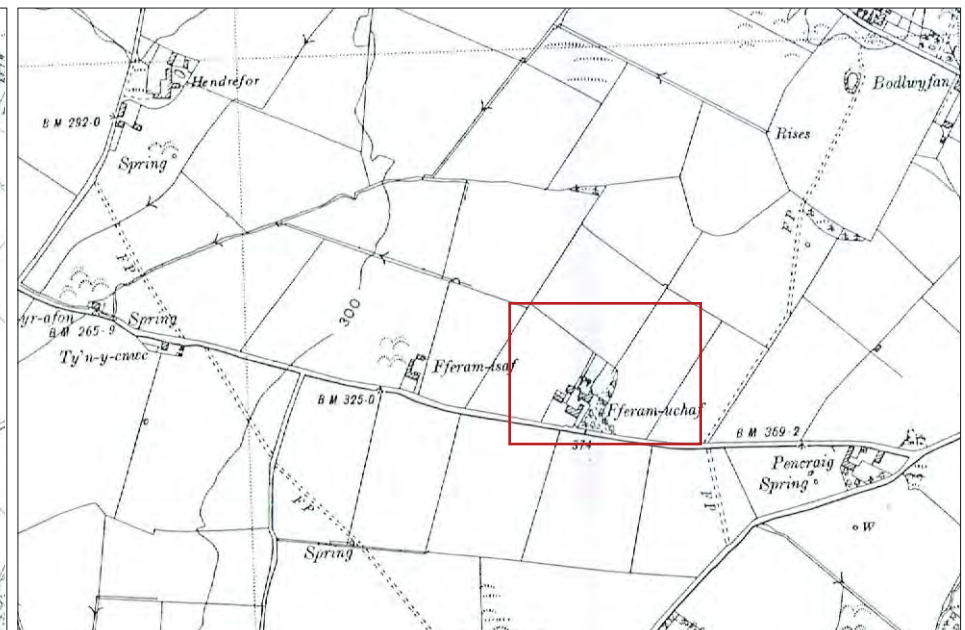


Figure 5. 1949 Ordnance Survey Map of Area
(Source: Bangor University Archives)

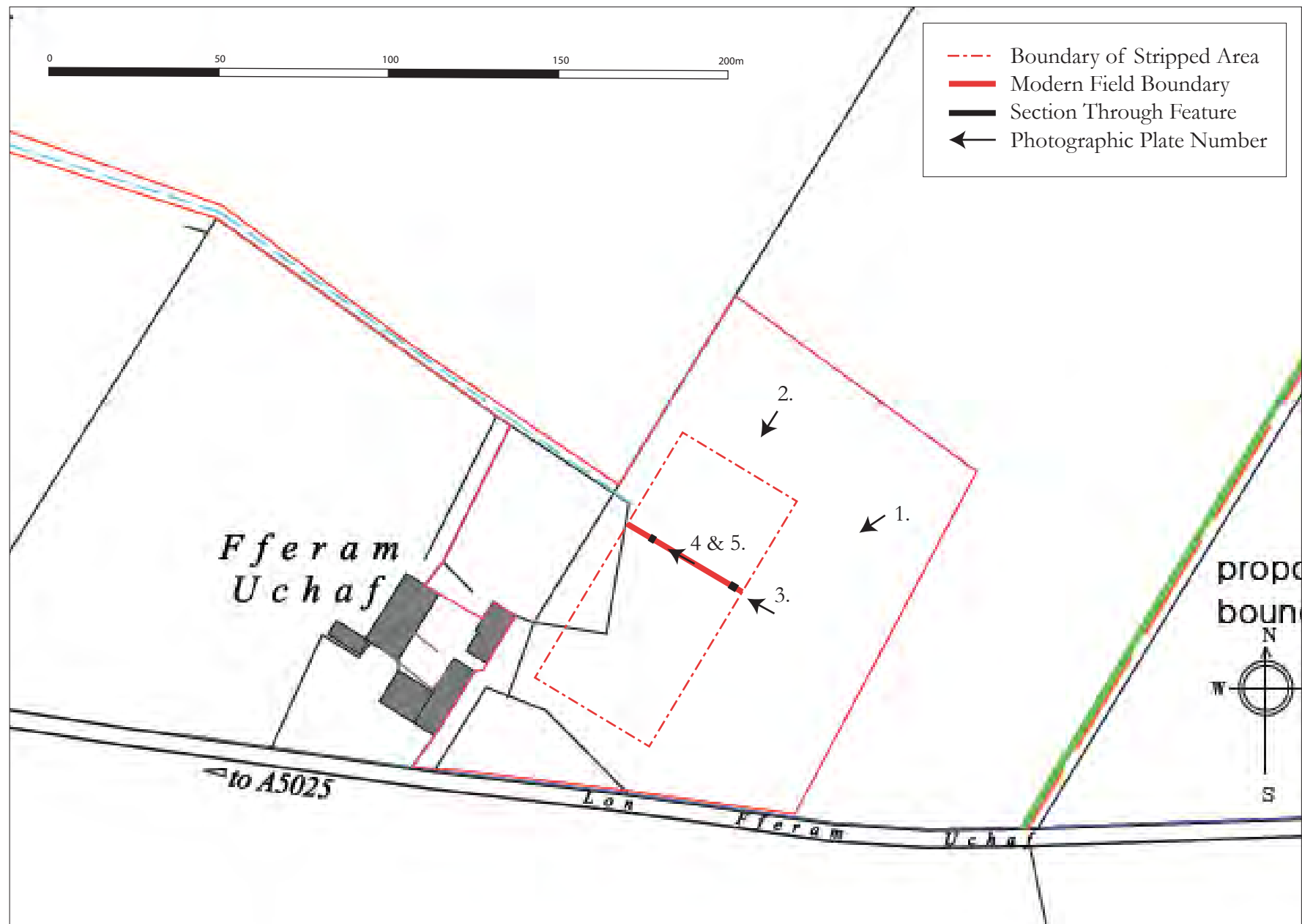


Figure 6. Stripped Area Showing Post Medieval Boundary Ditch & Location and Direction of Photographic Plates



Plate 1. Area Prior to Commencement of Works



Plate 2. Stripped Area



Plates 3 & 4. Post Medieval Field Boundary [03]



Plates 5. Post Medieval Field Boundary [03]

7.0 Conclusion

An area measuring 80m x 35m covering the entire footprint of the proposed shed was stripped to the underlying natural during the works. A single linear feature was uncovered which was identified as a field boundary which is first shown on the 1901 Second Edition Ordnance Survey map of the area, and which had been removed by the publication of the 1926 Edition.

8.0 Bibliography

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www.cadwpublicapi.azurewebsites.net/reports/listedbuilding/FullReport?lang=en&id= 81134

Appendix A.

Specification for Archaeological Works

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Illustrations

Figure 1. Site Location Map

Appendices

Appendix A. Proposed Works

1.0 Introduction

CR Archaeology have been instructed by Mr A. Jones to conduct archaeological works at the above site in compliance with planning conditions placed on the development (Planning Reference: 17C181C).

This specification has been written with reference to document 0912je01/D3263 prepared by Development Control Archaeologist Jenny Emmett of Gwynedd Archaeological Planning as a methodology for a programme of Archaeological Strip, Map and Record of the application area.

The development site is situated in a rural setting on the western outskirts of the village of Llansadwrn (Figure 1). Planning permission has been granted for the erection of silage clamp and cattle shed (Appendix A).

There are known archaeological sites within the vicinity of the site including Hendrefor burial chambers (Scheduled Monument AN025), the site of a burial chamber near Trefor, a further possible burial chamber and a series of standing stones (including scheduled monument AN074) between Cremlyn and Hafotty. Also recorded in the Historic Environment Record are several burnt mounds, numerous artefact findspots (primarily stone axes), a Later prehistoric/Romano-British settlement at Bryn Eryr (Scheduled Monument AN100), the Hendrefor enclosure (Scheduled Monument AN075), and a complex of defended enclosed settlements and fields.

This document details the methodology for a programme of Archaeological Strip, Map and Record of the application area which is to be conducted at the site.

2.0 Project Aims

This scheme of works aims to strip the proposed development area down to the level of archaeological horizon and the underlying natural under archaeological direction at the site in order to assess the survival, character and date of any archaeological remains and to excavate/record all archaeological remains uncovered.

It aims to fulfil the mitigation criteria for undertaking an Archaeological Field Evaluation/Excavation as specified in the CIfA Standard and Guidance documents (2014).

3.0 Historical Background

The following section is, through necessity, brief and is intended to merely place the site in context. A more detailed history of the site will form an element in the proposed works and will concentrate more specifically on the site itself.

There are known archaeological sites within the vicinity of the site including Hendrefor burial chambers (Scheduled Monument AN025), the site of a burial chamber near Trefor, a further possible burial chamber and a series of standing stones (including scheduled monument AN074) between Cremlyn and Hafotty. Also recorded in the Historic Environment Record are several burnt mounds, numerous artefact findspots (primarily stone axes), a Later prehistoric/Romano-British settlement at Bryn Eryr (Scheduled Monument AN100), the Hendrefor enclosure (Scheduled Monument AN075), and a complex of defended enclosed settlements and fields.

3.1 Topography

The development site is situated in a rural setting on the western outskirts of the village of Llansadwrn.

3.2 Geology

The bedrock is recorded as “*Gwna Group - Schist. Metamorphic Bedrock formed approximately 508 to 635 million years ago in the Cambrian and Ediacaran Periods. Originally sedimentary rocks formed in deep seas by chaotic deposition from underwater gravity slide. Later altered by low-grade metamorphism. Originally sedimentary rocks formed in deep seas by chaotic deposition from underwater gravity slide. These rocks were sedimentary in origin, possibly chaotic flows of debris*

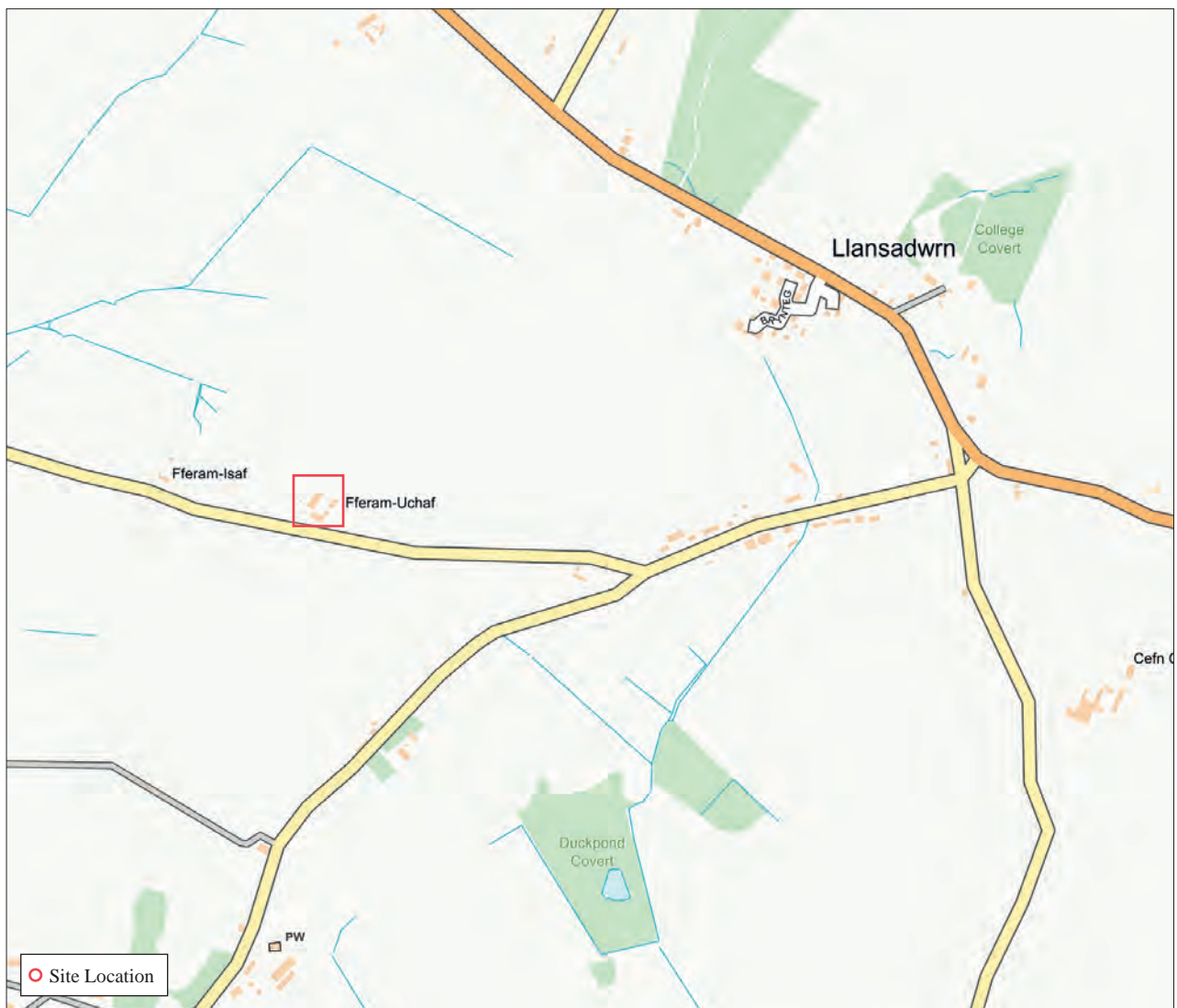
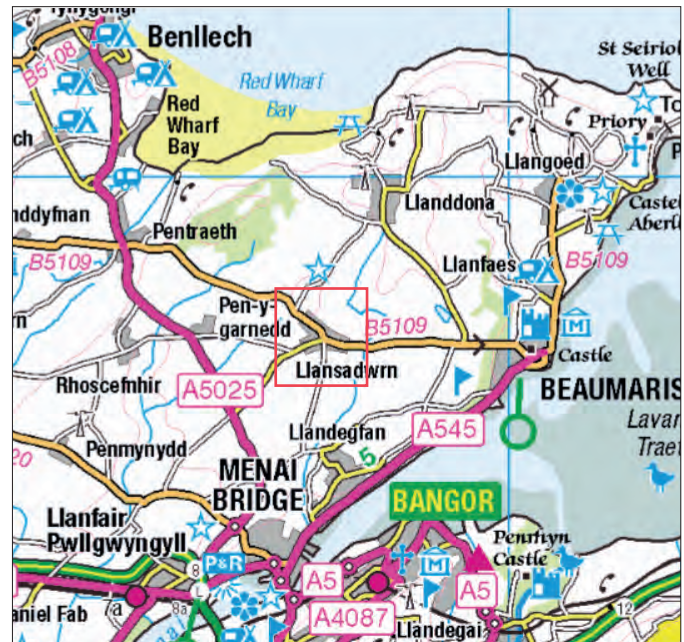
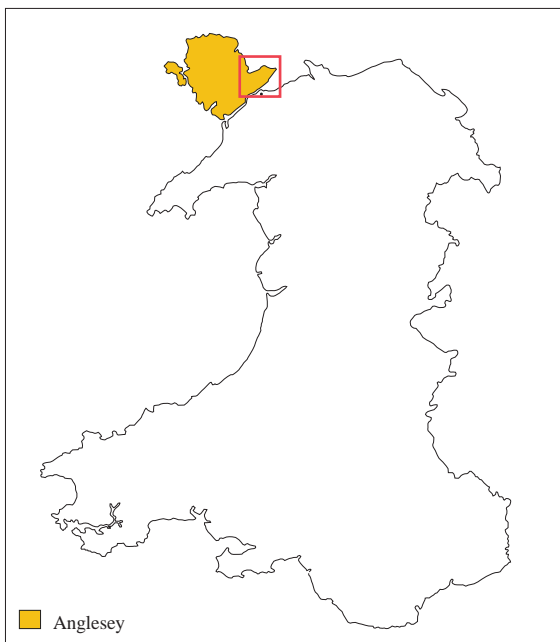


Figure 1. Site Location Map

(Source: OS Open Data Mapping. Contains Ordnance Survey data © Crown copyright and database right [2019])

in a deep-marine environment, but have subsequently undergone metamorphism” (www.mapapps.bgs.ac.uk/geologyofbritain/home.html).

The superficial geology is recorded as *“Till, Devensian - Diamicton. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions (U). These sedimentary deposits are glacial in origin. They are detrital, created by the action of ice and meltwater, they can form a wide range of deposits and geomorphologies associated with glacial and inter-glacial periods during the Quaternary”* (www.mapapps.bgs.ac.uk/geologyofbritain/home.html).

4.0 Scheme of Works – Methodology

The methodologies employed will conform to The Chartered Institute for Archaeologists: *Standard and Guidance for Archaeological Field Evaluation* and *Standard and Guidance for Archaeological Field Excavation* (should excavation be necessary).

4.1 Desk Based Research

A history of the site will be compiled utilising information sourced from local archives and the Gwynedd Historic Environment Record Office. A map progression will be undertaken along with a search of tithe records.

The Gwynedd Historic Environment Record will be consulted and a search radius of 500m will be examined. A further, less detailed search will be undertaken at 1000m to provide wider context for the results.

These works will be carried out in accordance with the CIFA Standards and Guidance for Historic Environment Desk Based Assessment (CIFA 2014).

This material will form the historical background for a full archaeological report. The report will include the results of the Archaeological Strip, Map and Record.

4.2 Archaeological Strip, Map & Record

A CR Archaeology staff member will direct the machine stripping of the proposed development area down to the level of archaeological horizon and/or the underlying natural at the site and will excavate/record any archaeological remains uncovered.

This work will be undertaken using a mechanical excavator fitted with a toothless ditching bucket. If archaeological remains are encountered, then machine excavation will cease at this level until it is clear in plan that the full extent of any features have been uncovered within the development area.

CR Archaeology will notify Gwynedd Archaeological Planning Services as to the date of the commencement of works and if any significant archaeological features are uncovered. A site visit will be arranged if necessary to allow for the inspection of works.

All archaeological remains/potential archaeological remains identified during the works will be marked using spray paint and cordoned off to allow excavation by CR Archaeology staff. Any archaeological features, structures or remains will be trowel cleaned by hand. Investigation of such features, structures or deposits will be sufficient to determine their character, date, significance and quality. This will be 10% of linear features, 100% medieval and earlier discrete features and 50% later discrete features. The % of areas of “spreads” will be discussed with GAPS prior to the commencement of excavation but is expected to be 10% and if found be Medieval or earlier then up to 100% will be excavated.

If features yield suitable material for dating/environmental processing, then samples will be taken for processing off site. The size of these samples will depend on the size of the feature but for smaller features a sample of up to 95% will be taken. For larger features a sample of up to 40 litres will be taken.

In the event of a significant discovery Gwynedd Archaeological Planning Services will be informed of the discovery and a mitigation strategy agreed before works will progress.

Fieldwork is to be conducted and managed by Matthew Jones of CR Archaeology. Additional staff can be brought in as required and all staff members will have experience equivalent to AIfA level and cv's can be provided on request.

There is potentially an issue with flooding if the entire stripped area remains open for the duration of the works. It has therefore been requested by the developer that should there be areas identified which contain no archaeological remains that they be allowed to begin to stone these areas prior to the completion of the stripping of the site.

4.2.1 Recording

The record forms at CR Archaeology are based on the English Heritage system and full written, graphic and photographic records will be made in accordance with the English Heritage *Field Recording Manual*. Sample forms can be provided on request. The written record shall comprise completed *pro-forma* record sheets.

Plans, sections and elevations will be produced on gridded, archive standard stable polyester film at scales of 1:10, 1:20 or 1:50, as appropriate. Representative measured sections will be prepared as appropriate showing the sequence and depths of deposits. All drawings will be numbered and listed in a drawing register, these drawing numbers being cross-referenced to written site records. A 'harris matrix' diagram will be created.

A high-resolution 14.2mp (minimum) Sony Alpha digital camera will be used to create a photographic record of the site. This will be comprised of photographs of archaeological features and appropriate groups of features and structures. Included in each photograph will be an appropriate scale and north arrow. General photographs will also be taken in the event of a negative result.

All photographic records will be indexed and cross-referenced to written site records. Details concerning subject and direction of view will be maintained in a photographic register, indexed by frame number. Images from photography will be stored in a loss-less digital format in this case '*.TIF'.

4.2.2 Additional Mitigation/Contingency Measures

In the event of a significant archaeological discovery being made during the excavation, CR Archaeology will immediately inform both the client and the development control archaeologist. Consultation will take place between CR Archaeology, Gwynedd Archaeological Planning Services and the client with regards to the most suitable course of action.

In the unlikely event that human remains are encountered site work will cease with immediate effect. The coroner, client and monitoring body will be informed immediately. The company will abide by the requirements of Section 25 of the Burial Act 1857. Any arrangements regarding the discovery of human remains will be at the discretion of HM Coroner whose instruction/permission will be sought. All human remains are to be preserved *in situ*, covered and protected. They will only be removed in exceptional circumstances and with the appropriate Ministry of Justice licence, environmental health regulations, Coroner's permission and, if appropriate, in compliance with the Disused Burial Grounds (Amendment) Act 1981 or other local Act, with adequate security provided in such cases.

Any artefacts recovered that fall within the scope of the Treasure Act 1996 will be reported to the landowner, GAPS and to HM Coroner.

Should substantial/significant remains be uncovered on the site, there will be the submission of an interim report followed by a Post Excavation Assessment before final reporting.

4.2.3 Recovery, Processing and Curation of Artefactual Material

All recovered artefactual material will be retained, cleaned, labelled and stored according to *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014) and *First Aid for Finds* (Watkinson & Neal 2001). The aim will be to create a stable, ordered, well-documented, accessible material archive forming a resource for current and future research (CIfA 2014).

All artefactual material will be bagged and labelled with the site code and context number prior to their removal from site. The archive reference number will be clearly marked on all finds.

Each assemblage will be examined according to typological or chronological criteria and conservation needs identified. An assessment report of all post-medieval material will be produced by Matthew Jones and further specialists will be appointed as required. A list of specialists will be prepared prior to the post-excavation phase of works.

Should substantial/significant remains be uncovered on the site, there will be the submission of an interim report followed by a Post Excavation Assessment before final reporting.

Any specialist conservation necessary will be undertaken by Cardiff Conservation Services, Cardiff University. This will be conducted in accordance with guidelines issued by the Institute for Conservation.

Following analysis all archaeological material recovered it is hoped that the material will be deposited in Oriel Mon Museum/Anglesey Archives. However, the client reserves the right to retain ownership of said artefacts. Processed assemblages will be boxed according to issued guidelines and a register of contents compiled prior to deposition. In the event that no artefactual material is recovered/the artefactual material is not to be retained/is to be retained by the client then the paper and digital archive will be deposited with the RCAHMW.

The works will be carried out in accordance with The Chartered Institute for Archaeologists: *Standard and Guidance for Archaeological Watching Brief* (Revised 2014).

4.2.4 Archive Compilation

All records created during the fieldwork will be checked for consistency and accuracy and will form part of the *Primary Site Archive (P1)* (EH 2006). The archive will contain all data collected, including records and other specialist materials. It will be ordered, indexed, adequately documented, internally consistent, secure, quantified, conforming to standards required by the archive repository and signposted appropriately to ensure future use in research, as detailed in the English Heritage *Management of Research Projects in the Historic Environment* (MoRPHE) methodology.

The archive will be assembled in accordance with the guidelines published in, *Standards in the museum care of archaeological collections* (Museums & Galleries Commission 1994), *Guidelines for the preparation of excavation archives for long-term storage* (United Kingdom Institute for Conservation, 1990) and *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (AAF 2007).

All materials contained within the *Primary Site Archive (P1)* that are subsequently identified by the *Assessment Report (P2)* as appropriate for analysis will be processed by suitable specialists and the resultant *Research Archive (P3)* will be checked and ordered according to *MoRPHE* criteria.

Should archaeological material be recovered it is hoped any archive/artefactual material created/discovered during this archaeological project will be deposited in Oriel Mon Museum/Anglesey Archives. Should no artefacts be recovered then the paper/digital archive will be deposited at the RCAHMW. This will also be the case should the client retain the artefact assemblage from the site. Archive material will be deposited in accordance with the terms and conditions for archive deposition.

4.3 Timetable for Proposed Works

It is envisaged that groundworks will commence in mid-late March and will be carried out on a day rate basis and staff will attend site as necessary. Additional time will be allotted as necessary for archive research, report compilation and site archiving. Gwynedd Archaeological Planning Services will be informed of the exact site days to allow monitoring of works.

4.4 Staffing

The project will be managed by Matthew Jones (BA (Archaeology), MA (Archaeology)). All staff will have a skill set equivalent to the CIfA ACIfA level. C.Vs for all staff employed on the project can be provided on request. All projects are carried out in accordance with CIfA *Standard and Guidance* documents.

4.5 Monitoring

The project will be subject to monitoring by Gwynedd Archaeological Planning Services. The monitor will be given prior notice of the commencement of the fieldwork. A projected time-scale and copy of the risk assessment can be provided on request to the monitoring body prior to the commencement of works.

They will be notified in writing (via email) of the commencement dates for archaeological site work and will be updated with the results of all works conducted as watching brief elements. This will be initially as a telephone call & email with attached JPEG photographs and if/when required further interim reports will be compiled.

4.6 Health and Safety

A risk assessment will be conducted prior to the commencement of works and site staff will be familiarised with its contents. A first aid kit will be located in the site vehicle.

All staff will be issued with appropriate Personal Protective Equipment (PPE) for the site work. Initially this is anticipated to consist of:

- Safety Helmets (EN397)
- Hi-visibility vests (EN471)
- Safety footwear – steel toecap and mid-sole boots and Wellingtons (EN345-47)

Any further PPE required will be provided by CR Archaeology

All staff will have passed at least a CITB health and safety test at least operative level and will carry a CSCS card.

CR Archaeology staff are not the principle contractor on site and will also comply with any Health and Safety Policy or specific on-site instructions provided by the client or their appointed Principal contractor or H&S coordinator.

4.7 The Report

The report will clearly and accurately incorporate information gained from the programme of archaeological works. It will present the documentary evidence gathered in such a way as to create a clear and coherent record. The report will contain a site plan showing the locations of photographs taken.

As a minimum the report will include:

- bilingual summary
- a copy of the design brief and agreed specification
- a location plan
- all identified features and significant finds plotted on an appropriately scaled site plan

- full dimensional and descriptive detail of all identified finds and features
- a full bibliography of sources consulted
- a digital copy of the report and an archive compact disc/USB file

Copies of the reports in Adobe PDF format will be sent to the appropriate monitoring archaeologist for approval before formal submission. A bound paper copy and PDF digital copy of the report will be submitted as part of the formal submission. A digital Adobe PDF version and a bound paper copy of the final report and will be lodged with the Gwynedd Historic Environment Record within six months of completion of fieldwork. The new (2018) Guidance for the Submission of the Data to the Welsh Historic Environment Records document will be followed.

In the event of a positive result of site works a short article will be submitted to the Archaeology in Wales Journal.

4.7.1 Copyright

CR Archaeology and sub-contractors shall retain full copyright of any commissioned reports, tender documents or other project documents, under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it hereby provides a licence to the client and the local authority for the use of the report by the client and the local authority in all matters directly relating to the project as described in the Project Specification.

5.0 Bibliography

AAF. 2007. *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*

English Heritage. 2006. *Management of Research Projects in the Historic Environment (MORPHE)*

The Chartered Institute for Archaeologists. 2014. *Code of Conduct*

The Chartered Institute for Archaeologists. 2014. *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*

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

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Walker, K.1990. *Guidelines for the preparation of excavation archives for long-term storage*, United Kingdom Institute for Conservation (UKIC) Archaeology Section

Watkinson, D. & Neal, V. 2001. *First Aid for Finds*. London. United Kingdom Institute for Conservation of Historic & Artistic Works

Websites (All websites were consulted on 23/01/2019)

www.mapapps.bgs.ac.uk/geologyofbritain/home.html

Appendix A.

Proposed Development Plans