

Results of Archaeological Assessment at

A55 Tal y Bont Flood Alleviation Scheme

NGR SH 60952 70011



Report Number CR95-2015



C.R Archaeology

Compiled by C. Rees & M. Jones

on Behalf of Gwynedd County Council

Acknowledgements

C.R Archaeology wish to thank the staff at Gwynedd and Bangor University Archives for their all their assistance with our research. We also wish to thank the landowners and tenants for allowing access to the proposed development area.

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1.0 Introduction

C.R Archaeology were instructed by Gwynedd County Council to conduct an archaeological assessment for the A55 Tal y Bont Flood Alleviation Scheme (Figure 1). This scheme comprises the route of the proposed swale to be constructed as a flood alleviation scheme for the village of Tal y Bont, Gwynedd, and the nearby section of the A55 dual carriageway, together with all associated works (see figure 2).

The proposed scheme is located to the south of the village of Tal y Bont, between the A55 and the northern boundary of the Snowdonia National Park. The scheme extends for approximately 720m from its eastern terminus at an unnamed tributary of the Afon Ogwen, curving gently to the north and terminating at the Afon Ogwen, where it is crossed by the A55. The anticipated width of the scheme varies from approximately 15m to approximately 65m. The site traverses two minor roads and four parcels of agricultural land, mainly characterised by improved pasture. Field boundaries comprise a mixture of hedgerow, post and wire fencing, slate and wire fencing and stone walls. Figure 2 details the proposed works.

A specification (CR92-2015 Appendix A) was written with reference to a "Design Brief for Archaeological Assessment" (D1886) prepared by Jenny Emmett of GAPS (dated 12th June 2014) as a methodology for an initial programme of works. It is intended that the results this document will inform decisions as to the nature of any further archaeological mitigation strategies which may be required.

The scheme is located within the Dyffryn Ogwen Registered Landscape of Outstanding Historic Interest, recognised for its dual significance as containing extensive prehistoric remains and for the influence and remains associated with the post-medieval to modern slate industry.

There are 20 sites of historical/archaeological interest recorded in the Gwynedd HER as lying within a 1000m search radius of the central point of the development. Nine of these sites have been assigned a post-Medieval date with two of the entries of unknown date also likely to belong to this later period. A potential for prehistoric activity is indicated by Tan-y-Marian hut group (Scheduled Ancient Monument Cn252) approximately 440m east of the scheme and the hut group at Rhiw Goch (Scheduled Ancient Monument Cn056) which at approximately 1300m to the south of the proposed scheme is outside the search area but is included due to the importance of the site to the general historic character of the area. The lack of HER entries for monuments/archaeological sites other than standing buildings/above ground remains is believed to largely be the result of a lack of development/excavation in this area rather than a paucity of actual sites. There are 34 Listed Buildings within a 1000m radius of the proposed development.

The extensive multi-period remains at Llandegai Industrial Estate/Parc Bryn Cegin, Llandygai, to the west of the Afon Ogwen hint at considerable Prehistoric and Medieval activity in the area. Monuments/features recorded at the sites include henges, a cursus, burnt mound, Neolithic and Iron Age/Romano-british settlement and an early medieval cemetery. Although this site is considered likely to be exceptional in both extent and quality of remains the land to the east of the Afon Ogwen has been less researched and its potential consequently less well understood. GAPS consider that the results from Parc Bryn Cegin could be taken as a general indication of significant activity within the locality throughout most periods and since the land crossed by the proposed scheme appears not to have been previously disturbed (excepting land immediately adjacent to the A55), it is considered to have potential for surviving buried archaeological deposits. The potential extent, nature and significance of the archaeological resource requires clarification in order to inform planning decisions at the site.

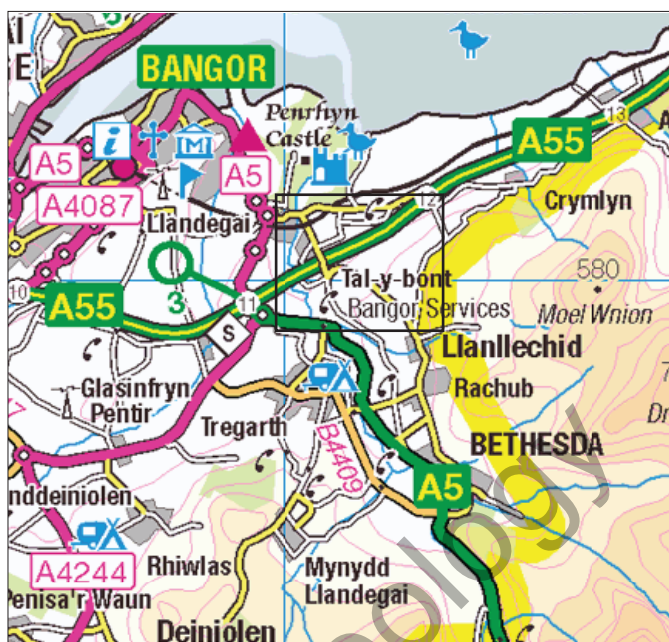
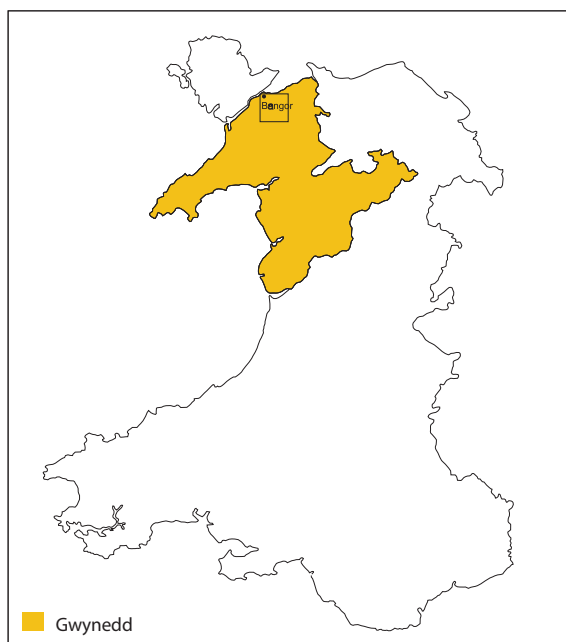


Figure 1. Site Location Map (Source: OS Open Data Mapping.
Contains Ordnance Survey data © Crown copyright and database right [2015])

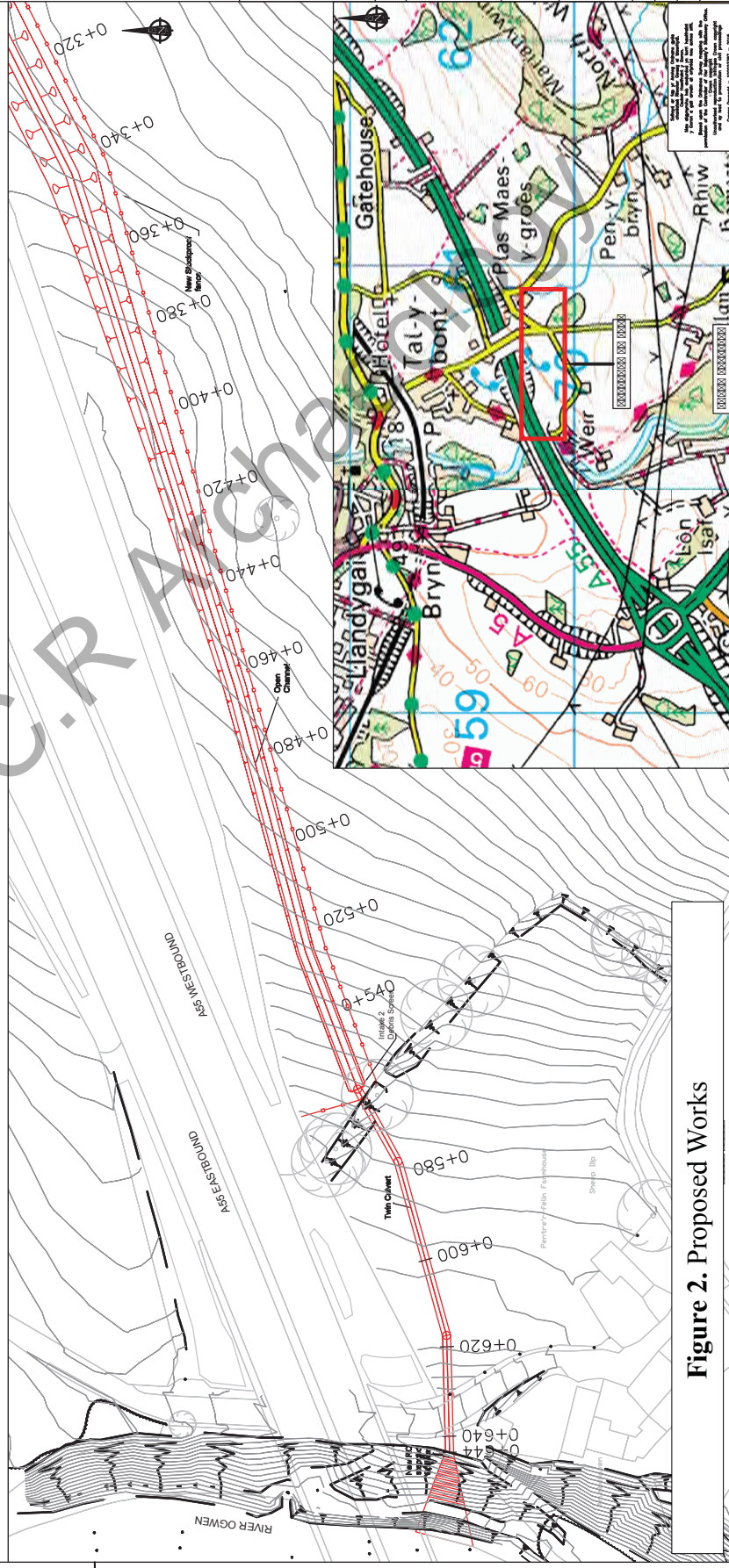
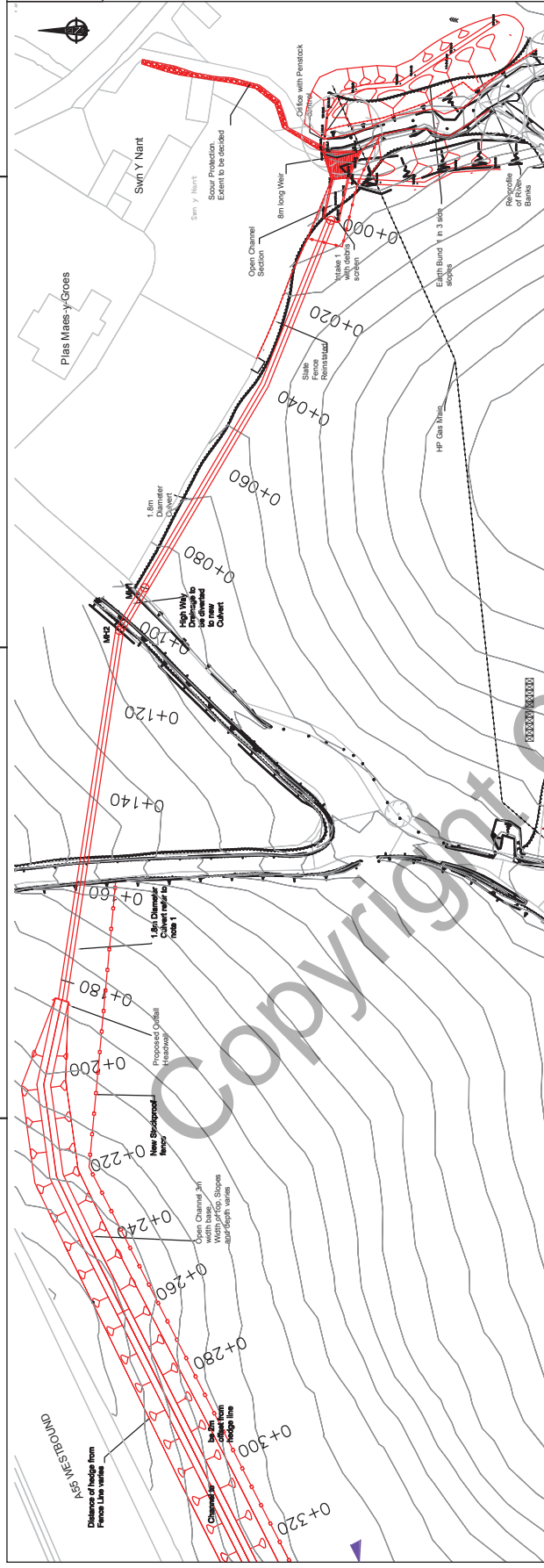


Figure 2. Proposed Works

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Following the desk-based research and the walkover survey works the proposed development site is considered to be of moderate – high archaeological potential and should remains be encountered the remains could be of moderate – high archaeological significance. It is therefore felt that mitigation is required to protect the archaeological resource. In this instance it is felt that preservation by record of any archaeological remains which may be disturbed by the works is the most appropriate mitigation and it is recommended that either a watching brief with provision for full excavation should archaeological remains be encountered, or a programme of strip, map and record be undertaken on the site works.

2.0 Project Aims & Objectives

The programme of works for the A55 Tal y Bont Flood Alleviation Scheme aimed to undertake a desk-based assessment and walkover survey of the proposed development area.

The first aim of the scheme of works was to undertake desk based historical research exploring the history of the site. This information included a map progression and archival research and a coherent narrative history of the site has been compiled.

The Gwynedd Historic Environment Record (HER), the Royal Commission of Ancient and Historical Monuments Wales (RCAHMW) database, Gwynedd Archives, Bangor University Archives and relevant publications have been consulted and a record of known archaeological sites in the vicinity has been compiled.

The second aim of this archaeological investigation was to undertake a walkover survey of the site to assess the survival of any above ground archaeological remains (i.e. earthworks and standing structures).

It is intended that this document be utilised to inform further archaeological mitigation and conditions at the site.

The objectives of this programme of works were:

- To make full and effective use of existing information to establish the archaeological significance of the site
- To assess the impact of the development proposals on surviving monuments or remains
- To help inform future decision making, design solutions and potential mitigation strategies

3.0 Scheme of Works - Methodology

The archaeological works were conducted in two sections and each is detailed separately below.

3.1 Desk Based Research

A complete and coherent history of the site was compiled utilising material sourced from local archives. Gwynedd Archives and the Bangor University Archives were both consulted. This allowed as comprehensive a history of the site as possible to be compiled. A full map progression of the area was undertaken. Where appropriate the archive information was supplemented with information from local libraries and specialist interest websites & journals.

In order to identify the character of archaeological remains in the vicinity of the site a search of the Gwynedd HER was conducted examining an area within a 1000m radius of the proposed works (centred on grid reference 260952 370011).

The RCAHMW database and aerial photographs of the site were also examined. The information collected will be discussed within the main report text.

The works were carried out 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 walkover survey.

3.2 Walkover Survey

A walkover survey of the proposed route of the works was undertaken by Matthew Jones of C.R Archaeology. This work consisted of:

- 1) The route of the proposed works was walked and an examination was made of all visible archaeological remains
- 2) A photographic record of the route was created showing the general character of the area. Detailed photographs with an appropriate scale were taken of all features of archaeological interest. The location of photographs taken was noted on the site plan. The measurements and location of any features were recorded on an annotated site plan and in notebook form.

The works were carried out accordance with the CIfA Standards and Guidance for historic environment desk-based assessment (CIfA 2014).

3.2.1 Equipment

The photographic record compiled during the walkover survey was undertaken using a 14.2 megapixel Sony A350 digital camera with a variety of standard and other lenses. Images were captured in RAW format for later processing into high resolution JPG and TIF files.

3.3 Timetable for Proposed Works

The walkover survey was undertaken on 2nd March 2015 and a day was allocated for this activity. A further six days have been allotted for archive research, report compilation and site archiving.

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.

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.

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

- Hi-visibility vests (EN471)
- Safety footwear – steel toecap and mid-sole boots and Wellingtons (EN345-47)
- Mobile Telephone
- Warm & waterproof clothing

All staff will have passed at least a CITB health and safety test at least operative level and will carry a Construction Related Organisation (CRO) White Card for Archaeological Technician (Code 5363).

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 desk-based assessment considers the following:

- the nature, extent and degree of survival of archaeological sites, structures, deposits and landscapes within the study area through the development of an archaeological deposit model. This deposit model should reflect accurately the state of current knowledge and provide a research agenda for further work if necessary
- the significance of any remains in their context both regionally and nationally
- the history of the site
- the potential impact of any proposed development on the setting of known sites of archaeological importance.

It is intended that this report will inform decisions as to the necessity and/or nature of any further archaeological mitigation strategies which may be required.

A copy of the report 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 to GAPS 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.

3.7.1 Copyright

C.R 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.

4.0 Geographical and Geological Context

4.1 Topography

The site traverses two minor roads and four parcels of agricultural land, mainly characterised by improved pasture. Field boundaries comprise a mixture of hedgerow, post and wire fencing, slate and wire fencing and stone walls. The scheme crosses gently sloping land with a north/north-westerly aspect, at approximately 50m OD.

4.2 Geology

The superficial geology of the site (at a scale of 1:50 000) is described 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. These rocks were formed in cold periods with Ice Age glaciers scouring the landscape and depositing moraines of till with outwash sand and gravel deposits from seasonal and post glacial meltwaters*”. The bedrock geology at the site is recorded as “*Nant Ffrancon Subgroup - Siltstone. Sedimentary Bedrock formed approximately 451 to 479 million years ago in the Ordovician Period. Local environment previously dominated by shallow seas. These rocks were formed in shallow seas with mainly siliciclastic sediments (comprising of fragments or clasts of silicate minerals) deposited as mud, silt, sand and gravel*” (www.bgs.ac.uk).

5.0 Historical Background

There are 20 sites of historical/archaeological interest recorded in the Gwynedd HER as lying within a 1000m search radius of the central point of the development. Nine of these sites have been assigned a post-Medieval date with two of the entries of unknown date also likely to belong to this later period. Although not lying within the search radius Rhiw Goch SAM and the multi-period site uncovered at Llandegai will also be discussed as it lies very close to the edge of the search area and given the general lack of archaeological works in the vicinity is relevant when examining archaeological potential. Additional Listed Buildings within the 1000m search area were identified using www.historicwales.gov.uk.

The locations of the sites discussed below are mapped on figure 3. Where records have a four figure grid reference they have not been included on the map but are discussed in the text.

5.1 Prehistoric

There is a single entry of prehistoric date recorded within the 1000m search radius of the site. PRN 3673 is a pebble macehead with a hour-glass perforation which was found on the right bank of the River Ogwen near Cochwillian, between Llandegai and Bethesda.

The RCAHMW inventory (1956) records that within the parish of Llanllechid there are 11 cairns and although these cairns are concentrated on the higher ground this is likely to be the result of preferential clearance of cultivatable land rather than a true distribution of monuments. Also recorded are a standing stone and burnt mound.

5.2 Roman & Romano-British

There are seven entries belonging to this period recorded in the HER. Due to the lack of excavation at the settlement sites which have been identified it must be acknowledged that although they have been attributed a Romano British date it is not unlikely that at least elements of these sites could have much earlier, possibly Bronze Age origins and could well have been utilised into the Early Medieval period. For ease of discussion they are included in this section.

A single Roman findspot is recorded within the search area. PRN 6890 is a very worn 2nd century AD coin (copper alloy) found in a garden at Penlan, Llandegai.

There is a single hut circle group recorded within the search area – PRN 2320 Tan y Marian. Tan y Marian is a Scheduled Ancient Monument (CN252). It is documented as “*three circular huts, with the less distinct walls of a more or less semi-circular structure adjoining the largest of them. A sunken track leads downhill for 25m in a NW direction, it is 6m wide at its narrowest part and flanked by a few orthostats. Two huts are contiguous, the third lie apart from them to the west, a massive curved wall 8m long and 2m thick fills the interval.*”

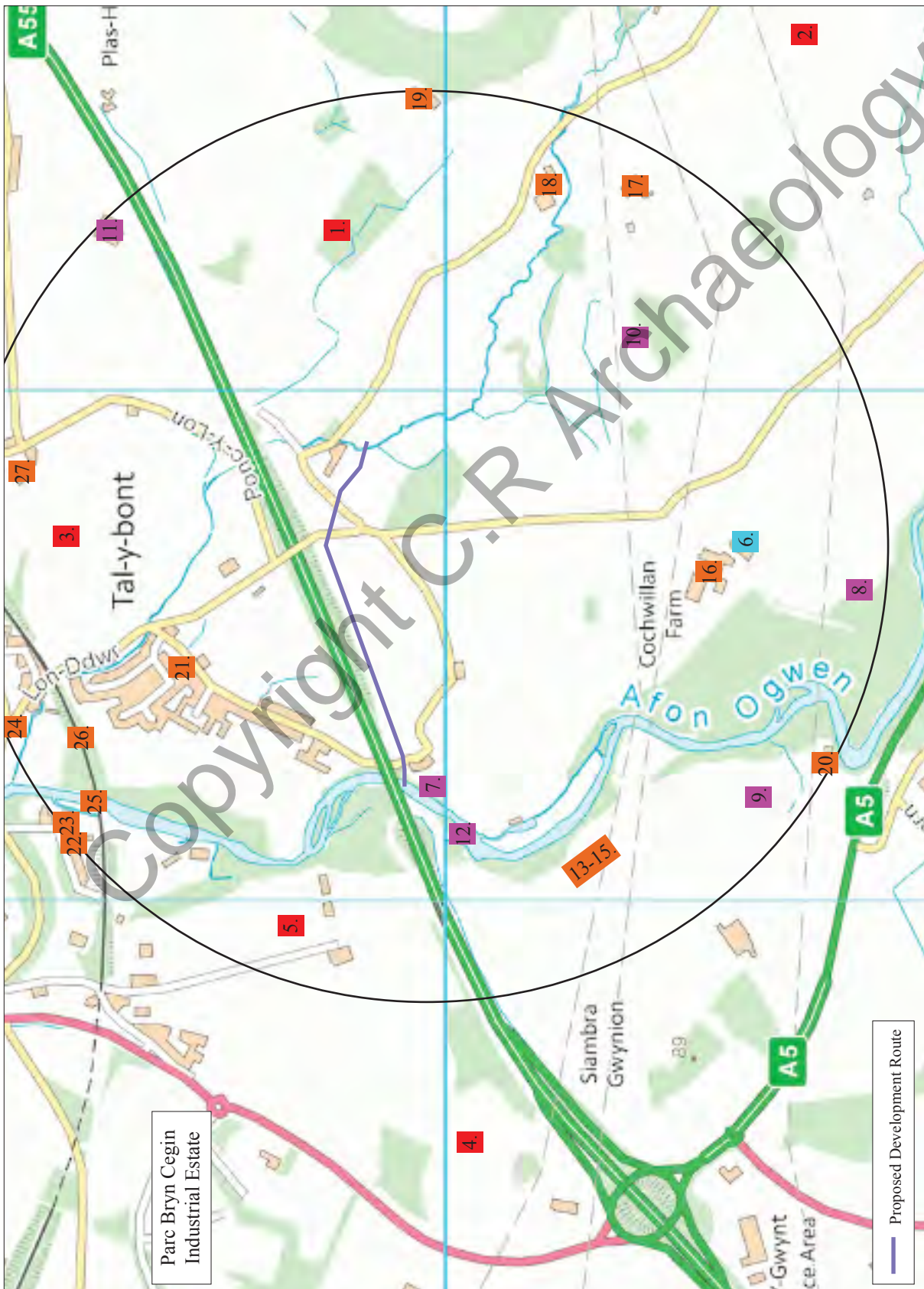
The walls of all the huts are 2m thick. The site is much overgrown and many orthostats have been removed to build the modern drystone wall.

Terraces about 30m to the SE of the hut group possibly represent remains of an early field system.

The settlement comprises 3 interlinked hut circles dating from the Iron Age/Romano British period. The huts are orthostatic in construction and are set around a sunken yard area which is approached by a clear trackway. Associated with the settlement are a number of terraces, which are likely to be the remains of a contemporary field system”.

Lying just outside the search area is the hut group of Rhiw Goch PRN 295. Rhiw Goch is a Scheduled Ancient Monument (CN056) and is recorded as “*hut group, enclosed, nearly circular, standing on a level terrace on a hillside. The wall was formed of two lines of upright stones with a*

Proposed Development Route



Proposed Development Route

1. Hut Group, Tan-y-Marian
2. Hut Group Rhiw Goch
3. Roman Fortlet, Tal-y-bont
4. Possible Roman Road
5. Possible Settlement N of Pen Lan
6. Cochwillan (House), Llandygai
7. Cochwillan Mill, Llandygai
8. Farmstead, Pen-cae, Coed Cochwillan
9. Lon-isaf Toll Gate and Building, Llandygai
10. Slate Quarry, Chwarel Las
11. Tal-y-bont Uchaf
12. Weir, N of Felin Cochwillan
- 13 - 15. Penryn Estate Cottages
16. Cochwillan Farm Buildings
17. Tyddyn-isaf & Tyddyn-isaf Bach
18. Pen-y-bryn
19. Tan-y-Marian
20. Walling and Depots on east side of former turnpike road
21. Capel Bethlehem
22. Tre-felin Cottages
23. Former Sawmill Manager's House
24. Ficardy
25. Railway Viaduct
26. Railway Viaduct
27. Eglwys St Cross

Figure 3. Archaeological Sites Within 1000m Radius of Proposed Development Area (Data Source: Gwynedd HER & www.historicwales.gov.uk)
(Map Source: OS Open Data Mapping. Contains Ordnance Survey data © Crown copyright and database right [2015])

filling of smaller stones and earth. The entrance may have been on the E, where a modern wall crosses the bank. One oval hut, with its long axis N-S, lies against the outer wall on the SW. A line of large stones within the enclosure appears to be the remains of a recent field wall. Traces of terracing exist in the surrounding fields, almost obliterated by modern ploughing. Class IV (bii): ? Post Roman”

The enclosure wall is now visible as a turf covered bank, 1.1m high containing much stone. There is no evidence to suggest that the line of stones within the enclosure is modern, otherwise the site is as described by RCAHM.

The enclosure is nearly circular in shape, with a diameter of 36m. There is a substantial enclosure wall circa 2.25m wide and 0.75m high of large facing stones with rubble centre. The remains of one oval hut 13 m by 1.6m lie in the SW corner of the enclosure. Another bank runs off NE from the corner of the hut. The site is crossed from W to E by a line of large stones, presumably the remains of a field boundary, probably of fairly recent origin. The site is also cut by a modern field bank running N-S, resulting in a small portion of the site on the E being isolated from the main part. Stone has been dumped on the E part of the site, covering over any original features. The site is covered with bracken and has seven thorn trees growing upon it”.

It would seem that remains of this date, which in North-West Wales are often stone built standing structures, were once more numerous within the counties of Llanllechid and Llandegai prior to extensive field clearance and the improvements in agricultural practices of the early nineteenth century. In his article “*Arvona Antiqua – Ancient Dwellings, or Cyttiau, Near Llanllechid*” the Reverend E. Owen laments the loss of the archaeology in the area and records numerous examples of hut groups being destroyed near Llanllechid and Llandegai and of the collection of quern stones in the area. He states “*there are various curious remains of an ancient people, such as circular, elliptical and rectangular enclosures, mounds, and carneddau still traceable along and on the confines of the crown lands in Caernarvonshire; but these relics of former ages are rapidly disappearing and before long, land clearers, or farm improvers, will have succeeded in sweeping them all away. It is to be deplored that accurate drawings and descriptions of such remains were not made some sixty years, before the building of innumerable boundary walls had commenced*” (Owen 1866: 215). There is however a slight positive note, which once more emphasises the number of these sites “*the work of the destruction has not been complete. The massiveness of numbers of these structures has preserved them from entire demolition*” (ibid).

The RCAHMS (1956: 134) also notes that the parish of Llanllechid contains numerous early hut settlements and the inventory records over sixty different sites of various sizes with and without associated field systems.

A further possible prehistoric settlement site (PRN 29434) is recorded as “*partial cropmarks visible in dry grassland showing rectangular ditched enclosure with pits within, alongside part of a larger rectangular enclosure. These appear to be linked to a long, curving linear feature which may be an old boundary or trackway. The cropmarks may represent the vestigial traces of a prehistoric settlement*”. To date this site has not been subject to any excavation or further analysis.

Three of the HER entries which have been assigned a Roman date (PRN 2453, 2456 & 2454) are associated with features identified on a 1968 aerial photograph taken of Bryn-derwas, above Tal y Bont. It appears that records 2453 & 2456 are duplicates and relate to an apparent right-angled corner in a field to the west of St. Cross Church whilst PRN 2454 is an apparent square which could be seen in the southern half of a field above Tal-y-Bont. These sites have been recorded as possible Roman fortlets although it is noted that a site visit was believed to have made and it was the opinion of the inspector that the earthwork was a field boundary and not defensive in nature. It is not

possible to further investigate these features as the area was landscaped following the building of the A55 Expressway.

PRN 5485 is a findspot of unknown date containing lead and bronze finds but unfortunately no further information is given and the location given is of four figures. It is however possible that this group of artefacts was of Romano-British date.

Although not within the 1000m search radius, part of the projected route of the Roman Road between Segontium and Canovium (PRN 17567) runs within 700m of the proposed development. It must however be acknowledged that the location given is approximate and the HER records that this spot is *"old lane in direct line between Ty Coch and Maes y Groes from Ogwen. Sites of the actual crossings have yet to be identified. Projected line only"*. This does however strongly indicate that there was a major Roman thoroughfare in the area.

5.3 Early Medieval/ Medieval

There is a single entry attributed a Medieval date – PRN 3670 Cochwillan House. The dwelling is recorded in the HER as *"purple shade of the Penrhyn slate, which reddens the soil. There are many historical associations tied up with the house. For successive centuries have the virtues of the occupants of Cochwillan been the theme of bardic song. The only portion of the house remaining is the dining room - which appears to have formed the N side of a quadrangle."*

Originally seat of Griffiths before Penrhyn acquired it. The original house probably occupied the same site but the portions remaining do not belong to a period earlier than late C15th. The walls are constructed of rubble masonry, older stonework is of remarkably good workmanship. The roof of the hall is of hammer-beam construction. The wall pieces, below hammer-beams supported on stone corbels, carved into the shape of heads.

A long awkward old building, one side as I suppose of what was once a quadrangle entered by an old gateway, still extant and very plain and mean.

Cochwillan was part of the Penrhyn lands and a house may have stood here as early as the C13th. The present building is however not earlier than 1450. The house consists now of a rectangular block, 62ft by 21ft, its axis roughly E-W, with a projecting chimney in the N wall. The walls are of rubble with gritstone dressings, the original walling, especially on the S being well built of large stones with spalls as filling. The slate roof is modern. The most striking remaining feature of the hall is the roof of three bays divided by trusses of hammer-beam type.

The building is as described in RCAHM. It is now in use as a barn, but is due to be restored by the Penrhyn Estate in the immediate future. Published survey 25" correct.

The house is now habitable and is inhabited by Frances Lynch.

In the winter of 1975 Cochwillan was visited by Cymdeithas Archaeoleg Llandegai a Llanllechid, the old barn had been restored as a house again.

Booklet giving history and description of Cochwillan has been produced. Shows the parts of the building restored in 1970.

Not before 1450, stone. Hall type. Hammer beam roof trusses. Timber framed partitions. Wide fireplace. Probably by W ap Gruffudd. H VII high Sheriff of Caerns".

The observations of Rev Owen outlined in the previous section are also of relevance to possible stone built Medieval structures which are often difficult to distinguish from the round house remains. It is likely that at least some of the cleared sites mentioned are of this date and we must therefore assume that these remains were also previously more numerous within the study area.

5.4 Post-Medieval/Modern

The remaining sites, which form the majority of the dated records for the area are from the Post-medieval period. The HER search results and Listed Building information are included in full in appendix b rather than being discussed individually within this text. Records from this period are predominantly related to farming, milling and mining practices, a pattern which is evident when the census records (1841 – 1911) are examined and agriculture and mining appear to be the dominant employers within the parish. The considerable influence of the Penrhyn Estate is strongly evident in the area with many of the houses within the villages of Tal-y-Bont and Llandegai designed by estate employees. Also recorded in the HER are two trackways (PRN 5477 & 5847) which are recorded in historical sources although the exact routes are unknown.

The records held in the HER are representative of the later history of the site and the GAT Historic Landscape Characterisation for the area around Llandegai and Tal-y-Bont states:

“Llandygai is a planned estate village constructed at the gates of Penrhyn Castle around Llandygai church. Engravings of the late eighteenth century show only the church, the rectory and Ty Mawr, the home of the Penrhyn agent, William Williams Llandygái. The bulk of the village was constructed in the first half of the nineteenth century, with some development on the periphery since then.

The estate influence is also apparent in the adjacent settlement at Tal y Bont, though social housing has been erected here since the war.

There are also a number of industrial structures, including the sites of a number of mills, and a smithy associated with the original Penrhyn Railway of 1801, which ran through the village.

The greater part of the two villages represent a polite reinterpretation of the vernacular tradition with many ornamental touches. These vary from the cottage dwellings near the church to the larger two storey houses with slate cladding on the upper floor, typical of late nineteenth century and Penrhyn and Vaynol estate architecture. The estate's influence is also apparent in the absence of a public house and of a nonconformist chapel.

A more specifically industrial type of housing, though still ornamental, is evident in the row Tai'r Felin” (www.heneb.co.uk/arfonnorth/arfon13.html).

5.5 Cartographic Evidence

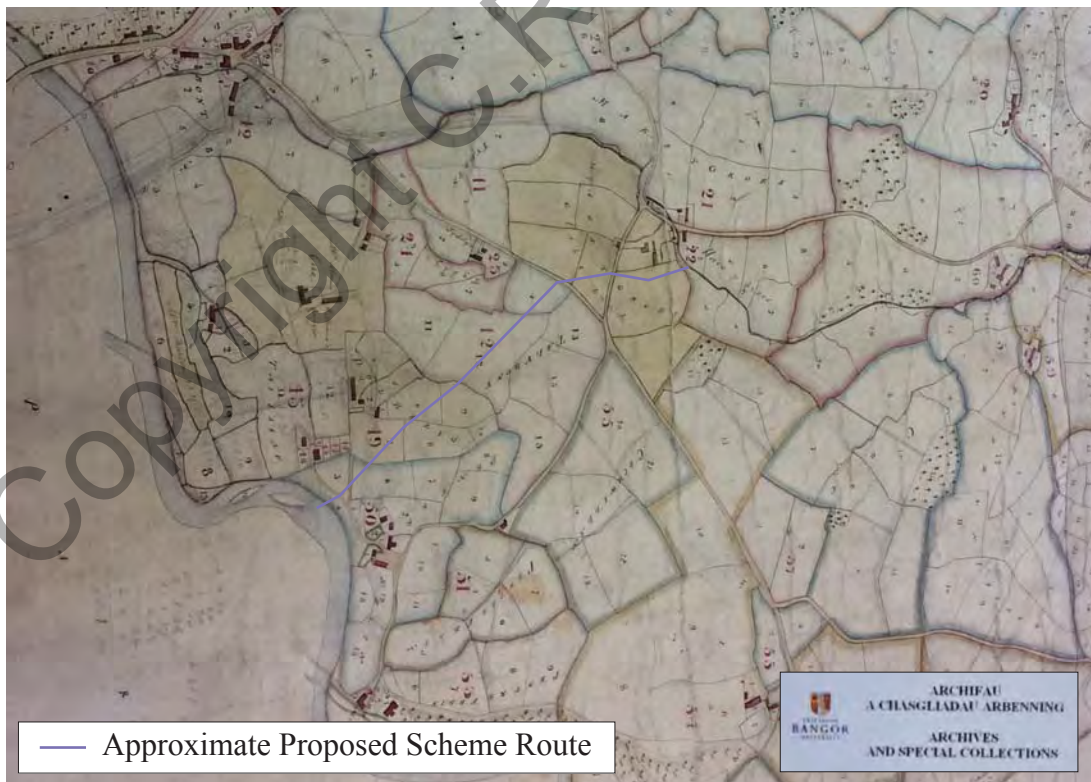
There are a number of historic cartographic sources for the study area which span from 1768 – 1948. This sequence shows that in the late 18th century there was a relict system of numerous small fields which are later removed to create large areas as part of a programme of agricultural improvement. The next major change which affects this area takes place 1981-1984 when the A55 Bangor Bypass is constructed which runs along the north-western site boundary.

5.5.1 Estate Map

The earliest map which could be sourced for the proposed development area was a Penrhyn Estate Map dated 1768. This document is included as figure 4 and shows that the land is parcelled off into much smaller units than survive today, a feature which is most evident in the plots which front onto the road. With the exception of the A55 the road network surrounding the proposed development site is largely established by this point. There does however appear to be a trackway running



Figure 4. 1768 Penrhyn Estate Map
 (Source: Bangor University Archives XM/Maps 3156/1)



— Approximate Proposed Scheme Route

Figure 5. 1798 Penrhyn Estate Map
 (Source: Bangor University Archives XM/Maps/6944)

roughly parallel to the river Ogwen which is not clear on later sources, although there is a route in this area shown on the Ordnance Survey mapping running from Pentre Felin to Tyddyn Cottages. Issues with the accuracy of this document have made locating the exact route of the proposed development problematic and the fields which it passes through are approximate. The land is in agricultural usage and the small irregular boundaries are believed to represent relict field systems which may well be of considerable antiquity.

Figure 5 is a Penrhyn Estate Map dated 1798. It is more detailed than the previous source and shows the beginnings of the amalgamation of the smaller field plots into larger units. The land occupied by the development is split between the farms/mills of Pentre Felin, Dolhelyg, Talybont and Maes y Groes and part of the Maes y Groes land is labelled as Glebe lands. The properties are now shown in detail and the accuracy of the map is greatly improved.

Individual field names are surviving for many of the affected plots although these are generally somewhat utilitarian in nature and are simple descriptions of the land. Beginning at the Aber Ogwen the names of the fields on the route are Buarth y Wern (the marsh yard), Cae Ty Du (black house field), Gors (marsh), Cae Gundwr?? (name unclear possibly something approximating foul water field?), Bryn (hill), Caer Groes Lon (field at the cross lane), Cae Pant (hollow/dip field), Cae Main (slim/narrow field). Cae Ty Du may possibly be of interest as an indication that there was previously a building/homestead on the land as there is no structure shown on the plot. There was a building in the neighbouring field which is gone by the production of the first edition Ordnance Survey map in 1889. It may also indicate remains of greater antiquity within the plot but this is unclear.

5.5.2 Tithe Map

Although a Tithe Map for the proposed development area was sourced the parish of Llanllechid is not a detailed return and the landscape shows only the blocks of the land under the ownership of the various estates and individual fields are not drawn. For this reason the document is not included.

5.5.3 Ordnance Survey Maps 1889-1948

The first edition Ordnance Survey Map shows the continuation of the removal of the field boundaries to create ever larger units of land. These field boundaries remain unchanged throughout the map sequence (figures 6 – 9) up until 1948. A sheepfold is noted on the first edition (1889) which may be located within Plot 3, although the exact position of this feature is unclear.

5.5.4 Later Changes

In 1981 works began on the A55 Bangor Bypass and the route of this road is shown on figure 10. The proposed development will run along the side of this road.

The RCAHMS holds a series of aerial photographs of the area dated from 1947 – 2005. An examination of aerial photographs of the site showed that although the current field boundaries are drawn on the historic Ordnance Survey maps the majority of the internal boundaries shown on the 1948 map have been removed. They are however visible from the air and can be viewed on Google Earth. These boundaries are removed by the taking of the 1984 aerial photograph, although the removal appears relatively fresh in this photograph - which would tie in with the splitting of the field by the A55. No other features were noted within the proposed development area from aerial photographs taken before or after the creation of the A55.

It is unclear the exact level of damage to the proposed development area that the construction of the A55 has caused. It is thought to be minimal as the road has been cut down, and the visibility of old field boundaries on aerial photographs suggests that the neighbouring land is unaffected. Comparing the positions of trees shown on the 1947/48 aerial photographs with those currently

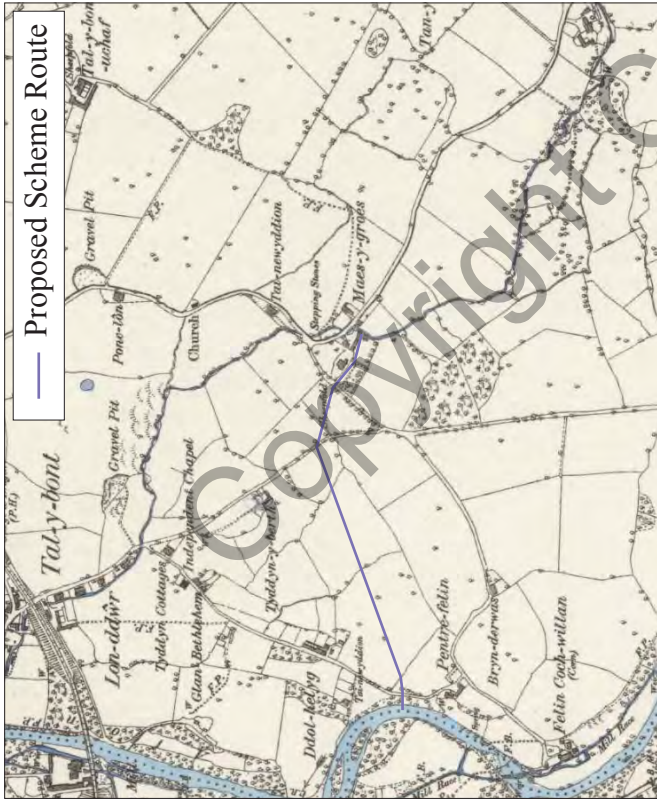


Figure 6. Ordnance Survey Map of Study Area
(Surveyed 1887, Published 1889)



Figure 7. Ordnance Survey Map of Study Area
(Revised 1889, Published 1901)

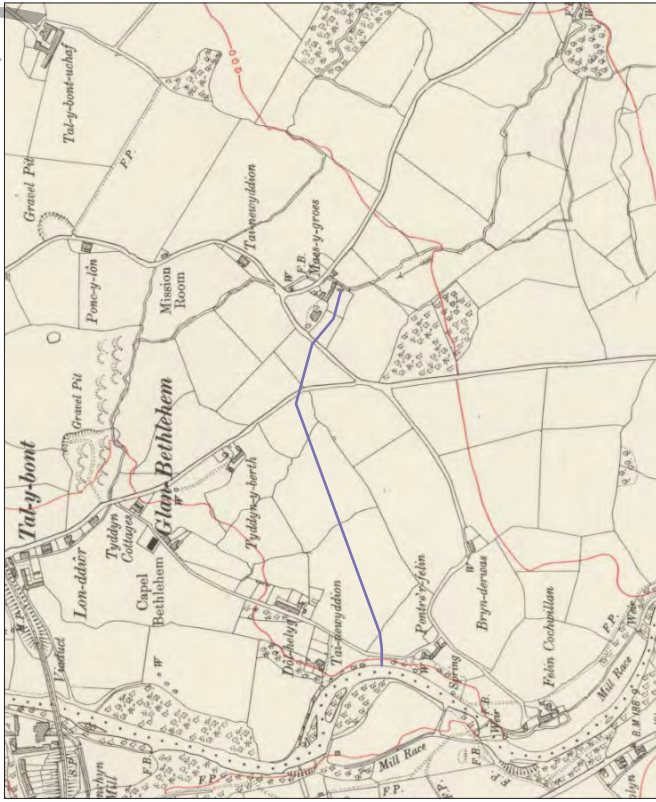


Figure 8. Ordnance Survey Map of Study Area
(Revised 1913, Published 1920)

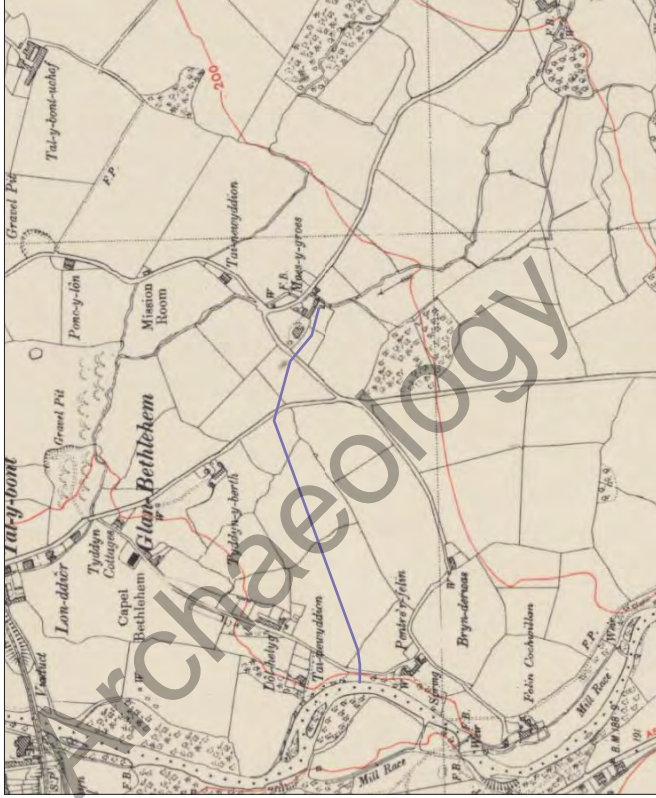
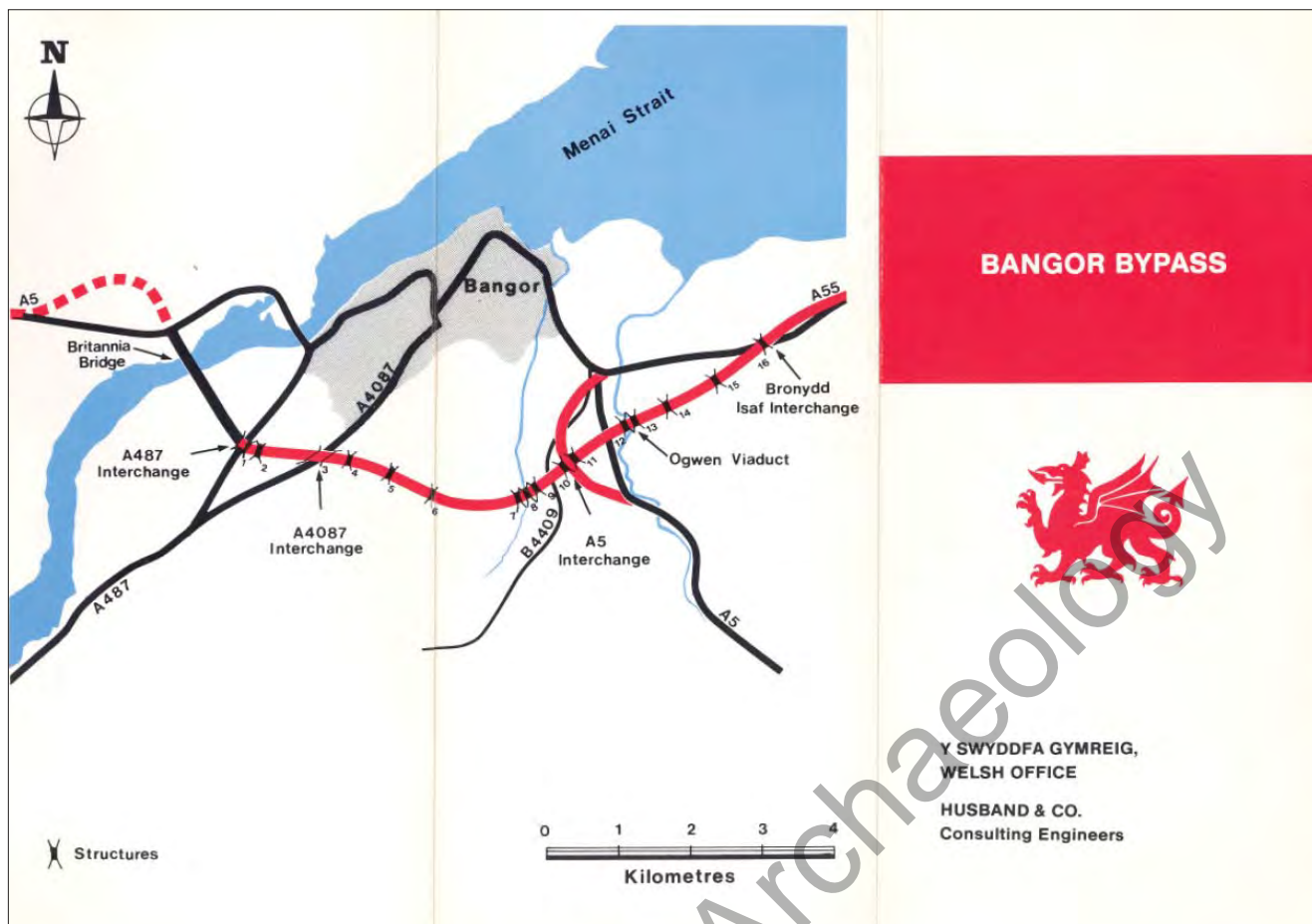


Figure 9. Ordnance Survey Map of Study Area
(Revised 1938, Published 1948)



Contract Details

CLIENT Welsh Office,
Transport & Highways
Group,
Cardiff.

Director: D.A.R. Hall

**CONSULTING
ENGINEERS** Husband & Co.
Bangor, Sheffield,
London, Southampton.

**Chief Resident
Engineer:** C.D. Easterbrook

CONTRACTOR Norwest Holst
Civil Engineering Limited,
Liverpool.

**Project
Director:** S. Jessop

Tender Sum: £17.27m
Length: 9.8km Bypass
2.7 km A5 Link
**Total number
of Bridges:** 12
**Contract
Period:** 2½ years
(August 1981 – February 1984)

ROADWORKS

Bypass: Dual 7.3m carriageway
120 kph design speed
Full grade separation
A5 Link: 7.3m single carriageway
100 kph design speed
Pavement: Flexible construction
Earthworks: Topsoil excavation: 92,000 m³
Rock excavation: 542,000 m³
Soft material
excavation: 1,100,000 m³
Fill to
embankments: 1,158,000 m³

INTERCHANGES

- 1) A487 Bypass over with link roads
- 2) A4087 Bypass over with link roads
- 3) A5 Bypass under new roundabout
- 4) Bronydd Isaf Local road over bypass

ENVIRONMENTAL

**Number of
properties
insulated** 24
**Landscaping
Areas** Additional topsoil: 26,000 m³
Additional fill
for mounding: 140,000 m³

STRUCTURES

12 Bridges in reinforced/prestressed concrete

2 Culverts

2 Agricultural Underpasses

- 1) A487 Single span pretensioned beam underbridge
- 2) Penrhos Road 3 span insitu post tensioned overbridge
- 3) A4087 Single span insitu post tensioned underbridge
- 4) Cytir Lane Single span pretensioned beam underbridge
- 5) Perfeddgoed Underpass Reinforced concrete box
- 6) Pentir Road 3 span insitu post tensioned overbridge
- 7) Glasinfryn Road Single span pretensioned beam underbridge
- 8) Afon Cegin Culvert Reinforced concrete box
- 9) Coed Hywel Underpass Reinforced concrete box
- 10) A5 Inter-change West Single span pretensioned beam overbridge
- 11) A5 Inter-change East Single span pretensioned beam overbridge
- 12) Ogwen Mill Race Culvert Armco culvert
- 13) Ogwen Viaduct 5 span insitu post tensioned viaduct
- 14) Tal-y-bont 3 span insitu post tensioned overbridge
- 15) Plas Hwfa Single span insitu post tensioned overbridge
- 16) Bronydd Isaf Single span insitu post tensioned overbridge

Quantities Concrete: 24,500 m³
Reinforcement: 2,400 tonnes

Figure 10. Leaflet Detailing the Works Undertaken for the A55 Bangor Bypass
(Source: www.nmwtra.org.uk/uploads/media/Bangor_Bypass_03.pdf)

visible on the ground using Google Maps shows that they have not been disturbed and no evidence of the site having been used as a compound etc was noted on the 1984 aerial photograph although this is not in itself conclusive evidence that no disturbance at all took place.

5.6 Additional Comments on the Archaeology of the Area

Although lying very slightly outside the 1000m radius of the proposed development area, given the lack of archaeological investigations in the vicinity and the significance of the remains found, the findings at the Parc Bryn Cegin/Llandegai Industrial Estate must also be considered as they highlight the richness of the archaeological record nearby.

The archaeological potential of the area on which the Llandegai Industrial Estate was built in the late 1960's was initially recognised from aerial photographs which revealed 2 henges, a cursus and other minor monuments. Excavations prior to the construction works explored approximately 10% of a 15.3 hectare field and activity dating from the Mesolithic to the Early Medieval period was identified. Principle discoveries are listed as *“evidence of a rectangular timber post-built house dated to the Early Neolithic and a complex of Late Neolithic ritual monuments. These comprised a henge with a single entrance, constructed c. 3100 cal BC, within which was found Peterborough ware and an axe of Langdale stone. A contemporary cremation circle lay at the entrance. A second henge with a double entrance (terminus ante quem 2700 cal BC) enclosed two cremation burials and several other pits containing Late Neolithic and Beaker Pottery (2300 – 1800 cal BC). A short narrow cursus dated to c. 2600 cal BC lay between the two henges but there were no finds to confirm the date or explain its role. Beyond the west end of the cursus lay a small hengiform monument which produced no finds. Further to the west was a large ditched enclosure. A small barrow of Early Bronze Age date was enlarged twice, the final stage covering a cremation and a Food Vessel. In the Late Bronze Age (c. 1100 cal BC) an informal hearth was built in the ditch of Henge B and at this later period at Henge A a more significant settlement was established with at least two round wooden houses and several 4-post structures. At the end of the 1st century AD there was some short-lived activity just outside the entrance of Henge A. In the Early Medieval period (5-7th centuries AD) a cemetery of more than 57 graves, with an enclosed grave in the SE end, was established over the area of the cursus”* (Lynch & Musson 2001: 17).

In light of the finds at Llandegai Industrial Estate when the adjoining site of Parc Bryn Cegin site was developed in 2005 archaeological conditions were placed on the site and the Gwynedd Archaeological Trust investigated approximately 23 hectares of the 35 hectare development. These further works revealed features dating from the Early Neolithic to the Medieval period which were overlain by 18th and 19th century field boundaries. *“The most significant discovery was the remains of an Early Neolithic rectangular timber building. It was well preserved with numerous related features and assemblages of artefacts and charred plant remains. This structure was radiocarbon dated to between 3760-3700 cal BC and 3670 – 3620 cal BC.*

There were several clusters of Mid to Late Neolithic pits, which contained a large assemblage of pottery and other artefacts. Sixteen burnt mounds were found, some very well preserved, dating from the Neolithic and Bronze Age. The remains of a Mid Iron Age ring-groove roundhouse were found overlain by Early Medieval smithing activity. A Late Iron Age/Romano-British settlement was almost completely excavated and the associated finds included a Roman seal box and evidence for glass bead making. A large cache of glass beads dating from the Roman period was probably related to the settlement despite being found some distance from it. Full Medieval activity was represented only by a corn drier, but the Post Medieval field system could be traced in surviving ditches” (Kenney 2007: 3).

In 2009 prior to further development at the Llandegai Estate further trial trenching was undertaken which established that the Neolithic cursus monument and Early Medieval cemetery identified during the 1966-7 excavation had survived at least in part where there had been no construction works undertaken but no new features were identified (Rees 2009: 2).

6.0 Results of Walkover Survey (See Figure 11)

The walkover survey began on Dol Helyg road near Felin Coch Willan and the route was walked from west - east. Looking west from the starting point towards the Ogwen river (plate 1) the area has been developed in conjunction with the building of the A55, particularly the construction of the Ogwen Viaduct. Looking south up the Dol Helyg road the wall on the east marks the beginning of development route across agricultural land. The wall looks to have been recently rebuilt and was bonded with concrete (plates 2 - 3).

The proposed development is divided into 4 plots (see figure 11) and each is described below. Plate numbers have been added to this figure.

Plot 1

The first field is of an irregular shaped plot and the development runs along the northern edge opposite the A55. The field raises steeply from the road side wall where it levels to a gradual slope towards its eastern boundary wall (plates 4 – 5). The break of slope has some undulation and unevenness but it does not appear to make a coherent shape.

The eastern boundary wall (SH 60333 70114) has collapsed and has been replaced by a post and wire fence (plate 6). The old wall had been constructed using large and medium boulders with a clay and stone core (plate 7). There are some large mature trees growing along the edge or within the wall core.

Plot 2

Plot 2 is a large sub rectangular field which slopes towards the A55. The gradual slope observed in plot 1 continues for 60 meters (plate 8), at which point the field flattens out.

On the western side of the boundary wall between plots 1 & 2 five regular undulations (plate 9) approximately 1.5m apart were identified. These features could possibly be remnants of ridge and furrow or possible archaeological features although it is also plausible, given their close proximity to the road, that they could have been a result of groundworks associated with the A55.

Plot 2 continues at level until you reach a marshy area (plate 10) which is fed by a spring further to the south of the field (plate 11). The level ground continues to the field boundary (plate 12) and no further features were noted along the proposed development route. The field boundary between plots 2 & 3 has been replaced by a wooden fence (plate 13) although a ruined stretch of walling does remain. Plate 14 shows an area of this wall and, as in the neighbouring plot, it is faced with large boulders, has a clay and stone fill and a hedge growing along it.

Outside of the development area but still within plot 2 clearance cairn was noted (plate 15) at SH 60408 70030. This is likely to be the remains of a removed boundary wall. There was also a large amount of stone noted around the trees (plate 16) within the field. It is unclear as to the origin of this stone.

There is a marshy area at the base of a shallow flat area (SH 60628 70159) and some large stones were seen within the reeds, although again it is unclear as to the origin of the stone.

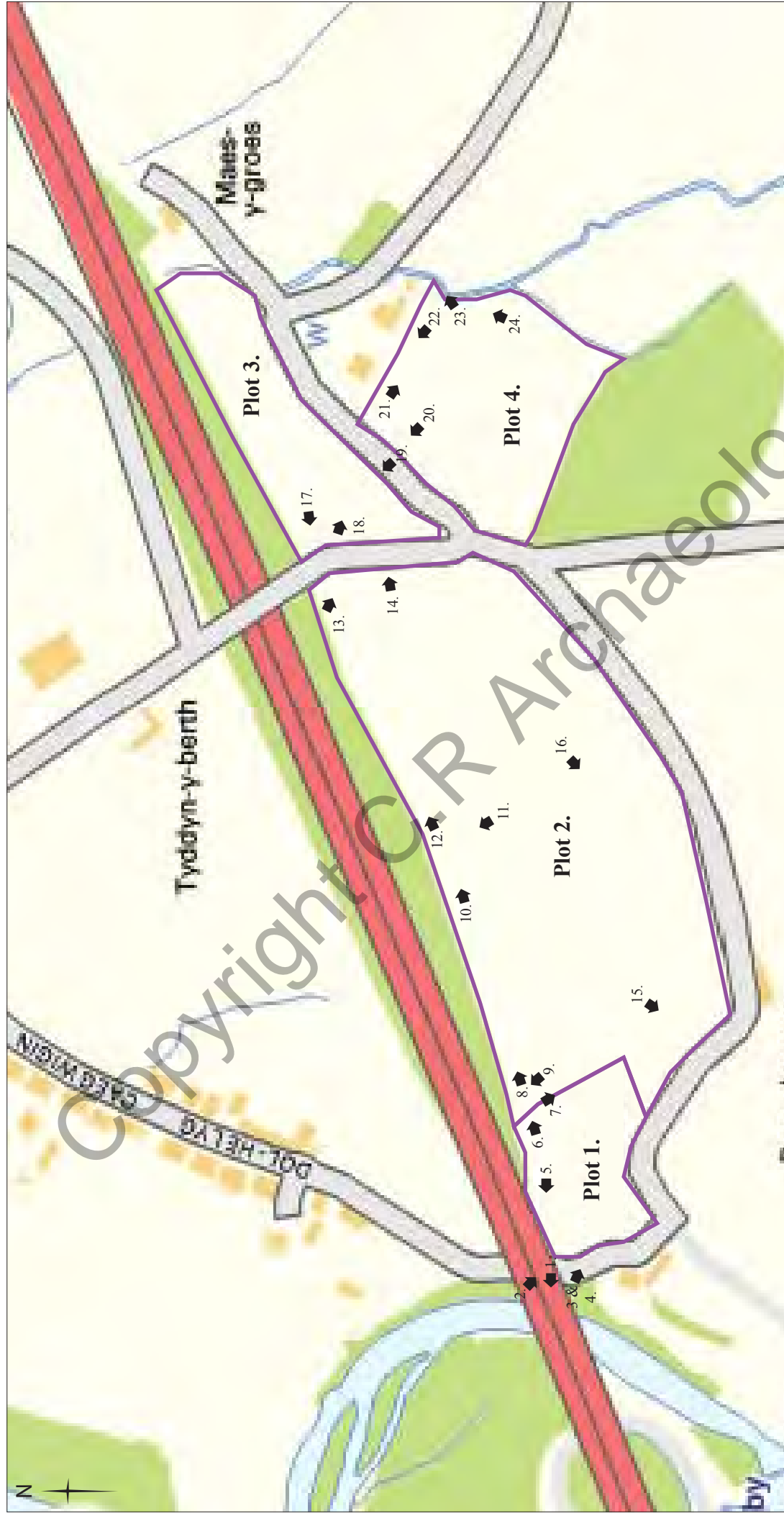


Figure 11. Location and Direction of Photographic Plates

(Source: OS Open Data Mapping. Contains Ordnance Survey data © Crown copyright and database right [2015])



Plate 1. Start Point of Proposed Development
Showing Ogwen River & Viaduct



Plate 2. South Facing View up the Dol Helyg Road



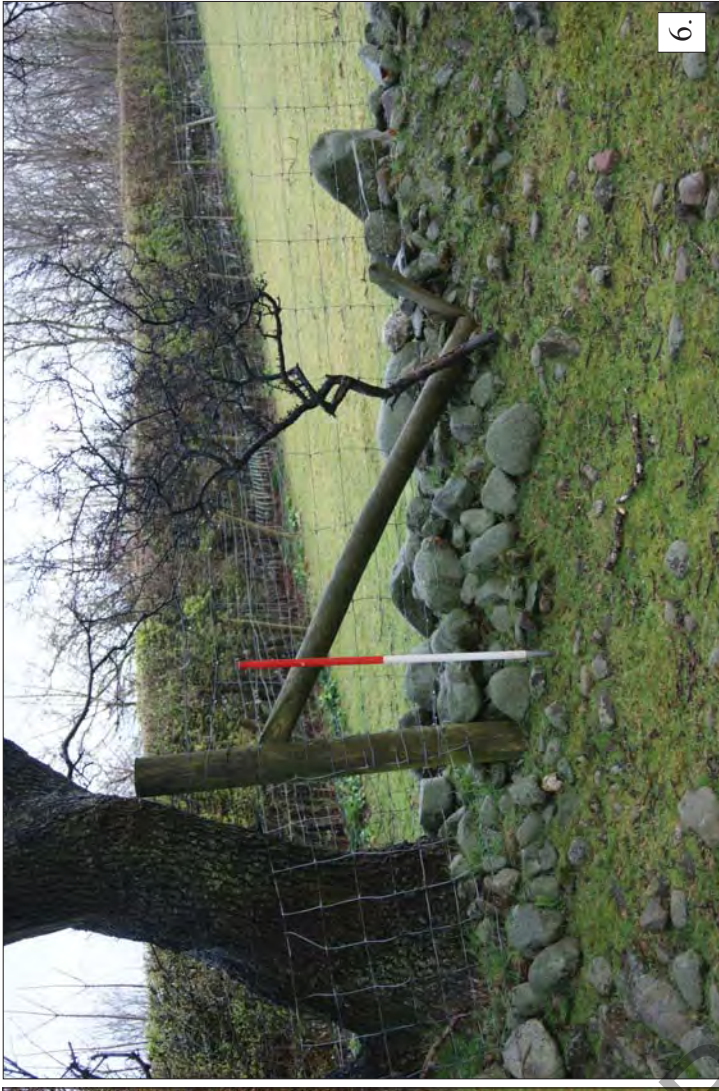
Plate 3. Rebuilt Stone Field Boundary



Plate 4. Plot 1 Facing East



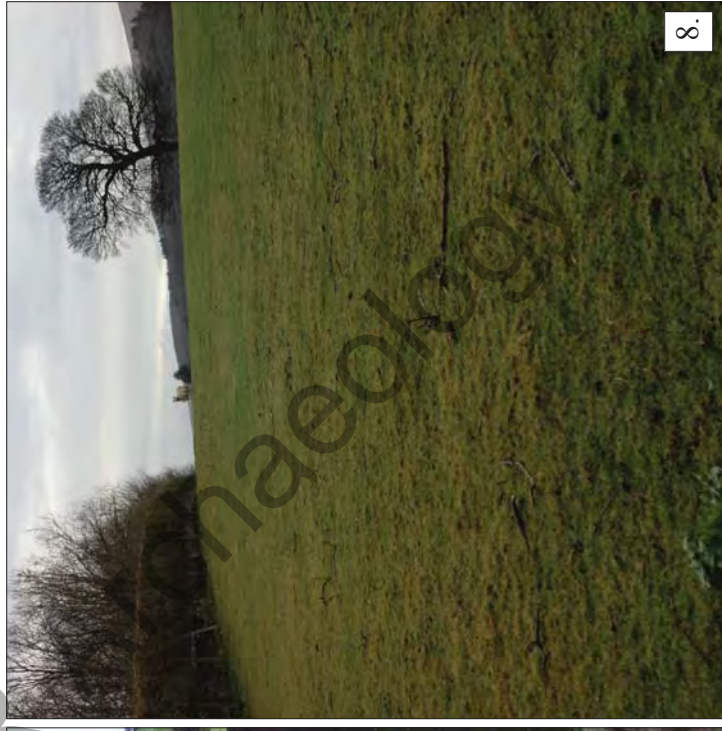
5.



6.



7.



8.

Plate 5. Plot 1
Facing West

Plate 6. Boundary
Between Plots 1 & 2

Plate 7. Boundary
Between Plots 1 & 2

Plate 8. Plot 2
Facing East



Plate 9. Undulations in Plot 2 Facing North-East



Plate 10. Plot 2 Facing East Along Development Line Showing Marsh Area



Plate 11. Plot 2 Showing Marsh Area Facing North



Plate 12. Plot 2 Facing East Along Development Line



Plate 13. Modern Replacement Fencing and
Remains of Previous Field Boundary in Plot 2



Plate 14. Modern Replacement Fencing and
Remains of Previous Field Boundary in Plot 2



Plate 15. Plot 2 Clearance Cairn



Plate 16. Plot 2 Large Boulders Around Tree

Between the A55 and the northern boundary of both fields there is a large open concrete culvert. It is unclear how much disturbance this caused to the field northern boundary.

Plate 17 shows the lane which must be crossed to access plot 3.

Plot 3

Following the construction of the A55 plot 3 has become a long thin sub-rectangular field with a triangular point at its south-western corner. This plot was overgrown with scrub grass which was damp underfoot (plate 18). The boundary at its south-eastern end was constructed from a stone faced base with clay fill and slate fencing in-bedded on top which was held together by wire (plates 19 & 20). A lane is crossed to gain access into plot 4.

Plot 4

Plot 4 was a small squarish field with lanes to the north and west, a wooded area to the south and Maes Y Groes house to the east. The north-western boundary with the lane is slate and wire fencing behind a hedge (plate 20). The proposed development will head south-east (plates 21 - 23) and will run along the eastern boundary of Maes Y Groes towards a river at the eastern end of the field. The field raises towards the south-west forming a flat topped hill. Some large medium stones were noted protruding from the top of this raise. The development will cross the river (plate 24) where a large bund will be built along the river edge SH 60906 70156.

7.0 Discussion of Archaeological Potential

The results of the DBA and walkover survey have highlighted that the development is considered to be of moderate – high archaeological potential and should remains be encountered the remains could be of moderate – high significance. On the nearest excavation which has been undertaken significant remains have been encountered from the Early Neolithic – Medieval periods although it must be noted that the site was initially excavated due to very obvious crop marks which are not present within the development area. There were however also remains such as the hut circles and burnt mound which did not show up on aerial photography and the lack of cropmarks in no way precludes the survival of archaeological remains on the site.

7.1.1 Potential for Prehistoric & Romano-British Remains

The location of the proposed development site on an area of fertile agricultural land in close proximity to rivers within an area of known Prehistoric activity would indicate that there is a strong likelihood that certain types of monument may be encountered.

Burnt mounds are known to favour locations near water sources and the landscape setting would be considered favourable for Early Neolithic houses which are generally set on gravel terraces besides rivers or on hillslopes and most are within sight of or directly overlook a watercourse (Darvill 1996: 85). There were found to be two separate house structures found at Llandegai Industrial Estate and Parc Bryn Cegin and should such a structure be encountered during works at this site it would be considered of national importance.

Llanllechid is noted for the numerous hut circles which are found throughout the parish, and two such groups (both of which are Scheduled Ancient Monuments) are found within a 1300m of the development site. There is a large amount of stone found on the site and although much of it is likely to be the remains of Post-Medieval field boundaries there very much remains the possibility that it was previously robbed from stone built settlements of Prehistoric/Romano-British date. Such settlements would also favour the good agricultural land and riverine location noted for Early Neolithic houses. Although these structures are well represented in the archaeological repertoire for the area there are relatively few of these groups which have been subjected to modern excavation and thus should such a structure be encountered it is considered to be of high archaeological



Plate 17. Lane Between Plots 2 & 3



Plate 18. Plot 3 Facing South-East



Plate 19. Slate Field Boundary Plot 3

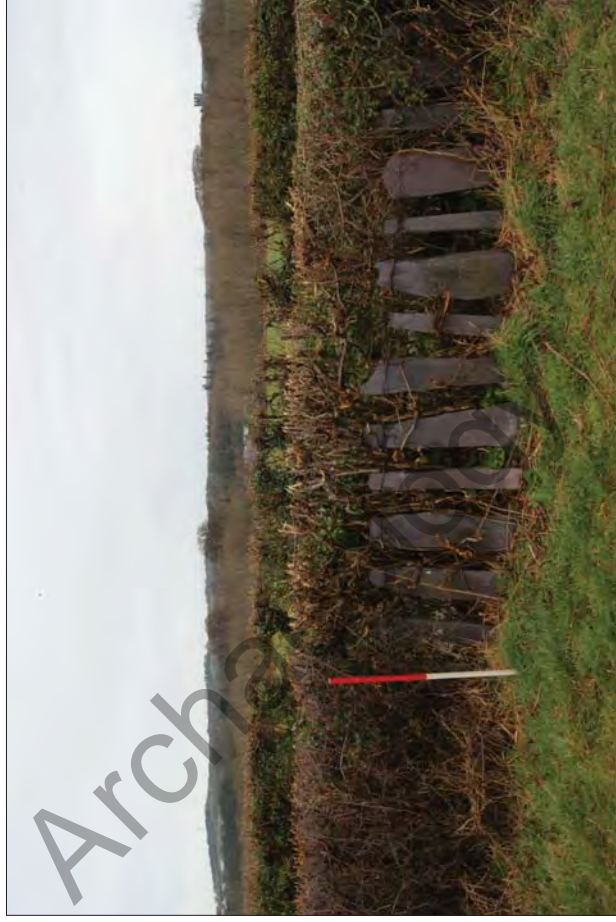
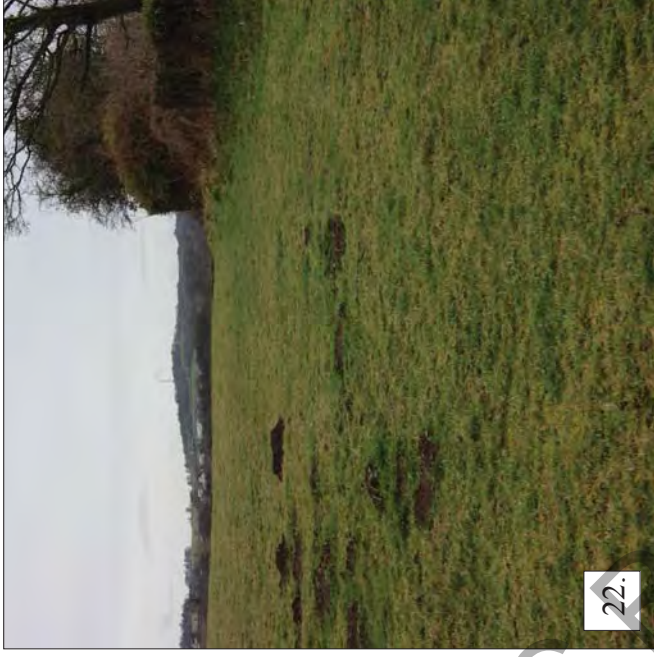


Plate 20. Slate Field Boundary Plot 3



21.



22.

Plate 21. Plot 4 Facing
South-East

Plate 22. Plot 4 Facing
North-West



23.



24.

Plate 23. River in Plot 4

Plate 24. River in Plot 4

significance. The Segontium to Canovium Roman Road is believed to have been located within the vicinity of the development with a possible stretch within 700m of the site.

It is considered that the potential of remains from the Prehistoric/Romano-British periods surviving within the proposed development area is moderate – high and the significance of such remains would be moderate – high. It is also considered highly likely that stray single finds could be encountered which due to the lack of context would be of moderate significance.

7.1.2 Potential for Medieval Remains

As mentioned in previous sections the potential for stone built Early Medieval/Medieval structures within the proposed development area is considered to be on a par with those of Prehistoric date as the two tend to favour similar locations and in the absence of excavation the remains from both periods are often indistinguishable. It is also possible that some of the smaller landscape divisions evident on the 1768 & 1798 Penrhyn Estate maps have a Medieval or earlier origin. The large Early Medieval cemetery at Llandegai would indicate that there is a reasonable size population living in the proximity although we cannot be certain as to the exact location of the associated homesteads.

It is considered that the potential of remains from the Early Medieval/Medieval periods surviving within the proposed development area is moderate – high and the significance of such remains would be moderate – high, as one more there are relatively few well excavated and dated sites of this type.

7.1.3 Potential for Post-Medieval Remains

Cartographic sources attest to agricultural usage of the proposed development area during the Post-Medieval period with improvements in farming techniques during the 18th and 19th centuries resulting in the favouring of larger land parcels and the removal of many of the older field boundaries. There are no agricultural buildings directly affected by the route and although it will run to the south-west of Maes y Groes farm although it will be largely screened by trees. There is a sheep fold recorded on Ordnance Survey mapping in the vicinity of plot 3 although the exact location is unclear.

The current field boundaries, although located in the same position as shown on early pictorial sources are almost all modern replacements.

The proposed scheme will encounter field boundaries and agricultural related remains from this period. The significance of such remains is however considered to be low.

7.2 The Significance of the Development Site

The results of the DBA and walkover survey have highlighted that the development area is considered to be of moderate – high archaeological potential and should remains be encountered the remains could be of moderate – high significance. On the nearest excavation which has been undertaken significant remains have been encountered from the Early Neolithic – Medieval periods although it must be noted that the site was initially excavated due to very obvious crop marks which are not present within the development area. There were however also remains such as the hut circles and burnt mound which did not show up on aerial photography so the lack of this evidence in no way precludes the survival of archaeological remains on the site.

This site is also considered to be of importance in furthering our knowledge of the archaeological potential of the area as to date there has been very little work undertaken on the land to the east of the Afon Ogwen.

It is unclear as to the impact of the construction of the A55 and Ogwen Viaduct on the proposed development area. It is believed on balance that although there may be some damage the survival of field boundaries shown on the first edition Ordnance Survey map on aerial photographs would indicate that there is little disturbance in this area.

7.3 Impact of the Development on Known Surviving Monuments & Designated Sites/Areas

There is a single Scheduled Ancient Monument and 34 listed buildings within a 1000m radius of the proposed development site. However none are within the development area and any impact will therefore be of a limited visual nature.

The scheme is located within the Dyffryn Ogwen Registered Landscape of Outstanding Historic Interest, recognised for its dual significance as containing extensive prehistoric remains and for the influence and remains associated with the post-medieval to modern slate industry (www.cadw.gov.wales). There are no visible or known prehistoric remains within the proposed development area, and there are no visible workings associated with the slate industry and none were noted on historic source material. There are however remnants of slate and wire fencing noted in plots 3 & 4 which is characteristic of the area and it is noted as a favoured style of the Penrhyn Estate (Evans 2009: 6). Consideration should therefore be given to the possibility of retaining and re-erecting these boundary remnants as they are in-keeping with the historic landscape character.

The siting of the A55 in its current location has drastically altered the landscape around the development site and the scheme will not be visible from any of the listed buildings which are situated on the northern side of the road due to the screen of trees and the road itself.

The closest Listed Building to the proposed scheme is Cochwillan Mill, the setting of which has been negatively impacted by the construction of the A55 and associated Ogwen Viaduct. Given the screening provided by trees, the low lying nature of the scheme and the proximity of the proposed swale to the A55 it is felt that if there is any impact on the Listed Building it is negligible.

The factors noted above all mitigate the impact of the development on the other designated sites/the Historic Landscape in the vicinity and it is the opinion of the author that there will be either no impact what so ever on surrounding sites or a very small visual impact which will be somewhat dwarfed by the considerable impact of the A55.

There are known Post-Medieval field boundaries which will be damaged by the proposed development. However these boundaries are largely modern replacements along the line of previous divisions and the significance of the monuments themselves is considered low.

7.4 Potential Mitigation/ Further Evaluation Strategies

The proposed development site is considered to be of moderate – high archaeological potential and should remains be encountered the remains could be of moderate – high significance. It is therefore felt that mitigation is required to protect the archaeological resource. In this instance, given that the scheme does not require a planning application as it is a permitted development through improvements to highways using adjacent land, it is felt that preservation by record of any archaeological remains which may be disturbed by the works is the most appropriate mitigation.

With this in mind it is recommended that either a watching brief with provision for full excavation should archaeological remains be encountered or a programme of strip, map and record be undertaken on the site works.

There are known Post-Medieval field boundaries which will be damaged by the proposed development. However these boundaries are largely modern replacements along the line of previous divisions and the significance of the monuments themselves is considered low. The recording of

break-through points and the reinstatement where possible using historic construction methods would be considered adequate mitigation in this instance.

8.0 Conclusion

There is a single Scheduled Ancient Monument and 34 Listed Buildings within a 1000m radius of the proposed development area. It is also located within the Dyffryn Ogwen Registered Landscape of Outstanding Historic Interest.

The results of the DBA and walkover survey have highlighted that the proposed development area is considered to be of moderate – high archaeological potential and should remains be encountered the remains could be of moderate – high significance. On the nearest large area excavation which has been undertaken significant remains have been encountered from the Early Neolithic – Medieval period and, although it must be noted that the site was initially excavated due to very obvious crop marks which are not present within the development area, there were remains such as hut circles and a burnt mound which did not show up on aerial photography found during the works.

This site is also considered to be of importance in furthering our knowledge of the archaeological potential of the area as to date there has been very little work undertaken on the land to the east of the Afon Ogwen.

It is felt that mitigation is required to protect the archaeological resource. In this instance, given that the scheme does not require a planning application as it is a permitted development through improvements to highways using adjacent land, it is felt that preservation by record of any archaeological remains which may be disturbed by the works is the most appropriate mitigation. With this in mind it is recommended that either a watching brief with provision for full excavation should archaeological remains be encountered or a programme of strip, map and record be undertaken on the site works.

9.0 Bibliography

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http://cadw.gov.wales/docs/cadw/publications/LandscapesRegisterGoodPractice_EN.pdf

www.coflein.gov.uk/

www.heneb.co.uk/arfonnorth/arfon13.html

www.historicwales.gov.uk

www.maps.nls.uk/

www.nmwtra.org.uk/uploads/media/Bangor_Bypass_03.pdf

www.ordnancesurvey.co.uk

Google Earth app used to view landscape from above

Archive Material

Bangor University Archives

XM/Maps 3156/1 1768 Penrhyn Estate Map

XM/Maps/ 6944 1798 Penrhyn Estate Map

1841 Tithe Map for Llanllechid

Ordnance Survey Maps 1889 - 1948

RCAHMW

Aerial Photographs

CPE/U.K/1996.13 APR.47 F20//MULTI4.16.400 585 QDN

541/38.21.5.48 F20//16.60

ZEISS 406 12" 7800 29th April 1984

Appendix A.

CR92-2015 Specification for Archaeological Works

Copyright C.R Archaeology

Specification for Archaeological Assessment at

A55 Tal y Bont Flood Alleviation Scheme

NGR 260952 370011

Report Number CR92-2015

Copyright C.R Archaeology



C.R Archaeology
Compiled by C.Rees
on Behalf of Gwynedd County Council

Copyright C.R Archaeology

Specification for Archaeological Assessment at A55 Tal y Bont Flood Alleviation Scheme

Planning Application Number:

Pre-planning

National Grid Reference:

260952 370011

Client:

Gwynedd County Council

Report Authors:

C. Rees

Report Number:

CR92-2015

Date:

05/03/2015

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4.7 The Report

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Figure 2. Proposed Works at A55 Tal y Bont Flood Alleviation Scheme

1.0 Introduction

C.R Archaeology have been instructed by Gwynedd County Council to conduct an archaeological assessment for the A55 Tal y Bont Flood Alleviation Scheme (Figure 1). For the purposes of this specification the site is defined as set out in the “Design Brief for Archaeological Assessment and Evaluation” (GAPS 2014). It comprises the route of a proposed swale to be constructed as a flood alleviation scheme for the village of Tal y Bont, Gwynedd, and the nearby section of the A55 dual carriageway, together with all associated works. The proposed scheme is located to the south of the village, between the A55 and the northern boundary of the Snowdonia National Park. The scheme extends for approximately 720m from its eastern terminus at an unnamed tributary of the Afon Ogwen, curving gently to the north and terminating at the Afon Ogwen, where it is crossed by the A55. The anticipated width of the scheme varies from approximately 15m to approximately 65m. The site traverses two minor roads and four parcels of agricultural land, mainly characterised by improved pasture. Field boundaries comprise a mixture of hedgerow, post and wire fencing, slate and wire fencing and stone walls. Figure 2 details the proposed works.

This specification has been written with reference to the “Design Brief for Archaeological Assessment” (D1886) prepared by Jenny Emmett of GAPS (dated 12th June 2014) as a methodology for an initial programme of works. It is intended that the results of the works outlined in this proposal will inform decisions as to the nature of any further archaeological mitigation strategies which may be required.

The scheme is located within the Dyffryn Ogwen Registered Landscape of Outstanding Historic Interest, recognised for its dual significance as containing extensive prehistoric remains and for the influence and remains associated with the post-medieval to modern slate industry.

Initial research conducted by GAPS and included in “The Design Brief for Archaeological Assessment” has noted that although Tal y Bont village developed partly in association with the slate industry, the potential for earlier periods of activity is likely to be more pertinent to the proposed scheme.

This document also records that although there are no HER entries located within the indicative extent of the proposed scheme, a group of undated lead and bronze artefacts are recorded as having been found at Maes y Groes, near the eastern end of the scheme (PRN 5484). It has also been suggested that a Roman fortlet is located in the vicinity (two possible sites are recorded on the HER as PRNs 2453, 2454, 2456) but this is as yet unconfirmed. A potential for prehistoric activity is indicated by the Tan-y-Marian hut group (scheduled monument Cn252) approximately 440m east of the scheme, and by the extensive multi-period remains at Parc Bryn Cegin, Llandygai, to the west of the Afon Ogwen.

Monuments/features recorded at Parc Bryn Cegin include henges, a cursus, Neolithic settlement and an early medieval cemetery. Although this site is considered likely to be exceptional in both extent and quality of remains the land to the east of the Afon Ogwen has been less researched and its potential consequently less well understood. GAPS consider that the results from Parc Bryn Cegin could be taken as a general indication of significant activity within the locality throughout most periods and since the land crossed by the proposed scheme appears not to have been previously disturbed (excepting land immediately adjacent to the A55), it is considered to have potential for surviving buried archaeological deposits. The potential extent, nature and significance of the archaeological resource requires clarification in order to inform planning decisions at the site.

This document has been prepared to outline works which will supply the Local Planning Authority Archaeologist with information as to the potential archaeological impacts of the scheme.

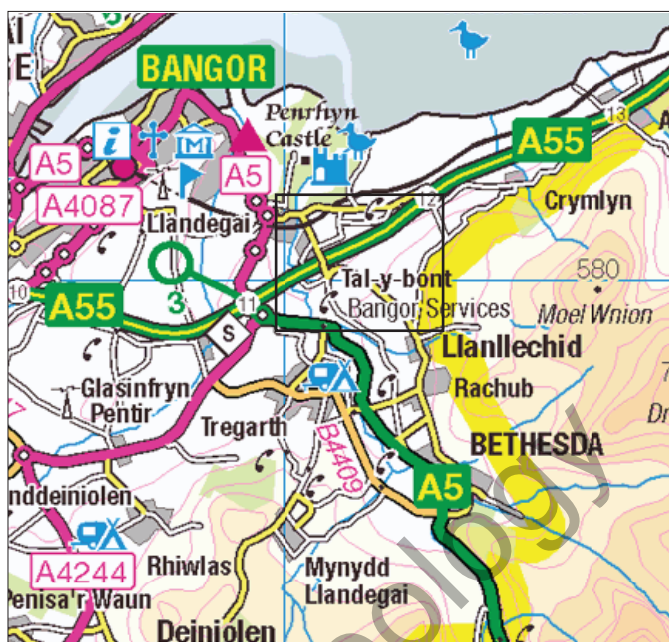
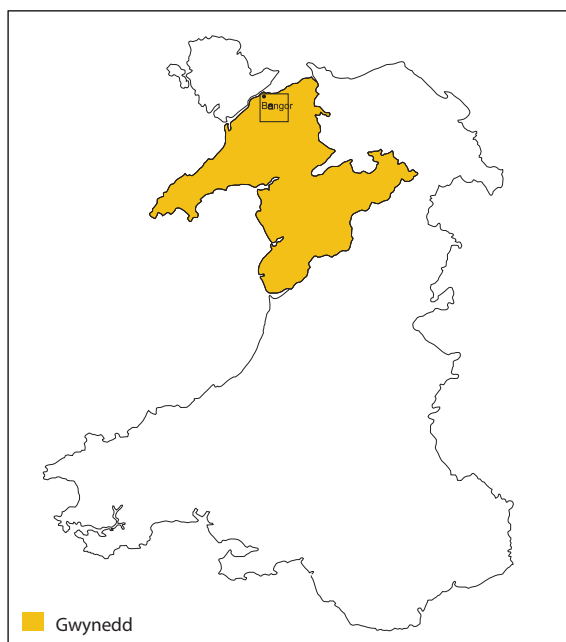


Figure 1. Site Location Map (Source: OS Open Data Mapping.
Contains Ordnance Survey data © Crown copyright and database right [2015])

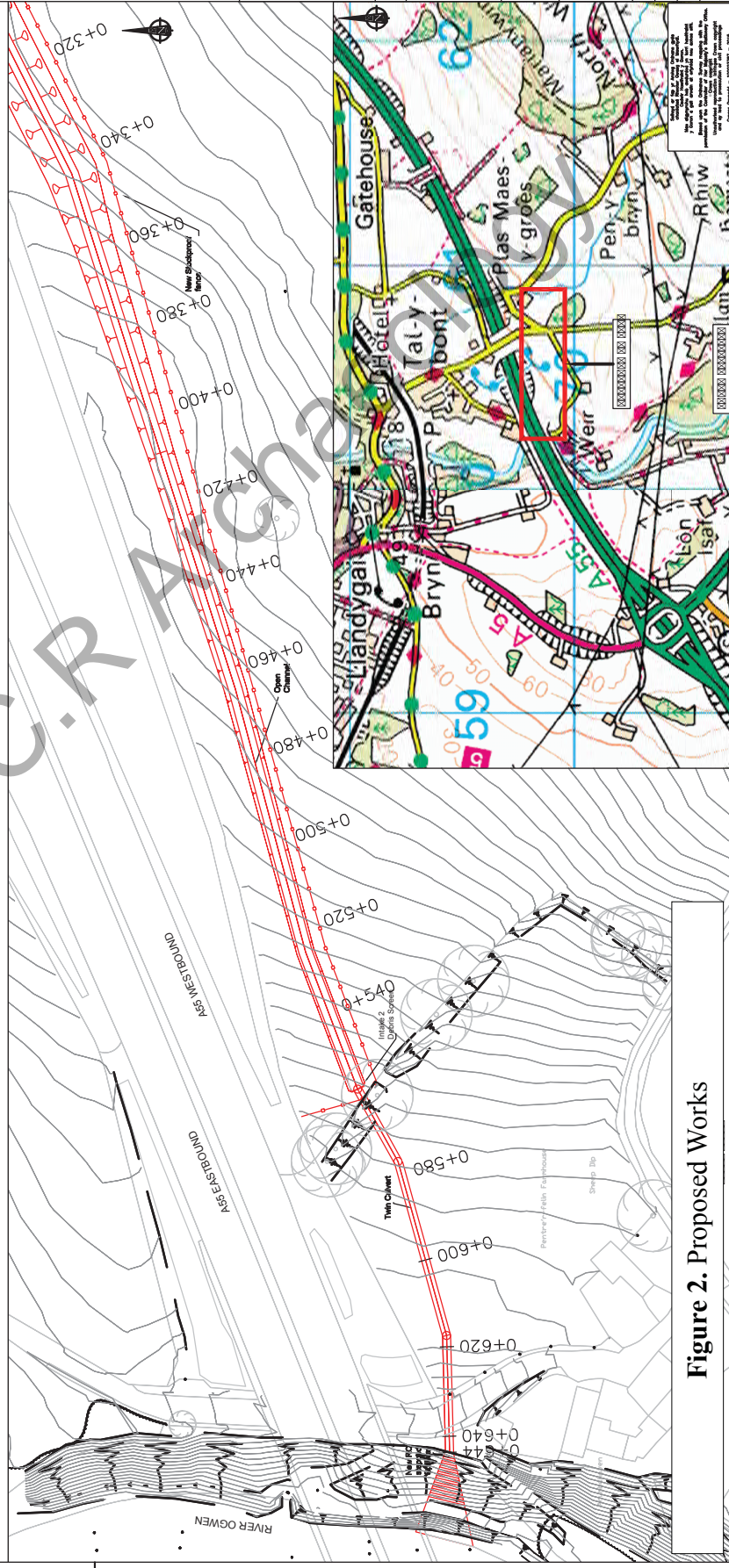
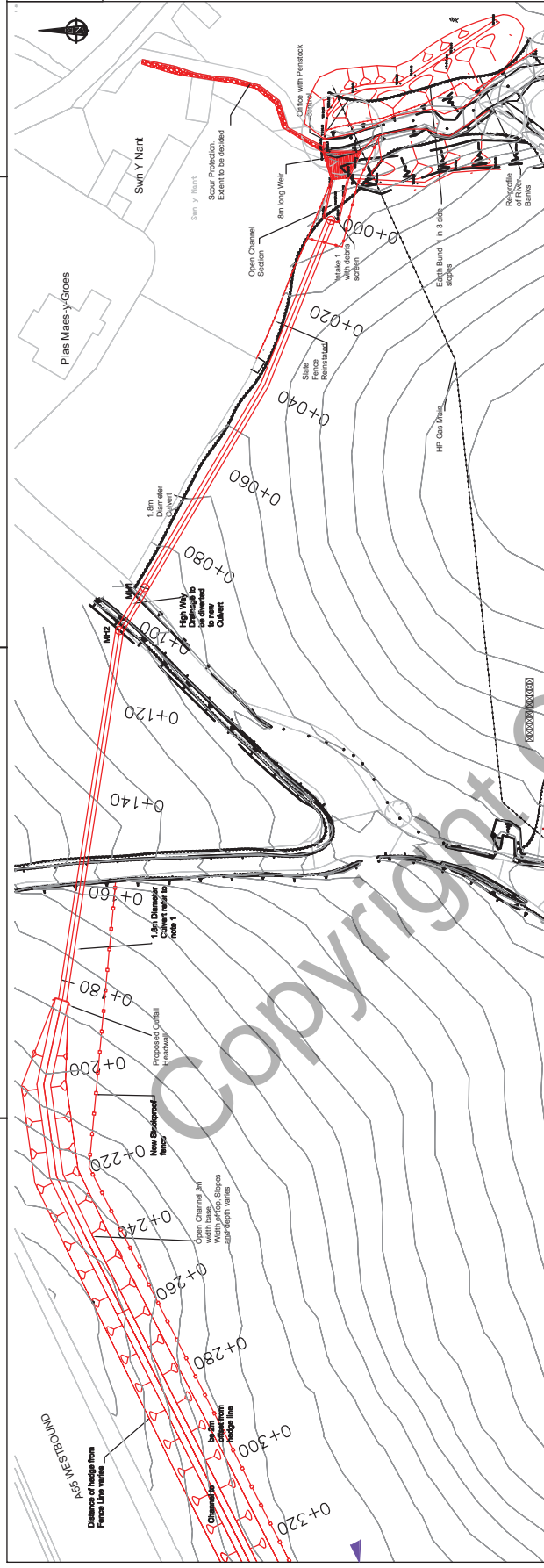


Figure 2. Proposed Works

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2.0 Project Aims & Objectives

The programme of works proposed for the A55 Tal y Bont Flood Alleviation Scheme aims to undertake a desk-based assessment and walkover survey.

The first aim of this scheme of works is to undertake desk based historical research exploring the history of the site. This information will include a map progression and archival research in order to compile a coherent narrative history of the site.

The Gwynedd Historic Environment Record (HER), the Royal Commission of Ancient and Historical Monuments Wales (RCAHMW) database, Gwynedd Archives, Bangor University Archives and publications will be consulted to compile a record of known archaeological sites in the vicinity.

The second aim of this archaeological investigation is to undertake a walkover survey of the site and assess the survival of any above ground archaeological remains (i.e. earthworks and standing structures).

It is intended that this document be utilised to inform further archaeological mitigation and conditions at the site.

The objectives of this programme of works are:

- To make full and effective use of existing information to establish the archaeological significance of the site
- To assess the impact of the development proposals on surviving monuments or remains
- To help inform future decision making, design solutions and potential mitigation strategies

3.0 Brief Historical Background

The following section is, through necessity, very brief and is intended to merely place the site in context. A more detailed history of the site will form a key element in the proposed works.

Tal y Bont village developed partly in association with the slate industry and initial research conducted by GAPS and included in “The Design Brief for Archaeological Assessment and Evaluation” has also noted that a group of undated lead and bronze artefacts have been recorded as having been found at Maes y Groes, near the eastern end of the scheme (PRN 5484), and it has also been suggested that a Roman fortlet is located in the vicinity (two possible sites are recorded on the HER as PRNs 2453, 2454, 2456) but these are as yet unconfirmed. A potential for prehistoric activity is indicated by the Tan-y-Marian hut group (scheduled monument Cn252) approximately 440m east of the scheme, and by the extensive multi-period remains at Parc Bryn Cegin, Llandygai, to the west of the Afon Ogwen.

3.1 Topography

The site traverses two minor roads and four parcels of agricultural land, mainly characterised by improved pasture. Field boundaries comprise a mixture of hedgerow, post and wire fencing, slate and wire fencing and stone walls. The scheme crosses gently sloping land with a north/north-westerly aspect, at approximately 50m OD.

3.2 Geology

The superficial geology of the site (at a scale of 1:50 000) is described 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. These rocks were formed in cold periods with Ice Age glaciers scouring the landscape and depositing moraines of till with outwash sand and

gravel deposits from seasonal and post glacial meltwaters. ”. The bedrock geology at the site is recorded as “Nant Ffrancon Subgroup - Siltstone. Sedimentary Bedrock formed approximately 451 to 479 million years ago in the Ordovician Period. Local environment previously dominated by shallow seas. These rocks were formed in shallow seas with mainly siliciclastic sediments (comprising of fragments or clasts of silicate minerals) deposited as mud, silt, sand and gravel. ” (www.bgs.ac.uk).

4.0 Scheme of Works - Methodology

It is proposed that the archaeological works be conducted in two sections and each is detailed separately below.

4.1 Desk Based Research

A complete and coherent history of the site will be compiled utilising material sourced from local archives. Gwynedd Archives and the Bangor University Archives will be consulted. This will allow as comprehensive a history as possible to be compiled. A full map progression of the area will be undertaken. Where appropriate the archive information will be supplemented with information from local libraries and specialist interest websites & journals.

In order to identify the character of archaeological remains in the vicinity of the site a search of the Gwynedd HER will be conducted examining an area within a 1000m radius of the proposed works (centred on grid reference 260952 370011).

The RCAHMW database and aerial photographs of the site will be examined. The information collected will be discussed within the main report text.

The works will be carried out 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 walkover survey.

4.2 Walkover Survey

A walkover survey of the proposed route of the works is to be undertaken by a suitably qualified professional archaeologist. This work will consist of:

- 1) The route of the proposed works will be walked and an examination made of any visible archaeological remains, in particular standing structures and surviving earthworks
- 2) A photographic record of the route will be created showing the general character of the area and detailed photographs with an appropriate scale will be taken of any features of archaeological interest. The location of photographs taken will be noted on the site plan. The measurements and location of any features will be recorded on an annotated site plan and in notebook form.

The works will be carried out accordance with the CIFA Standards and Guidance for historic environment desk-based assessment (Cifa 2014).

4.2.1 Equipment

The photographic record compiled during the walkover survey will be undertaken using a 14.2 mega-pixel Sony A350 digital camera with a variety of standard and other lenses. Images will be captured in RAW format for later processing into high resolution JPG and TIF files.

4.3 Timetable for Proposed Works

It is envisaged that the walkover survey will be undertaken in March 2015 and a day has been allocated for this activity. A further five days have been allotted for archive research, report compilation and site archiving.

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 AIfA 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.

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:

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

Any further PPE required will be provided by C.R Archaeology

All staff will have passed at least a CITB health and safety test at least operative level and will carry a Construction Related Organisation (CRO) White Card for Archaeological Technician (Code 5363) or a Site Visitor card.

C.R Archaeology staff 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.

The desk-based assessment will consider the following:

- the nature, extent and degree of survival of archaeological sites, structures, deposits and landscapes within the study area through the development of an archaeological deposit model. This deposit model should reflect accurately the state of current knowledge and provide a research agenda for further work if necessary
- the significance of any remains in their context both regionally and nationally
- the history of the site
- the potential impact of any proposed development on the setting of known sites of archaeological importance.

It is intended that this report will inform decisions as to the necessity and/or nature of any further archaeological mitigation strategies which may be required.

A copy of the report 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 to GAPS 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.

4.7.1 Copyright

C.R 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.

5.0 Bibliography

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 Archaeological Desk-Based Assessment*

The Chartered Institute for Archaeologists. 2014. *Standards and Guidance for Historic Environment Desk-based Assessment*

The Chartered Institute for Archaeologists. 2014. *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*

Websites – all sites were visited 04/03/2015

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

www.ordnancesurvey.co.uk

Appendix B.

Sites Recorded Within a 1000m Search Radius Of the Proposed Development Area

Copyright C.R Archaeology

PRN	Site Name	Description	Form	Type	Period	Site Status	NGR
3673	Pebble Macehead, Llandygai	One pebble macehead with an hour-glass perforation was found on the right bank of the River Ogwen, near Cochwillan (SH 606694), between Llandegai and Bethesda. <1> Pebble maceheads, on right bank of river between Llandegai and Bethesda. <2>	Find Only	Find Spot	Prehistoric		SH6069
2320 (Map Point 1)	Hut Group, Tan-y-Marian	Three circular huts, with the less distinct walls of a more or less semi-circular structure adjoining the largest of them. A sunken track leads downhill for 25m in a NW direction, it is 6m wide at its narrowest part and flanked by a few orthostats. Two huts are contiguous, the third lie apart from them to the west, a massive curved wall 8m long and 2m thick fills the interval. The walls of all the huts are 2m thick. The site is much overgrown and many orthostats have been removed to build the modern drystone wall. <1> Terraces about 30m to the SE of the hut group possibly represent remains of an early field system. <2> The settlement comprises 3 interlinked hut circles dating from the Iron Age/Romano British period. The huts are orthostatic in construction and are set around a sunken yard area which is approached by a clear trackway. Associated with the settlement are a number of terraces, which are likely to be the remains of a contemporary field system. <3>	Building - Ruined	HUT CIRCLE SETTLEMENT	Unknown	Scheduled Ancient Monument CN252	SH6130 7020
295 (Map Point 2)	Hut Group (Enclosed), Rhwi Goch (Camp)	Hut group, enclosed, nearly circular, standing on a level terrace on a hillside. The wall was formed of two lines of upright stones with a filling of smaller stones and earth. The entrance may have been on the E, where a modern wall crosses the bank. One oval hut, with its long axis N-S, lies against the outer wall on the SW. A line of large stones within the enclosure appears to be the remains of a recent field wall. Traces of terracing exist in the surrounding fields, almost obliterated by modern ploughing. <1> Class IV (bii): ?Post Roman. <2> The enclosure wall is now visible as a turf covered bank, 1.1m high containing much stone. There is no evidence to suggest that the line of stones within the enclosure is modern, otherwise the site is as described by RCAHM. Resurveyed at 1:2500. <3> The enclosure is nearly circular in shape, with a diameter of 36m. There is a substantial enclosure wall circa 2.25m wide and 0.75m high of large facing stones with rubble centre. The remains of one oval hut 13 m by 1.6m lie in the SW corner of the enclosure. Another	Building - Ruined	Roman HUT CIRCLE SETTLEMENT	Roman	Scheduled Ancient Monument CN056	SH616869 31

		bank runs off NE from the corner of the hut. The site is crossed from W to E by a line of large stones, presumably the remains of a field boundary, probably of fairly recent origin. The site is also out by a modern field bank running N-S, resulting in a small portion of the site on the E being isolated from the main part. Stone has been dumped on the E part of the site, covering over any original features. The site is covered with bracken and has seven thorn trees growing upon it. <4>					
6890	Roman Coin - Findspot, Llandegai	Very worn 2nd century AD coin (copper alloy) found by Tony Myers in his garden at Penlan, Llandegai. Identified by John Ellis Jones. <1>	Find Only	Find Spot	Roman	SH6070	
2454 (Map Point 3)	Roman Fortlet, Tal-y-bont	An apparent right-angled corner in the field west of St. Cross church. <1> Photograph. <2>	Document	FORTLET	Roman	SH60757075	
2456 (Map Point 3)	Roman Fortlet, Tal-y-bont	An apparent right-angled corner in the field west of St. Cross church can be seen in a 1968 aerial photograph. Since the building of the new A55 expressway south of Tal-y-Bont, this area of land has been landscaped. <1> Photograph. <2>	Document	FORTLET	Roman	SH60697068	
2453 (Map Point 3)	Roman Fortlet, Tal-y-bont, Bryn-derwas	An apparent square can be seen in the southern half of a field above Tal-y-Bont in an aerial photograph taken in 1968. <1> Believes that the site was visited by R. B. White (no record of this on the HER), who was of the opinion that the feature was a field boundary, and not of a defensive nature. <3>	Document	FORTLET	Roman	SH60706990	
5484	Lead and Bronze Finds - Findspot Maesy Groes, Tal		Find Only	Find Spot	Unknown	SH6070	
3670 (Map Point 4)	Cochwillan (House), Llandygai	Cochwillan - 'The dark red enclosure' - called this because of purple shade of the Penrhyn slate, which reddens the soil. There are many historical associations tied up with the house. For successive centuries have the virtues of the occupants of Cochwillan been the theme of bardic song. The only portion of the house remaining is the dining room - which appears to have formed the N side of a quadrangle. <1> Originally seat of Griffiths before Penrhyn acquired it. The original house probably occupied the same site but the portions remaining do not belong to a period earlier than late C15th. The walls are constructed of rubble masonry, older stonework is of remarkably good workmanship. The roof of the hall is of hammer-beam construction. The wall pieces,	Building - Roofed	Medieval House	Medieval	SH60696943	Grade I Listed Building ID 3653

		below hammer-beams supported on stone corksels, carved into the shape of heads. <2> A long awkward old building, one side as I suppose of what was once a quadrangle entered by an old gateway, still extant and very plain and mean. <3>				
		Cochwillan was part of the Penrhyn lands and a house may have stood here as early as the C13th. The present building is however not earlier than 1450. The house consists now of a rectangular block, 62ft by 21ft, its axis roughly E-W, with a projecting chimney in the N wall. The walls are of rubble with gritstone dressings, the original walling, especially on the S being well built of large stones with spalls as filling. The slate roof is modern. The most striking remaining feature of the hall is the roof of three bays divided by trusses of hammer-beam type. <4>				
		The building is as described in RCAHM (<4>). It is now in use as a barn, but is due to be restored by the Penrhyn Estate in the immediate future. Published survey 25" correct. <5>				
		The house is now habitable and is inhabited by Frances Lynch <6>				
		In the winter of 1975 Cochwillan was visited by Cymdeithas Archaeoleg Llandegai a Llanllechid, the old barn had been restored as a house again. <7>				
		Booklet giving history and description of Cochwillan has been produced. Shows the parts of the building restored in 1970. <8>				
		Not before 1450, stone. Hall type. Hammer beam roof trusses. Timber framed partitions. Wide fireplace. Probably by W ap Gruffudd. H VII high Sheriff of Caerns. <9>				
		Early 19th century. Stone. Undershot wheel. 3 storey. Gabled dormers. Machinery restored and used. Old slate roof. Brick chimneys. Pine timbers. Lean-to grain drying shed. <1>	Document	POST-MEDIEVAL CORN MILL	Post Medieval	Grade II Listed Building ID 3669
			Find Only	Find Spot	Post Medieval	SH6070
		Site identified using early Ordnance Survey Maps			Post Medieval Farmstead	SH606106 9190
		Badge, possible from a harness, with a shield in the centre and mrelief decoration around. Patches of rust show the locations of nails holding the badge to an item. There are letters	Find Only	Find Spot	Post Medieval	SH6070

	Llanllechid	stamped into the shield, but these are not easy to decipher and are possibly: T O W N or T L O W I L L - - C O L - F T					
11665 (Map Point 7)	Lon-isaf Toll Gate and Building, Llandygai	<p>They have been added to the shield using a machine, or machinemade punch. The badge has been bent diagonally (as shown in the image), which has caused damage to the reverse where cracks are present along the line of the bend.<1></p> <p>Early 19th century stone. Slated. 1 storey. Brick central chimney. Pyramidal splayed projection with porch. Similar porch across the road. <1></p> <p>Cadw Listing Description: Cottage - History Built c1825 to a design by Thomas Telford as a toll keeper's cottage on the London to Holyhead road, turnpiked by Thomas Telford between 1815 and 1830.</p> <p>Reason Included at II* as an exceptionally well-preserved early C19 toll keeper's cottage on a remarkably unaltered stretch (owing to by-passing) of the former turnpike road; strong group value with weigh house and original roadside walling complete with depot directly opposite.</p> <p>Weigh House - History Built in association with the toll keeper's cottage on the London to Holyhead road, turnpiked by Thomas Telford between 1815 and 1830.</p> <p>Reason Included for its special interest as an unusual survival of an early C19 weigh house, one of only 2 surviving on Telford's London to Holyhead turnpike road; strong group value with associated toll keeper's cottage opposite and adjoining roadside walling with depot.</p>	Building - Roofed	POST-MEDIEVAL TOLL HOUSE	Post Medieval	Grade II* & II Listed Buildings Cottage ID 3665 Weigh House ID 23342	SH6019 6938
24026	Pottery Sherd, Findspot, Llanllechid	<p>Pot sherd, probably Buckley ware. Internal face missing, showing slightly marbled fabric created from terracotta and white clay (or similar types thereof). The exterior of the object, possibly a plant pot, jug or cup, has wide incised lines roughly 3-4mm in width and with approximately 9mm between them. They have been roughly incised. The exterior surface also shows a matt, dark red-brown glaze/paint that has flaked off in places. There are a number of tiny spots of a black substance on the surface - it may either indicate that this area was originally painted/glazed black, or that specks of black glaze landed on the outside of the object from another area. It was quite usual for Buckley pots to be glazed on the interior and upper exterior. Black glaze was made using lead ore, finely ground, and may have been 'powdered' onto the pots before 17th century liquid glazes were used.</p> <p>The sherd has been somewhat abraded, as would be expected from an item subject to plough action, although it cannot be considered to be very old as it could still be regarded as in reasonable condition (with the exception of the missing interior surface).<1></p>	Find Only	Find Spot	Post Medieval		SH6170

20046 (Map Point 8)	Slate Quarry, Chwarel Las	Pit, very small. Remains: Rubbish runs only. (Davidson, Gwyn, Jones & Riley, 1994)	SLATE QUARRY	POST-MEDIEVAL SLATE QUARRY	Post Medieval	SH61106960
2323 (Map Point 9)	Tal-y-bont Uchaf	A small two-storeyed house of uncoursed rubble, probably late 16th century (Authy 3) (C17, Authy 4), with later additions. There is a later wing added to the south at right-angles. Features include slate roof, projecting chimney at the east end, inside crosspassage and fragments of a post-and-panel partition. <1> <2> <3> 17th Century and alterations. 2 storey. Red sandstone. Slated. Massive chimneys. Remodelled entrance. Interior modernised. Site identified using early Ordnance Survey Maps (McGuinness, 2014)	Building - Roofed	POST-MEDIEVAL HOUSE	Post Medieval	SH61307068
56227 (Map Point 10)	Weir, N of Felin Cochwillan		Document	POST-MEDIEVAL WEIR	Post Medieval	SH6012369953
5477	Trackways Above Llanfairfechan		Earthwork	TRACKWAY	Unknown	SH60007000
5847	Travellers Routes and Llys Helig, Traeth Llafan	Travellers routes across Traeth Lafan, and the Menai ferries, are recorded by Pennant in a tour in Wales. For other sources oncrossing the sands and on Llys Helyg see bibliography. <1>	Document	Routeway	Unknown	SH60007000

Additional Designated Sites From the www.historicwales.gov.uk/ Website

Site Name	Description	Form	Type	Period	Site Status	NGR
Small Estate House (Map Point 12)	<p>History Built c1850 as part of Edward Douglas-Pennant's considerable efforts to improve the Penrhyn Estate, to which he had succeeded in 1840. Colonel Douglas-Pennant first gave notice to his tenants of his intention to improve through his agent, James Wyatt's address "To the Farming Tenantry of the Penrhyn Estate", printed in 1843.</p> <p>Reason Included as an essentially unaltered mid-C19 small estate house of the simple Tudor Gothic style much found in pattern books of the period and often favoured for rural estate buildings at this time, although not used that extensively on the Penrhyn Estate outside Llandygai itself.</p>	Building - Roofed	POST-MEDIEVAL HOUSE	Post Medieval	Grade II Listed Building 23384	SH6006069766

Small Estate House (Map Point 13)	<p>History Built c1850 as part of Edward Douglas-Pennant's considerable efforts to improve the Penrhyn Estate, to which he had succeeded in 1840. Colonel Douglas-Pennant first gave notice to his tenants of his intention to improve through his agent, James Wyatt's address "To the Farming Tenantry of the Penrhyn Estate", printed in 1843.</p> <p>Reason Included as a typically characteristic mid-C19 pair of estate workers' cottages in the simple "vernacular revival" style particularly favoured by the Penrhyn Estate for its workers in the decades immediately after c1850.</p>	Building - Roofed	POST- MEDIEVAL HOUSE	Post Medieval	Grade II Listed Building 23385	SH60077 69741
Small Estate House (Map Point 14)	<p>History Built c1850 as part of Edward Douglas-Pennant's considerable efforts to improve the Penrhyn Estate, to which he had succeeded in 1840. Colonel Douglas-Pennant first gave notice to his tenants of his intention to improve through his agent, James Wyatt's address "To the Farming Tenantry of the Penrhyn Estate", printed in 1843.</p> <p>Reason Included as a typically characteristic mid-C19 pair of estate workers' cottages in the simple "vernacular revival" style particularly favoured by the Penrhyn Estate for its workers in the decades immediately after c1850.</p>	Building - Roofed	POST- MEDIEVAL HOUSE	Post Medieval	Grade II Listed Building 23386	SH 60080 69732
Cochwillan Farm Additional Later Buildings (Map Point 15)	<p>Later buildings at Cochwillan – group. Individually listed as: Outbuildings at Cochwillan Grade II ID22958 Cochwillan House NPRN 26298 Cochwillan Pigsties & Pig Kitchen Grade II ID 22964 Fferm Cochwillan Grade II ID22692 Slate Fencing at Bwthyn Cochwillan Grade II ID 22961 Bwythyn Cochwillan Grade II ID 22959 Pigsties at Bwythyn Cochwillan Grade II ID 22960 Cochwillan Garden NPRN 86339</p>	Building - Roofed	POST- MEDIEVAL AGRICULT URAL BUILDINGS	Post Medieval	Listed Buildings	SH 60669 69463
Tyddyn-isaf & Tyddyn-isaf bach (Map Point 16)	<p>History Built in the early C19 as a pair of single-storey cottages, the western cottage (Tyddyn-isaf) was raised in height to form a 2-storey farmhouse in mid-C19, at which time a cowhouse was added to its west gable end. Although separate units of accommodation, the 2 dwellings serve the same farm; the cowhouse has now been converted to domestic use. The mid-C19 enlargement of Tyddyn-isaf was probably carried out as part of the widespread improvements made by the Penrhyn Estate to its farms at this period, the 2-storey part becoming the main farmhouse with the single-storey section being used as a labourer's cottage.</p> <p>Reason Included as a mid-C19 farmhouse apparently with earlier origin as 2 cottages, characteristic of the many remodellings carried out by the Penrhyn Estate to its farms at this period with 2 attached but distinct dwellings serving the same farm holding, in this case the larger forming the farmhouse and the smaller a labourer's cottage.</p>	Building - Roofed	POST- MEDIEVAL HOUSE	Post Medieval	Grade II Listed Building ID 22946	SH 61407 369626

Pen-y-bryn (Map Point 17)	<p>History Probably originating in the early C19, a farmhouse (smaller than the present building and probably represented by the 3-bay section of the existing structure) is shown here on the 1840 Tithe Map. It was extended to its present form c1850 as part of the widespread improvements made by the Penrhyn Estate to its farms at this period.</p> <p>Reason Included as a mid-C19 farmhouse of apparently earlier origin, the later phase characteristic of the many remodellings carried out by the Penrhyn Estate to its farms at this period; retains vernacular character largely intact.</p>	Building - Roofed	POST- MEDIEVAL HOUSE	Post Medieval	Grade II Listed Building ID 22952	SH 61414 69791
Tan-y-marian (Map Point 18)	<p>History Built c1860 on land provided by the Penrhyn Estate as the manse for Edward Stephens, minister of the Independent chapels at Rachub (Capel Carmel) and Tal-y-bont (Capel Bethlehem). Stephens (1822-1885) was a noted composer of hymn tunes and well-known preacher. The level area of ground immediately to the west of the rubblestone wall in front of the house is the site of a former tennis court.</p> <p>Reason Listed as a substantial and essentially unaltered mid-C19 manse built in the late Georgian idiom.</p>	Building - Roofed	POST- MEDIEVAL HOUSE	Post Medieval	Grade II Listed Building ID 22926	SH 61587 70052
Walling and Depots on east side of former turnpike road (old A 5) (Map Point 19)	<p>History Built in association with the toll keeper's cottage on the London to Holyhead road, turnpiked by Thomas Telford between 1815 and 1830, the walling defined the eastern side of the road and the depots were used for the storage of road maintenance equipment.</p> <p>Reason Included for its special interest as an unusually well-preserved stretch of roadside walling and associated depots on this remarkably unaltered stretch of Telford's London to Holyhead turnpike road; strong group value with associated toll keeper's cottage opposite and adjoining weigh house and further to the north with the cottages at Lon Isaf.</p>	Walling	POST- MEDIEVAL WALLING	Post Medieval	Grade II Listed Building ID 23459	SH 60231 69233
Capel Bethlehem (Map Point 20)	<p>History Early C19 Independent chapel remodelled in 1860, the date of the present building, with Sunday School to rear erected in 1892 on land donated for the purpose by the Penrhyn Estate. Edward Stephens (1822-1885), a noted writer of hymn tunes, was minister here from 1859 to 1885; he was also minister at Rachub and lived at Tan-y-marian, a house roughly equidistant between the 2 chapels built in c1860.</p> <p>Reason Included as an essentially unaltered mid-C19 chapel with simple interior of the period.</p>	Building - Roofed	POST- MEDIEVAL CHAPEL	Post Medieval	Grade II Listed Building ID 22947	SH 60464 70508
Tre-felin Cottages (Map Point 21)	<p>History The Tre-felin Saw Mill and the adjoining cottages were here by 1888 (OS 1:2500 map). The 4 pairs of cottages were built for the sawmill workers, at the expense of the Penrhyn Estate which owned the mill. It is said that the cottages have their backs to the road so that Lord Penrhyn could not see the washing hanging in their gardens, which are thus screened from public view by the cottages themselves.</p>	Building - Roofed	POST- MEDIEVAL HOUSE	Post Medieval	Grade II Listed Building ID 23431 - 23438	SH 60031 70713

	Reason A well-preserved sequence of 4 paired cottages built by the Penrhyn Estate for workers in its sawmill, which was established in the shadow of the Chester to Holyhead railway in the second half of the C19; an important example of industrial workers' housing in an essentially rural context.					
Former Sawmill Manager's House (Map Point 22)	<p>History The Tre-felin Saw Mill and the adjoining cottages were here by 1888 (OS 1:2500 map): this house was the sawmill manager's house and the adjoining pairs of cottages were built for the sawmill workers, all owned and paid for by the Penrhyn Estate. The yard of the former sawmill is now used as a Council highway depot.</p> <p>Reason Included as the essentially unaltered manager's house of the former Tre-felin Saw Mill, which was established by the Penrhyn Estate in the shadow of the Chester to Holyhead railway in the second half of the C19; the whole complex forms an important example of industrial workers' housing in an essentially rural context.</p>	Building - Roofed	POST-MEDIEVAL HOUSE	Post Medieval	Grade II Listed Building ID 23430	SH 60135 70748
Tal-y-bont Lodge (Map Point 23)	<p>History The lodge was built as part of work on the park wall, which appears to have begun in 1819 under the supervision of William Baxter, clerk of works to the Penrhyn Estate, and to have continued during the 1820s. The hand of Thomas Hopper is less noticeable than at Grand Lodge but it is quite possible that he played some part in its design and the building's plainer appearance may simply result from the fact that this was a subsidiary entrance to the park.</p> <p>Reason Included as a well-preserved lodge of simple neo-Norman style contemporary with and attached to the complete C19 park boundary wall notable for its contribution to the historic character of a major Welsh country house and park.</p>	Building - Roofed	POST-MEDIEVAL LODGE	Post Medieval	Grade II Listed Building ID 22925	SH 60337 70879
Railway Viaduct (Map Point 24)	Carrying the Chester to Holyhead main line over the Afon Ogwen and then westwards over the former Tre-felin Saw Mill.			Post Medieval	Grade II Listed Building ID 23381	SH 60166 70674
Railway Viaduct (Map Point 25)	<p>Carrying the Chester to Holyhead main line over the Afon Ogwen and then westwards over the former Tre-felin Saw Mill.</p> <p>History The Chester to Holyhead line was proposed to improve links with Ireland, the bill being passed in July 1844 with Robert Stephenson as engineer and Francis Thompson of Derby as architect. This viaduct is likely to be by Stephenson with assistance from Mr Foster, the resident engineer for this stretch of the line. Opened 1 May 1848 and taken over by the London & North-Western Railway in 1859. The Afon Ogwen here forms the boundary between the Llanllechid and Llandygai communities.</p> <p>Reason Included as a substantial and essentially unaltered early railway structure on the important Chester to Holyhead Railway, the viaduct is both architecturally distinctive and</p>			Post Medieval	Grade II Listed Building ID 22956	SH 60272 70696

Eglwys St Cross (Map Point 26)	<p>a fine example of railway engineering.</p> <p>History Built in 1892 at the expense of the Penrhyn Estate on land given for the purpose by George Sholto Gordon Douglas-Pennant, second Baron Penrhyn. The architect was Thomas Dinham Atkinson of Cambridge with Owen Morris of Caernarfon the principal contractor. Atkinson (1864-1950) was to become a noted ecclesiastical architect, serving as architect to both Ely and Winchester cathedrals. He was also architect to Winchester College, while his best-known secular commissions were the Observatory and Library at Cambridge University. Eglwys St Cross is amongst his earliest commissions.</p> <p>Reason Listed as an unaltered late C19 church of simple neo-Norman style, rather unusual for this late date but assured in its austerity and showing an understanding of the principles of the developing Arts and Crafts movement of the period; an early work of T Dinham Atkinson, a noted church architect.</p>	Building - Roofed	POST- MEDIEVAL CHURCH	Post Medieval	Grade II Listed Building ID 22951	SH 60867 70804
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