

Archaeology Wales

Pebblig Bridge, Caenarfon

Archaeological Watching Brief



By

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Report No. 1935

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Archaeological Watching Brief

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Report No. 1935

January 2021



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Non-Technical Summary

This report results from an archaeological mitigation carried out by Archaeology Wales Ltd (AW) at the request of Dave Fisher of Amco-Giffen. The work consisted of an archaeological watching brief during groundworks associated with engineering works at Pont Melin Peblig, Ffordd Llanbeblig, Caernarfon, Gwynedd, LL55 2SE. The engineering works consisted of the infilling the bridge, providing an embankment each side of the bridge, and installing a drainage system. The site is centred on SH 49316 62040, and the planning application number is C19/0380/26/LL.

The watching brief uncovered no remains from an earlier period other than finds dating to the latter half of the 20th century or early 21st century.

The excavations in the northern site area were within the footprint of the old railway cutting and only cut into post abandonment deposits with some modern material within them, all dating to after the closure of the Nantlle tramway in 1963.

The excavations in the southern site area did no more than to remove quantities of modern waste and pond deposits from recent times and uncovered evidence for the work access put in place during the earlier remedial works to support the tunnel roof/bridge and overlying roadway.

All work was undertaken in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2020).

Crynodeb Annhechnegol

Mae'r adroddiad hwn yn deillio o liniaru archeolegol a gynhaliwyd gan Archaeology Wales Ltd (AW) ar gais Dave Fisher o Amco-Giffen. Roedd y gwaith yn cynnwys briff gwylio archeolegol yn ystod gwaith daear sy'n gysylltiedig â gwaith peirianeg ym Mhont Melin Peblig, Ffordd Llanbeblig, Caernarfon, Gwynedd, LL55 2SE. Roedd y gwaith peirianeg yn cynnwys mewnlenni'r bont, darparu arglawdd bob ochr i'r bont, a gosod system ddraenio. Mae'r safle wedi'i ganoli ar SH 49316 62040, a rhif y cais cynllunio yw C19 / 0380/26 / LL.

Datgelodd y briff gwylio unrhyw weddillion o gyfnod cynharach heblaw darganfyddiadau sy'n dyddio i hanner olaf yr 20fed ganrif neu ddechrau'r 21ain ganrif.

Roedd y cloddiadau yn ardal y safle gogleddol o fewn ôl troed yr hen reilffordd yn torri a dim ond yn torri i mewn i ddyddodion ôl-adael gyda rhywfaint o ddeunydd modern ynddynt, pob un yn dyddio ar ôl cau tramffordd Nantile ym 1963.

Ni wnaeth y cloddiadau yn ardal y safle deheuol ddim mwy na chael gwared ar lawer o sbwriel modern a dyddodion pyllau yn ddiweddar a dadorchuddiwyd tystiolaeth ar gyfer y mynediad gwaith a roddwyd ar waith yn ystod y gwaith adfer cynharach i gynnal to / pont y twnnel a'r ffordd uwchben.

Gwnaed yr holl waith yn unol â safonau a chanllawiau Sefydliad Siartredig Archeolegwyr (2020).

1. Introduction

- 1.1.1 Archaeology Wales (henceforth – AW) was commissioned by Dave Fisher of Amco-Giffen to undertake an archaeological watching brief during groundworks associated with engineering works at Pont Melin Peblig, Ffordd Llanbeblig, Caernarfon, Gwynedd, LL55 2SE. The engineering works consisted of the infilling the bridge, providing an embankment each side of the bridge, and installing a drainage system. The site is centred on SH 49316 62040, and the planning application number is C19/0380/26/LL.
- 1.1.2 A Written Scheme of Investigation (WSI) was prepared by Irene Garcia Rovira (Project Manager, AW) and the methodology set out in the WSI was agreed with by Gwynedd Archaeological Trust Planning Service (GAPS). GAPS recommended that intrusive groundworks in areas assessed to be archaeologically sensitive should be monitored through the implementation of an archaeological watching brief.
- 1.1.3 The purpose of the archaeological mitigation (watching brief) was to provide GAPS with sufficient information regarding the nature of archaeological remains within the area of work, the requirements for which are set out in *Planning Policy Wales* (edition 10), Section 6.1.27 and *Technical Advice Note (TAN) 24: The Historic Environment* sections 4.13 and 4.14. The work was to ensure that all buried artefacts and deposits were fully investigated and recorded if they were disturbed or revealed as a result of activities associated with the development.
- 1.1.4 The watching brief took place on 20th and 21st October 2020 and was supervised by Jerry Bond (ACIfA). This report was written by James Evans (PCIfA), and the project was managed by Irene Garcia Rovira (MCIfA). All work conformed to the standards and guidance set by the Chartered Institute for Archaeologists (2014). AW is a Registered Organisation with the ClfA.

2. Site Description

- 2.1.1 Peblig Bridge is a single span bridge which carries the A4085 across the disused Caernarvon to Llanberis railway (centred on NGR SH 49316 62404).

The bridge is formed by six cast iron girders with brick arches spanning between them. The girders are sustained by steel beams which are in turn supported by concrete columns.

- 2.1.2 The underlying geology of the area comprises of siltstone belonging to the Nant Ffrancon Subgroup. This sedimentary bedrock formed approximately 449 to 478 million years ago in the Ordovician Period. The superficial soils consist of alluvium of gravel, sand, silt, and clay, which was formed up to 2 million years ago in the Quaternary Period (BGS 2021).

3. Archaeological & Historical Background

3.1 Previous Archaeological Studies/Investigations

- 3.1.1 A rapid examination of all recorded heritage sites within 0.5km of the bridge was carried in order to further understand any archaeological remains that might result from the watching brief:

Palaeolithic (c.450,000 - 10,000 BC), Mesolithic (c.10,000 - 4400 BC), Neolithic (4400 BC - 2300 BC), Bronze Age (2300 BC - 700 BC), Iron Age (700 BC - AD 43)

- 3.1.2 Little is known about the prehistoric period of the area surrounding the development site. However, a Neolithic pit (PRN 34067) was recorded at nearby Ysgol yr Hendre, Llanbeblig. The pit contained flint debitage and possible Neolithic pottery. A standing stone has been recorded near Tyddyn Pandy Cottage, Caernarfon (PRN 3620). However, it has recently been suggested that it is a post-medieval cattle rubbing stone rather than a standing stone.

Roman (AD 43 - c. AD 410)

- 3.1.3 The Roman military arrived in Britain in AD 43, bringing large parts of lowland England under their control by the summer of AD 47. By the AD 50s and 60s attention then turned to the conquest of Wales, and Roman forces were soon fighting the Iron Age tribes of Wales (Williams 1985, pp. 1-2). Wales was finally brought under Roman control in AD 76/77 when the governor of Britannia,

Agricola, suppressed a rebellion of the Ordovices, and then captured the Isle of Anglesey.

3.1.4 Roman occupation is prevalent in the area surrounding the proposed development site, and this is dominated by the remains of the Roman auxiliary fort, Segontium (CN006; PRN 3089; NPRN 93511). The fort is approximately 790m to the north-west of the development area. The construction of this fort, which over looks the Menai Strait towards Anglesey, can be linked to Agricola's completed conquest of Wales. Segontium was linked to a series of other forts and supported by the legionary fortresses of Chester and Caerleon by a network of roads (Davies 2005).

3.1.5 There are several Roman roads that are evident in this area, but one (PRN 17533) is believed to be on the same trajectory as the A4085, which crosses the bridge at the centre of the watching brief. There is another Roman road (PRN 17824) c. 180m south of the site.

3.1.6 During archaeological work at Ysgol yr Hendre, Llanbeblig (c. 460m to the north-west of the current site) a series of Romano-British features were identified. Fifteen possible Roman military field ovens were recorded (PRN 34048, 34049, 34050, 34051, 34052, 34054, 34056, 34057, 34058, 34059, 34060, 34061, 34062, 34063 & 34055). These were dated to the 1st to 2nd century AD which correlates with Agricola's military campaign and the subsequent establishment of Segontium.

Early Medieval (c. AD 410 - AD 1086) & Medieval (1086 - 1536)

3.1.7 The early medieval history of Wales is often fragmented and poorly documented (Carr 1995, p. 27). However, excavations by GAT, approximately 400m to the north-west of the current site at Ysgol yr Hendre, revealed 3 mortuary enclosures and 46 graves with 4 other features that might possibly be graves. Two of the mortuary enclosures each contained a single central grave, while the third had 3 graves inside it (Kenney & Parry 2013, p. 11). These mortuary enclosures have been identified as early medieval square barrow cemetery (PRN 34043; NPRN 404650). Further mortuary enclosures were also identified (PRN 24774, 34044 & 34046). However, another apparent square-

ditched enclosure (PRN 29301) was excavated, and the excavations revealed a post-medieval ditch and some pits, but there was no trace of a mortuary enclosure or graves.

3.1.8 By the 11th century there were four main kingdoms, Gwynedd in the north, Powys in the centre, Deheubarth in the south-west, and Morgannwg in the south-east (Carr 1995, p. 27). In the late 13th century Edward I began his conquest of Wales and by 1283 he had begun construction on a walled town and castle at Caernarfon. The castle was completed in c. 1330. The borough was established by charter in 1284 and the town was the capital of the principality of Wales until 1536, and later became the county town (RCAHMW 1960, p. 115-118).

3.1.9 The excavations at Ysgol yr Hendre also revealed later medieval features, and these included a corn drier (PRN 34071), a gully (PRN 34070), and a pit (PRN 34068).

Post-Medieval (1536 - 1899) & Modern (1900 - present)

3.1.10 There are a number of post-medieval industrial buildings to the immediate south-west of the current site. One of the earliest buildings is that of Peblig Woollen Factory (PRN 34501; NPRN 418868). In the early 1800s this was a flour mill, but over the centuries has undergone various ownership and changes in use. Adjacent to this building is the Brunswick Ironworks (PRN 29458) which was founded in 1906.

3.1.11 The bridge itself arches over the former Nantlle Railway. This railway line run from Nantlle to Caernarfon, and between 1828 and 1866 it transported slate from a number of quarries to the port in the town. The Nantlle Railway forms part of the transport corridor associated with Gwynedd's historic slate landscape. The line also operated as a public service in the 1860s between Caernarfon and Talysarn, and it was the first line in North Wales to provide this service. The line was decommissioned in 1963.

4. Methodology

- 4.1.1 The watching brief (WB) was carried out by a suitably qualified archaeologist on all groundworks associated with the development that could disturb sub-surface deposits containing potential archaeological material. The mechanical excavation was undertaken by a tracked 360-degree excavator using a toothless ditching bucket.
- 4.1.2 The site archaeologist undertaking the watching brief was afforded the required access by the main contractor in order to observe and where necessary to record any archaeological remains revealed. Groundworks were not undertaken without the presence of the site archaeologist.
- 4.1.3 All deposits were recorded by means of a continuous context numbering system and recorded on pro-forma context sheets. Sections and plans of the excavation were photographed using a 12MP digital camera. All works were undertaken in accordance with the ClfA's *Standard and guidance for an archaeological watching brief* (update 2020) and current Health and Safety legislation.

5. Watching Brief Results (Plates 1-20)

- 5.1.1 During the watching brief, an extensive catalogue of digital photographs were taken using a DigiSLR camera recording up to 24mega pixels. A total of 101 photos were taken, 40 of which were taken to document the bridge and site prior to the commencement of the watching brief, a further 13 photos were taken of the current roadway running across the bridge and the remaining 48 were taken as a record of the works associated with the project.
- 5.1.2 The site can be split into two areas for convenience, the area to the north of the bridge, the Northern Site, and the area to the south of the bridge, the Southern Site.

5.2 Northern Site

- 5.2.1 This area of the site was excavated in two stages. The first stage reduced the ground level c. 0.5m within an area measuring 2m x 5m. Groundworks only

revealed a deposit - (1000) - made of very dark brown clayey loam containing plentiful quantities of plastic bags, glass bottles and other artefacts all dating to the 20th or 21st centuries.

5.2.2 During a second phase of digging, the area was enlarged by stepping both sides to cover an area of 9m width and 6m length. No earlier deposits or remains were encountered during the works in the northern site area.

5.2.3 The excavations were within the footprint of the former railway line and did not extend beyond or below the deposit of made ground that covered this area of the site.

5.3 Southern Site

5.3.1 This area of the excavation was overgrown with trees and was also the location of a rubbish filled pond, mostly black refuse sacks, glass and plastic bottles, vehicle tires and iron formwork, etc. There were concerns that there might be sharps among the waste, therefore no manual handling or collection of the artefacts was undertaken.

5.3.2 Prior to any groundworks, the area was vacated of any rubbish using both mechanical and manual means, and the trees were felled.

5.3.3 Following removal of the water and the majority of the rubbish from the excavation area, excavation commenced using a 360 tracked excavator which very quickly came down onto a concrete surface on the west of the site area and also a metal pipe which was found to contain a live electrical service.

5.3.4 The concrete surface, a pathway, butted against the concrete layer beneath the columns within the tunnel. The pathway and the concrete surface within the tunnel, were part of the same program of works undertaken to support the roadway. This must have been during an earlier phase of consolidation of the tunnel roof and the bridge and associated roadway by the insertion of 12 concrete columns within the tunnel.

5.3.5 Following the uncovering of the concrete surface and the live electrical service excavation was terminated at this time. It was considered possible that the

testing of the ground to the south of the bridge could be successfully undertaken within the exposed footprint.

6. The Finds

6.1.1 No finds of archaeological significance were recorded during the archaeological watching brief.

7. Discussions and Conclusions

7.1.1 The watching brief uncovered no remains from an earlier period other than finds dating to the latter half of the 20th century or early 21st century.

7.1.2 The excavations in the northern site area were within the footprint of the old railway cutting and only cut into post abandonment deposits with some modern material within them, all dating to after the closure of the Nantlle tramway in 1963.

7.1.3 The excavations in the southern site area did no more than to remove quantities of modern rubbish and pond deposits from recent times and uncovered evidence for the work access put in place during the earlier remedial works to support the tunnel roof/bridge and overlying roadway.

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(accessed 15/01/2021)

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Appendix I

Figures

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Figure 1. Site Location

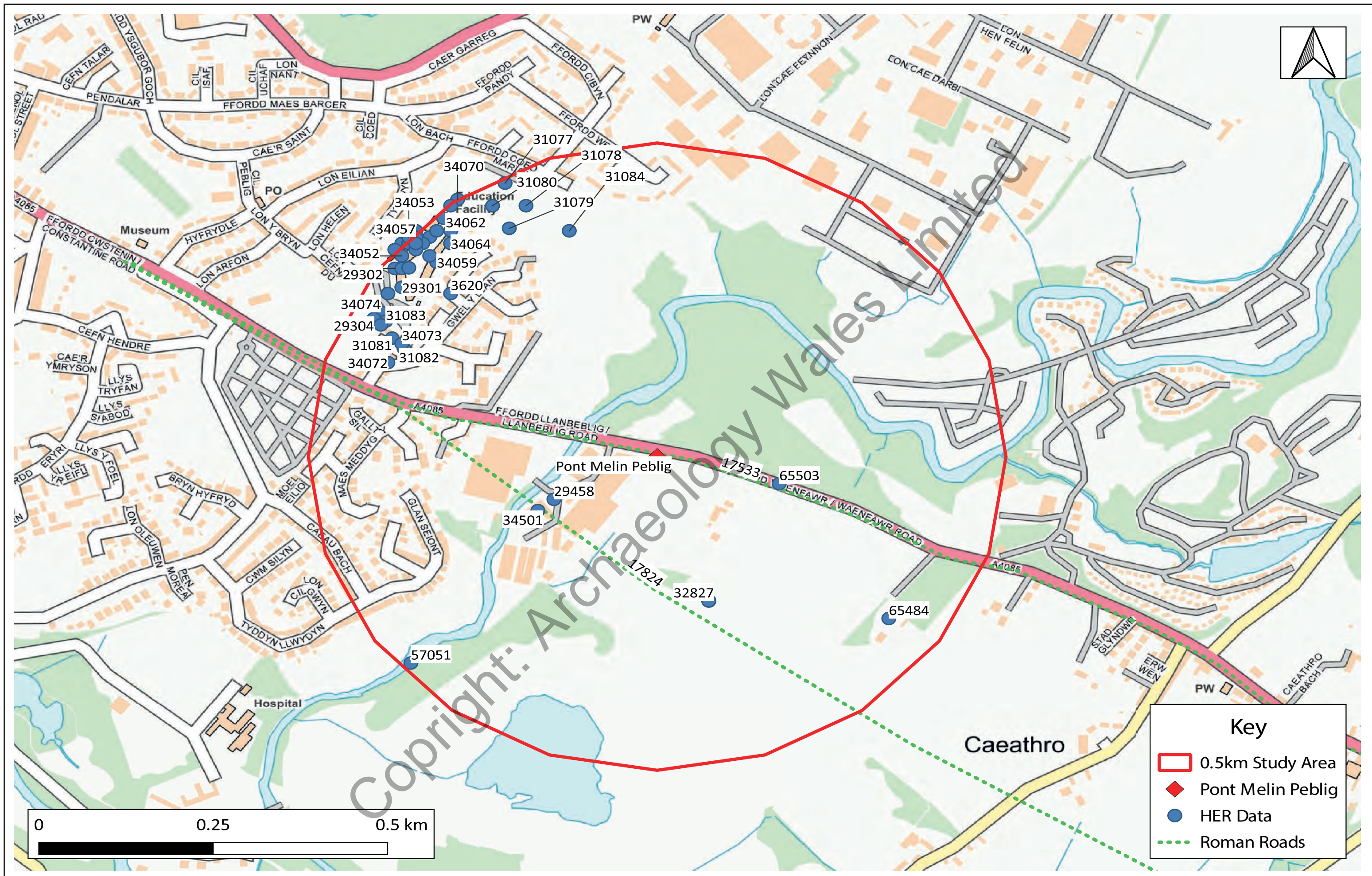


Figure 2. Site with 0.5km study area surrounding it, with HER data (blue) and Roman Roads (green dotted line)

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Appendix II

Plates

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Plate 1



Plate 2

Plate1-2: Pre-excavation shots looking NE



Plate 3



Plate 4

Plate 3-4: Pre-excavation shots looking NW and N respectively.



Plate 5



Plate 6

Plate 5-6: Pre-excavation shots looking SW.



Plate 7



Plate 8

Plate 7-8: Watching brief looking NW.



Plate 9



Plate 10

Plate 9: Watching brief looking NE.
Plate 10: Watching brief looking SW.



Plate 11



Plate 12

Plate 11: View after groundworks, looking SW.

Plate 12: Road over bridge, looking W.



Plate 13



Plate 14

Plate 13: View over bridge looking ESE.
 Plate 14: View over bridge looking SW.



Plate 15



Plate 16

Plate 15: View of watching brief area after excavation looking SW.

Plate 16: View of watching brief area after excavation looking E.



Plate 17



Plate 18

Plate 17: Section after excavation looking NW.
 Plate 18: View of bridge looking NE.

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Appendix III

Context Register

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Appendix III: Context Register

Context Numbers	Context Type	Description
1000	Deposit	Topsoil/overburden
1001	Deposit	Natural
1002	Structure	Peblig Bridge
2000	Deposit	Topsoil/overburden
2001	Structure	Peblig Bridge (same as 1002)
2002	Structure	Concrete path
2003	Pipe	Iron pipe with service line

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Appendix IV

Written Scheme of Investigation (WSI)

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WRITTEN SCHEME OF INVESTIGATION

FOR AN ARCHAEOLOGICAL WATCHING BRIEF

Peblig Bridge, Caernarfon, Gwynedd

Prepared for:

Dave Fisher

Project No: 2834

October 2020



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Figure 1. Site location plan

1. Introduction and planning background

This Written Scheme of Investigation (WSI) details a programme of archaeological mitigation to be undertaken by Archaeology Wales Ltd (henceforth – AW) at the request of Dave Fisher.

The archaeological mitigation will consist of a watching brief and will be undertaken during ground works associated with engineering works to infill the bridge and provide embankment each side and install drainage system at Pont Melin Peblig, Ffordd Llanbeblig, Caernarfon, Gwynedd, LL55 2SE (SH 49316 62040). Planning Application – C19/0380/26/LL.

This WSI has been prepared by Irene Garcia Rovira, Project Manager, AW.

The methodology set out in this WSI has been agreed with Gwynedd Archaeological Trust Planning Service (GAPS). GAPS has recommended that intrusive groundworks in areas assessed to be archaeologically sensitive should be monitored through the implementation of an archaeological watching brief.

The purpose of the archaeological mitigation (watching brief) is to provide GAPS with sufficient information regarding the nature of archaeological remains within the area of work, the requirements for which are set out in Planning Policy Wales (edition 10), Section 6.1.27 and Technical Advice Note (TAN) 24: sections 4.13 and 4.14. The work is to ensure that all buried artefacts and deposits are fully investigated and recorded if they are disturbed or revealed as a result of activities associated with the development.

All work will be undertaken to the standards and guidance set by the Chartered Institute for Archaeologists. AW is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA).

2. Site Description

Peblig Bridge is a single span bridge which carries the A4085 across the discussed Caernarfon to Llanberis railway (SH 49316 62404). The bridge is formed by six cast iron girders with brick arches spanning between them. The girders are sustained by steel beams which are in turn supported by concrete columns.

The underlying geology of the area is defined by Llanvirn Rocks (undifferentiated) - Mudstone, Siltstone and Sandstone formed in the Ordovician Period. The superficial soils are characterised by Till-Diamicton formed during the Quaternary Period (BGS 2020).

The historical/archaeological background associated with the bridge is detailed in the letter issued by GAPS on the 15.5.19. The main elements discussed are itemised below:

- The alignment of the bridge and associated road appears to occupy the same trajectory as a Roman Road associated with Segontium (PRN 3089).

- A number of industrial buildings associated with post-medieval manufacture are located to the SW of the bridge (e.g. Peblig Woollen Factory – PRN 34501, Brunswick Iron Works – PRN 29458).
- The bridge arches the disused Nantlle Railway, associated with the transport of slate from the quarries to the port.

3. Objectives

This WSI sets out a program of works to ensure that the watching brief will meet the standard required by The Chartered Institute for *Archaeologist's Standard and Guidance for Archaeological Watching Briefs* (update 2020).

The objective of the watching brief will be:

- to allow the investigation, recording and reporting of any archaeological features that are uncovered during the proposed groundworks within the application area.
- to provide the opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief are not sufficient to support the treatment to a satisfactory or proper standard.

A written report will be compiled following the fieldwork. Sufficient desk-top research will be undertaken to ensure that the results of this work are properly understood, interpreted and reported.

The report will include a comprehensive assessment of the historic context within which the archaeological evidence rests and will aim to highlight any relevant research issues within regional, national and, if relevant, international research frameworks.

4. Timetable of Works

4.1. Fieldwork

The watching brief will be undertaken during ground works associated with the proposed development. AW will update GAPS with the exact date.

4.2. Report delivery

The report will be submitted to the client and to GAPS within three months of the completion of the fieldwork. A copy of the report will also be sent to the regional HER.

5. Fieldwork

5.1. Detail

The work will be undertaken to meet the standard required by The Chartered Institute for *Archaeologist's Standard and Guidance for Watching Briefs* (update 2020).

The Watching Brief will be carried out by a suitably qualified archaeologist on all groundworks associated with the development that could disturb sub-surface deposits containing potential archaeological material.¹ The mechanical excavation will always be undertaken by a tracked 360-degree excavator using a toothless ditching bucket.

The site archaeologist undertaking the watching brief will be afforded the required access by the main contractor in order to observe and where necessary to record any archaeological remains revealed. Groundwork will not be undertaken without the presence of the site archaeologist. The site archaeologist will record finds and less significant archaeological deposits and features without significant delay to the work program.

Any archaeological deposits or features encountered will be fenced off and highlighted to all contractors employed on the site. Once a meeting between the client, GAPS and AW has taken place, the features will be excavated at an appropriate sample rate.

To comply with professional guidelines, a contingency for a further limited period of uninterrupted access to each such areas and for a suitably sized team of further archaeologists to be employed should be provided. Contingency costs will be agreed in advance before any extension to the programme commences and will follow a site meeting between AW, the client and GAPS.

The phases of work and proposed works are itemised below:

Phase 1

- Inject grout under the existing concrete slab to fill the void.
 - Excavate and proof roll the ground to the south of the bridge.
 - Place and compact 6N material to the level shown in the construction drawing.
 - Place layer of PVC sheet sandwiched between two layers of geotextile on top of Class 6N material and the northern formation.
 - Place 2No. HDPE pipe on 250mm bed of Class 6C material.
 - Place Class 6C material to give a cover of 250mm over the pipes.
 - Place a layer of Terram 1000 or other approved geotextile over the Class 6C material.
 - Progressively place and compact layers of Class 6N granular fill beneath the structure and in the formation terminating the placement when compaction becomes impracticable.
 - Embankments to be formed on both sides of the bridge with a maximum slope of 1 in 1.5. The southern embankment is expected to have a slope of approximately 1 in 2.15.
 - Excavate 2No. trenches to ascertain the position of the services within the bridge deck as well as the location of the jack arch crowns.
-

- Core through the bridge deck at 2No. points along the crown of each jack arch.
- Erect formwork at the north and south faces of the bridge and fill the remaining void under the bridge with free-flowing foamed concrete, terminating the pour level with the top flange of the edge girders.
- Form the remainder of the embankments.
- Place a 150mm layer Class 5B topsoil and hydraulic much seed on the embankment slopes.
- Plate over the cored holes and reinstate all disturbed areas to Local Highway Authority's specification.

Phase 2

- After a period of twelve months from the completion of the Phase 1 works, a check for settlement is to be undertaken and any voids found are to be filled. The works will include the following:
 - Excavate trial pits to allow core investigatory holes through the deck and inspect the arches with an endoscope.
 - Infill any void found using foam concrete or grout depending on size.
 - Reinstatement all disturbed areas to Local Highways Authority's specification.

5.2. Recording

Recording will be carried out using AW recording systems (pro-forma context sheets etc) using a continuous number sequence for all contexts.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.

All features identified will be tied into the OS survey grid and fixed to local topographical boundaries.

Photographs will be taken in digital format with an appropriate scale, using a 12MP camera with photographs stored in Tiff format.

The archaeologist undertaking the watching brief will have access to the AW metal detector and be trained in its use.

5.3. Finds

The professional standards set in the Chartered Institute for Archaeologists' *Standard and guidance for the collection, documentation, conservation and research of archaeological* (2014) will form the basis of finds collection, processing and recording.

All manner of finds regardless of category and date will be retained.

Finds recovered that are regarded as Treasure under *The Treasure Act 1996* will be reported to HM Coroner for the local area.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (normally Phil Parkes at Cardiff University).

5.4. Environmental sampling strategy

Deposits with a significant potential for the preservation of palaeoenvironmental material will be sampled, by means of the most appropriate method (bulk, column etc). Where sampling will provide a significant contribution to the understanding of the site AW will draw up a site-specific sampling strategy alongside a specialist environmental archaeologist. All environmental sampling and recording will follow English Heritage's *Guidelines for Environmental Archaeology* (2nd Edition 2011).

5.5. Human remains

In the event that human remains are encountered, their nature and extent will be established, and the coroner informed. All human remains will be left *in situ* and protected during backfilling. Where preservation *in situ* is not possible the human remains will be fully recorded and removed under conditions that comply with all current legislation and include acquisition of licenses and provision for reburial following all analytical work. Human remains will be excavated in accordance with the Chartered Institute for Archaeologists' *Updated Guidelines to the Standards for Recording Human Remains* (2017).

A meeting with GAPS, and the client and AW will be called if the human remains uncovered are of such complexity or significance that the contingency arrangement (5.1 above) would not be of sufficient scope.

5.6. Specialist advisers

In the event of certain finds, features or sites being discovered, AW will seek specialist opinion and advice. A list of specialists is given in the table below although this list is not exhaustive.

Artefact type	Specialist
Flint	Julie Birchenall (University of Manchester)
Animal bone	Richard Madgwick (Cardiff University)
CBM, heat affected clay, Daub etc.	Rachael Hall (APS)
Clay pipe	Charley James-Martin (Archaeology Wales)
Glass	Rowena Hart (Archaeology Wales)
Cremated and non-cremated human bone	Malin Holst (University of York)/Richard Madgwick (Cardiff University)
Metalwork	Kevin Leahy (University of Leicester)/ Quita Mold (Freelance)
Metal work and	Dr Tim Young (GeoArch)

metallurgical residues	
Neo/BA pottery	Dr Alex Gibson (Bradford University)
IA/Roman pottery	Jane Timby (Freelance)
Roman Pottery	Rowena Hart (Archaeology Wales)/ Peter Webster (Freelance)
Post Roman pottery	Stephen Clarke (Monmouthshire Archaeology)
Charcoal (wood ID)	John Carrot (Freelance)
Waterlogged wood	Nigel Nayling (University of Wales – Lampeter)
Molluscs and pollen	Dr James Rackham
Charred and waterlogged remains and plant	Wendy Carruthers (Freelance)

5.7. Specialist reports

Specialist finds and palaeoenvironmental reports will be written by AW specialists, or sub-contracted to external specialists when required.

6. Monitoring

GAPS will be contacted approximately five days prior to the commencement of archaeological site works, and subsequently once the work is underway.

Any changes to the WSI that AW may wish to make after approval will be communicated to GAPS for approval on behalf of the client.

Representatives of GAPS will be given access to the site so that they may monitor the progress of the watching brief. GAPS will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

7. Archive and Reporting programme

7.1. Site archive

An ordered and integrated site 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.

The site archive – including all artefacts, soil samples and records – will be subjected to selection in order to establish those elements that will be retained for long term curation.

The selection strategy will be agreed with all stakeholders and will be detailed in the Selection Strategy and Data Management Plan (ClfA update 2020).

The site archive (including artefacts and samples) will be prepared in accordance with the National Monuments Record (Wales) agreed structure and deposited with an appropriate receiving organisation, in compliance with ClfA Guidelines (Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives', Update 2020). The legal landowners' consent will be gained for deposition of finds. The project will adhere to the Welsh Archaeological Trust's joint Guidance for the Submission of Data to the Welsh Historic Environment Records (2018).

7.2. Analysis

Following a rapid review of the potential of the site archive, a programme of analysis and reporting will be undertaken.

This will result in the following inclusions in the final report:

- A bilingual non-technical summary
- Location plan showing the area/s covered by the watching brief, all artefacts, structures and features found
- Plan and section drawings (if features are encountered) with ground level, ordnance datum and vertical and horizontal scales.
- Written description and interpretation of all deposits identified, including their character, function, potential dating and relationship to adjacent features. Specialist descriptions and illustrations of all artefacts and soil samples will be included as appropriate.
- An indication of the potential of archaeological deposits which have not been disturbed by the development
- A discussion of the local, regional and national context of the remains by means of reviewing published reports, unpublished reports, historical maps, documents from local archives and the regional HER as appropriate.
- A detailed archive list at the rear listing all contexts recorded, all samples finds and find types, drawings and photographs taken. This will include a statement of the intent to deposit, and location of deposition, of the archive.

7.3. Reports and archive deposition

Report to client

Copies of all reports associated with the watching brief, together with inclusion of supporting evidence in appendices as appropriate, including photographs and illustrations, will be submitted to the client upon completion, and for formal submission.

Additional reports

After an appropriate period has elapsed, copies of all reports will be deposited with the relevant county Historical Environment Record, the National Monuments Record and, if appropriate, Cadw. 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).

Summary reports for publication

Short archaeological reports will be submitted for publication in relevant journals; as a minimum, a report will be submitted to the annual publication of the regional CBA group or equivalent journal.

Notification of important remains

Where it is considered that remains have been revealed that may satisfy the criteria for statutory protection, AW will submit preliminary notification of the remains to Cadw.

Archive deposition

The final archive (site and research) will, whenever appropriate, be deposited with a suitable receiving institution, usually the relevant Local Authority museums service. Arrangements will be made with the receiving institution before work starts. If the archive is not acceptable the archive will be deposited with Amgueddfa Cymru – National Museum Wales, Cardiff. If no artefacts are recovered then the archive will be deposited with the *National Monuments Record*, RCAHMW, Aberystwyth. Arrangements will be made with the receiving institution before work starts.

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.

Copies of all reports, the digital archive and an archive index will be deposited with the National Monuments Record, RCAHMW, Aberystwyth.

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 GAPS.

Finds deposition

The finds, including artefacts and ecofacts, excepting those which may be subject to the Treasure Act, will be deposited with the same institution, subject to the agreement of the legal landowners.

8. Staff

The project will be managed by Irene Garcia Rovira MCIfA (AW Project Manager) and the fieldwork undertaken by AW Staff. Any alteration to staffing before or during the work will be brought to the attention of GAPS and the client.

9. Health and Safety

9.1. Risk assessment

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 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.

9.2. Other guidelines

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).

10. Community Engagement and Outreach

Wherever possible, AW will ensure suitable measures are in place to inform the local community and any interested parties of the results of the site investigation work. This may occur during the site investigation work or following completion of the work. The form of any potential outreach activities may include lectures and talks to local groups, interested parties and persons, information boards, flyers and other forms of communication (social media and websites), and press releases to local and national media.

The form of any outreach will respect client confidentiality or contractual agreements. As a rule, outreach will be proportional to the size of the project.

Where outreach activities have a cost implication these will need to be negotiated in advance and in accordance with the nature of the desired response and learning outcomes.

11. Insurance

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.

12. Quality Control

Professional standards

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 watching briefs* 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.

Project tracking

The designated AW manager will monitor all projects in order to ensure that agreed targets are met without reduction in quality of service.

13. Arbitration

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.

14. References

Chartered Institute for Archaeologists, update 2020. *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, update 2020. *Standards and guidance for an archaeological watching brief*

English Heritage, 2002. *Guidelines for Environmental Archaeology*

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

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)*

Archaeology Wales

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