

A487 PENYGROES/LLANLLYFNI BYPASS

ARCHAEOLOGICAL ASSESSMENT

REPORT NO 75

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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for Gwynedd County Council Highways and Transportation Dept.

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INITIAL REPORT

1. INTRODUCTION

As part of its improvements to the A487 Bangor - Fishguard Trunk Road, the Welsh Office is proposing to construct a bypass from Llanwnda to south of Llanllyfni, to avoid the villages of Groeslon, Penygroes and Llanllyfni. The proposed route starts at Llanwnda at approximately SH471573, and runs south for about 9.5 km to link up with the present road again near Caerau (SH469493).

The route crosses mainly agricultural land, currently laid down to permanent pasture, and also follows the line of the old railway from Afon Wen to Caernarfon (now a cycle track, Lôn Eifion) for part of its length. The cycle track will be re-routed to run alongside the road, with a belt of trees between, where necessary.

The extent of the area of interest is a strip 500 m wide centred on the proposed route, but expanding to include slip roads, roundabouts and alterations to existing roads.

The proposals are to be accompanied by an Environmental Assessment, which is being prepared by Richards, Moorhead & Laing for Gwynedd County Council. Gwynedd Archaeological Trust was contracted to undertake the archaeological assessment of the route, to be presented as part of the Environmental Statement.

2. ASSESSMENT BRIEF

An initial report was requested from Gwynedd Archaeological Trust, assessing the likely archaeological impact of the plans and suggesting mitigatory measures. A Suggested Project Design was produced by the Trust, and agreed with Cadw: Welsh Historic Monuments. Slight modifications were made to the Project Design, and agreed with Cadw, following the publication of the 'Design Manual for Roads and Bridges' - Volume 11, Environmental Assessment. The work carried out has therefore followed the original project design but with the modifications needed (notably to the categories, see section 4 below) to take into account the procedures outlined in Section 3, Part 2 of Volume 11.

The basic requirement was for a desk-top survey and field search of the corridor of interest in order to assess the impact of the proposals on the archaeological and heritage features within the road corridor and close enough to it to be affected. The importance and condition of known archaeological remains were to be assessed and areas of archaeological potential and new sites to be identified. Measures to mitigate the effects of the road scheme on the archaeological resource were to be suggested.

Gwynedd Archaeological Trust's proposals for fulfilling these requirements were, briefly, as follows:

- a) to identify and record the cultural heritage of the area to be affected by the proposals;

b) to evaluate the importance of what was identified (both as a cultural landscape and as the individual items which make up that landscape); and

c) to recommend ways in which damage to the cultural heritage can be avoided or minimised.

This report covers the work done under the first two stages of assessment, documentary research and walking the route, and includes recommendations for later stages.

N.B. Full details of ancillary areas likely to be affected by the road works, such as vehicle parking and turning areas, materials storage areas etc., have not yet been supplied. Experience shows that these areas are as likely to suffer damage as the actual landtake for the road. If all such areas fall within the corridor of interest, they will have been covered, but in order that all areas affected may be subjected to the same level of survey, any information relating to areas affected outside the 500 m corridor should be notified to the Trust as soon as possible.

3. THE ARCHAEOLOGICAL BACKGROUND

Settlement and burial sites of the prehistoric period are known within and near the corridor of interest, and sites and finds dating to this time occur in the surrounding area. Within the corridor, or on its edges, are three burnt mounds (probably cooking sites) and a burial mound, all likely to be of Bronze Age date. Several late prehistoric to Roman period settlement sites lie within the corridor, including the small promontory fort at Hen Gastell south of Llanwnda, the hut group south of Bryn-y-Gro and the extensive area of scheduled hut groups and field systems north of Caerau. Other prehistoric sites and finds, including earlier ones (e.g. a Neolithic polished stone axe from Dinas Dinlle, to the west; a small hillfort at Caer Engan, just south-east of Penygroes; Bronze Age cairns and a standing stone, with more hut groups, to the south-west) abound in the area, and it is clear that it was well settled during this period.

Sites from the Roman period fall into two groups, native and military. The hut groups mentioned above were certainly in use during this period (those which have been excavated have yielded Roman pottery), whether or not they originated in the prehistoric period. The military road between the forts at Segontium (Caernarfon) and Pen Llystyn (Bryncir) must run somewhere in the area, but has never been definitely located; it may pass through part of the road corridor. The prominent platform at Bryn Sisyllt, on the southern extremity of Llanllyfni, is thought to be the site of a Roman signal station. A hoard of Roman coins was found in the last century at Llywyn-y-Gwalch, north of Groeslon.

Settlement of the area during the Medieval period is well documented but not well represented on the ground. The churches at Llanwnda (north of the corridor; rebuilt) and Llanllyfni (just east of the corridor; held by the Bishop of Bangor), date from the Medieval period at least. The earliest documentary references are of the 13th century, but the original foundations may be several centuries older than this. The Medieval townships correspond more or less with the modern parishes, and it is reasonable to assume that the main settlement of each township would have been around the church. Thus only Llanllyfni, which also has a holy well, might actually lie partly within the road corridor. A small enclosure, visible as a raised area in the marshy ground west of the church and north of the well, may mark the site of a farm of this period, or possibly even an earlier church.

Houses and farms along the route date from at least the late 17th century onwards, some of them being buildings of intrinsic merit and some having group value with their associated outbuildings and walls. Others are now reduced to earthworks or ruins. At least one of the two mills which fall within the corridor was in existence in the 17th century: Melin Llwyn-y-

Gwalch, north-west of Groeslon, is mentioned in a document dated 1695. Melin Bryn-y-Gro, west of Nasareth, dates from at least the 18th century.

The Caernarfonshire Turnpike Trust was formed in 1769 and was responsible for maintaining the road from Tal-y-Cafn through Conwy, Bangor and Caernarfon to Pwllheli, part of which is now the A487. The building of the Afon Wen - Caernarfon rail link, however, effectively created a through rail route, and must have had an adverse effect on the turnpike traffic, as the Turnpike Trust ceased to exist in the 1870s.

Several events took place in the 19th century which transformed the landscape of the area. The most obvious was the development of the slate quarries in the Nantlle valley, and the building of the railways, with the associated development of slate villages such as Groeslon and Penygroes. Llanllyfni, although an older settlement, also grew substantially at this time.

The first railway between the quarries and the port of Caernarfon was opened in 1828. Called the Nantlle Railway, this was a 3' 6" gauge horse-drawn line running from Cloddfa'r Lon in the Nantlle valley to the quay at Caernarfon. In 1866 a standard-gauge line from Afon Wen to Penygroes was opened, whilst at the same time a standard-gauge line was built by the Nantlle Railway Company alongside its existing line from Tyddyn Bengam to Pant (just south of Caernarfon), and this connected with the Afon Wen line. Until 1872, the goods on the remaining section of the Nantlle line from Cloddfa'r Lon (the easternmost point of the railway) were carried on the 3' 6" gauge line to Tyddyn Bengam, where they were shipped onto the standard-gauge trucks. At Pant, they were unshipped and taken to the quay at Caernarfon by horsepower. In 1872 a new standard-gauge line was built from Pant to the quay at Caernarfon, and another from Tyddyn Bengam east to Talysarn. The old 3' 6" gauge line was retained in use from Talysarn eastwards to Cloddfa'r Lon, serving the quarries in the Nantlle Valley until 1963.

Industrial remains other than the railway are less well documented. Several field names along the route contain the word 'odyn', meaning kiln, but no traces of any structures are visible. The Inigo Jones slate works between Groeslon and Penygroes was once served by an aqueduct carrying water across the road, but it is uncertain what the function of the works was at this time. Several small quarry pits and tips, probably mostly for gravel, lie within the corridor; some are now filled in.

As might be expected, the sites of archaeological and historical interest which have best survived largely date from the later periods, but the area has most probably been settled from the Neolithic period at least and the potential exists for the discovery of further sites relating to all periods.

4. METHODS AND TECHNIQUES

Desk-top Study

Consultation of maps, computer records, written records and reference works, which make up the Sites and Monuments Record, was undertaken at Gwynedd Archaeological Trust. Records (including early Ordnance Survey maps, tithe maps and schedules, estate maps and papers and reference works - see bibliography) were also consulted in the library and the archives of the University College of North Wales, Bangor, and the County archives at Caernarfon. Aerial photographs were inspected at the offices of Gwynedd County Council, the County Archives at Caernarfon and the Countryside Council for Wales.

Field Search

This was undertaken during the period 24th November - 22nd December 1993 by two members of Trust staff. The whole length of the preferred route was walked where possible (inaccessible areas included some fairly large areas of forest between Groeslon and Penygroes, some small areas overgrown with scrub, and some extremely boggy enclosures), and the rest of the corridor was either walked or observed from neighbouring fields, paths etc. Conditions were generally fairly poor for fieldwork, as a significant proportion of the land was extremely boggy with thick growth of juncus, densely forested, or thickly covered with scrub, and the weather was dull, windy and wet, with poor light.

Several landowners were spoken to along the route; all were helpful but none were able to contribute information of material value.

Sites identified were marked on copies of 1:2,500 OS maps supplied by Gwynedd County Council, as accurately as possible without surveying. Forms were filled in assessing each site, and detailed notes made of the more important. Photographs were taken of all potential sites identified.

Report

All available information was collated, and transferred onto a single set of maps at a scale of 1:2,500 for convenience. The sites were then assessed and allocated to the categories listed below. These are intended to give an idea of the importance of the site and the level of response likely to be required, for ease of reference; descriptions of the sites and specific recommendations for further evaluation or mitigatory measures, as appropriate, are given in the relevant sections of this report.

In some cases, further investigation may result in sites being moved into different categories. The criteria used for allocating sites to categories are based on those used by the Secretary of State when considering ancient monuments for scheduling; these are set out in Annex 3 to Planning Policy Guidance 16: Archaeology and Planning.

Categories

The categories listed below follow the guidelines given in the 'Design Manual for Roads and Bridges' Volume 11, Section 3, Part 2, Paragraph 3.4, and allocation of a site to a category defines the importance of the archaeological resource of that site.

Category A - Sites of national importance.

Scheduled Ancient Monuments, Listed Buildings and sites of schedulable or listable quality, i.e. those which would meet the requirements for scheduling (ancient monuments) or listing (buildings) or both.

Sites which are scheduled or listed have legal protection, and it is recommended that all Category A sites remain preserved and protected *in situ*.

Category B - Sites of regional or county importance.

Sites which would not fulfil the criteria for scheduling or listing, but which are nevertheless of particular importance within the region.

Preservation *in situ* is the preferred option for Category B sites, but if damage or destruction cannot be avoided, appropriate detailed recording might be an acceptable alternative.

Category C - Sites of district or local importance.

Sites which are not of sufficient importance to justify a recommendation for preservation if threatened.

Category C sites nevertheless merit adequate recording in advance of damage or destruction.

Category D - Minor and damaged sites.

Sites which are of minor importance or so badly damaged that too little remains to justify their inclusion in a higher category.

For Category D sites, rapid recording, either in advance or during destruction, should be sufficient.

Category E - Sites needing further investigation.

Sites whose importance is as yet undetermined and which will require further work before they can be allocated to categories A - D are temporarily placed in this category, with specific recommendations for further evaluation. By the end of the assessment there should be no sites remaining in this category.

5. RESULTS

Archive material consulted during the desk-top study provided dating evidence for known sites (e.g. Talar-siencyn (1696), Garreg-wen-isaf (1771), Gelli-bach (1770)), and maps of successive dates allowed an appreciation of the development of the landscape, in particular the impact of the railways. Estate maps and papers were mostly of relatively recent date, but Ordnance Survey and tithe map coverage was good.

Lists supplied by Cadw: Welsh Historic Monuments gave information about listed buildings and scheduled ancient monuments, of which there are several within the corridor. Aerial photographs both confirmed the positions of known sites and showed up some 'new' sites.

Most of the fields walked in the course of the fieldwork had been repeatedly ploughed over many years. This meant that results were sometimes disappointing, nothing being visible on the ground even in fields where features show up on aerial photographs. It is clear that under these circumstances fieldwalking may not be the most efficient way of identifying new features.

Sites noted from documentary sources were identified in the field where possible, and in addition a number of previously unrecorded sites were identified. These are included, with the rest of the sites, in the Gazetteer. The total of sites allocated numbers in the Gazetteer was 49, plus an Archaeologically Sensitive Area (Area 1) which includes the large scheduled area north of Caerau (SAM C067) and several associated features.

The sites are described in numerical sequence. Each description is followed by recommendations for work in the case of a threat to the site. Where the remains require evaluating before full mitigatory measures can be decided upon, the recommendations are for further assessment, and where the information is sufficient to allow it mitigatory measures are suggested. A summary at the end of the Gazetteer lists the sites according to their allocated category.

1. Nantlle Railway *Category A*

The original narrow-gauge line for taking slate from the Nantlle quarries to the quay at Caernarfon. As stated in the introduction, this was built in 1828 and continued in use until the completion of the Afon Wen - Caernarfon line in 1866. This was the third line to be built in Caernarfonshire, following the construction of the Penrhyn and Dinorwic railways, but differed in being the first public line built, rather than being built by a quarry owner for the use of an individual quarry. In 1819 W. A. Provis, Telford's resident engineer on the Menai Suspension Bridge, was asked to survey a route for the railway, and this was finally complete in February 1825, when he estimated £18,952 14s 8d for construction of the line. The Bill granting permission for the new railway finally received Royal Assent in May 1825. At about this time the investors decided to ask George Stephenson to superintend the engineering aspects of the railway, and it would appear to be his influence which caused the rail type to be changed from plate rail (already ordered and part delivered) to edge rail, with flanged wheels on the carriages. The construction of the line involved some fine engineering, including the embankment at Bronydd, the Afon Gwyrfaï bridge at Bontnewydd, and the Plas Dinas and Coed Helen tunnels. The line can be traced along its full length and provides a fine example of early railway engineering. The following elements are likely to be affected by the route:

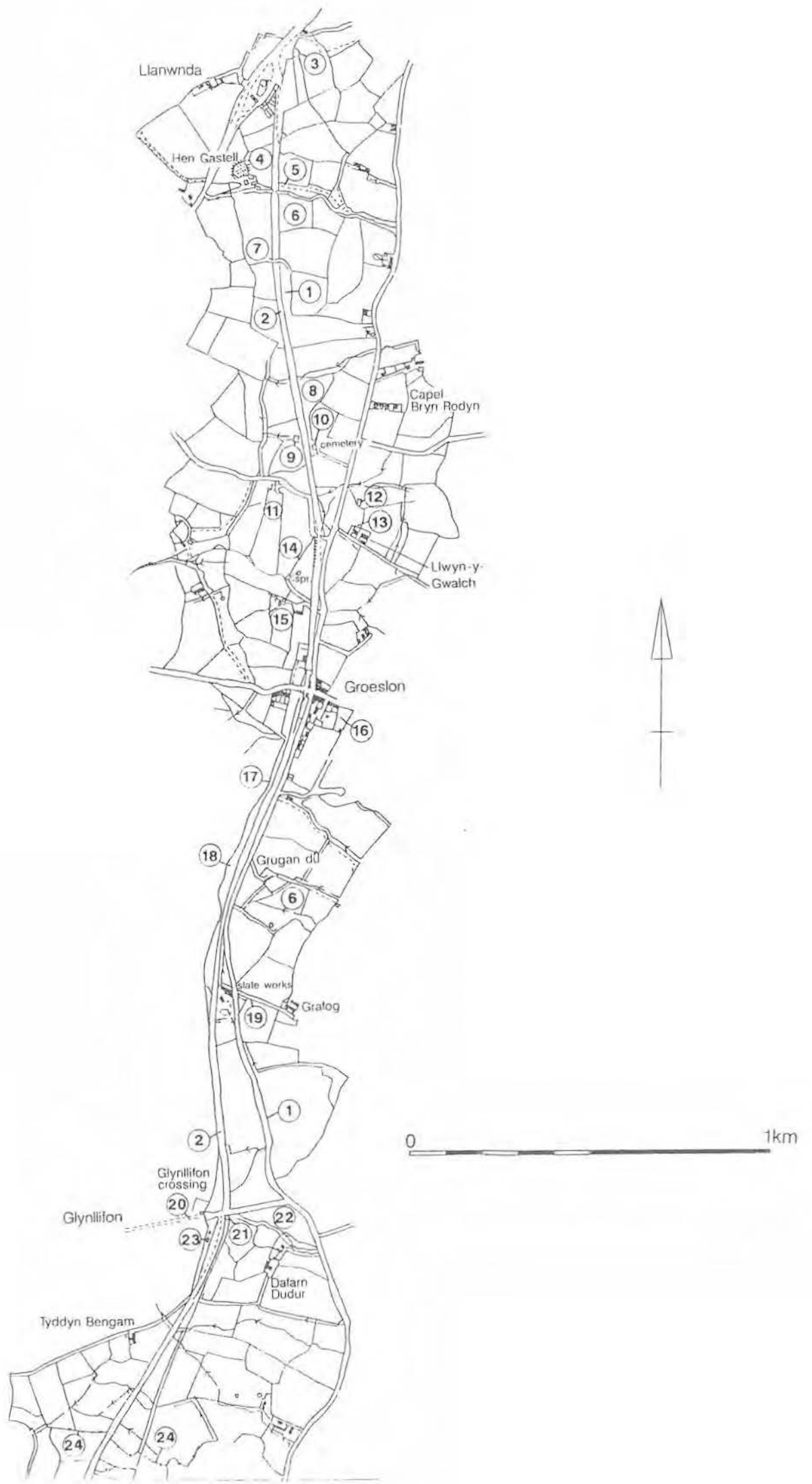
1a Bridge piers, for bridge over minor road by Llwyn-y-Gwalch, SH47375636. The embankment and line is particularly well-preserved here, running alongside the Afon Wen line. The bridge had already gone by 1889, but the bridge abutments remain.

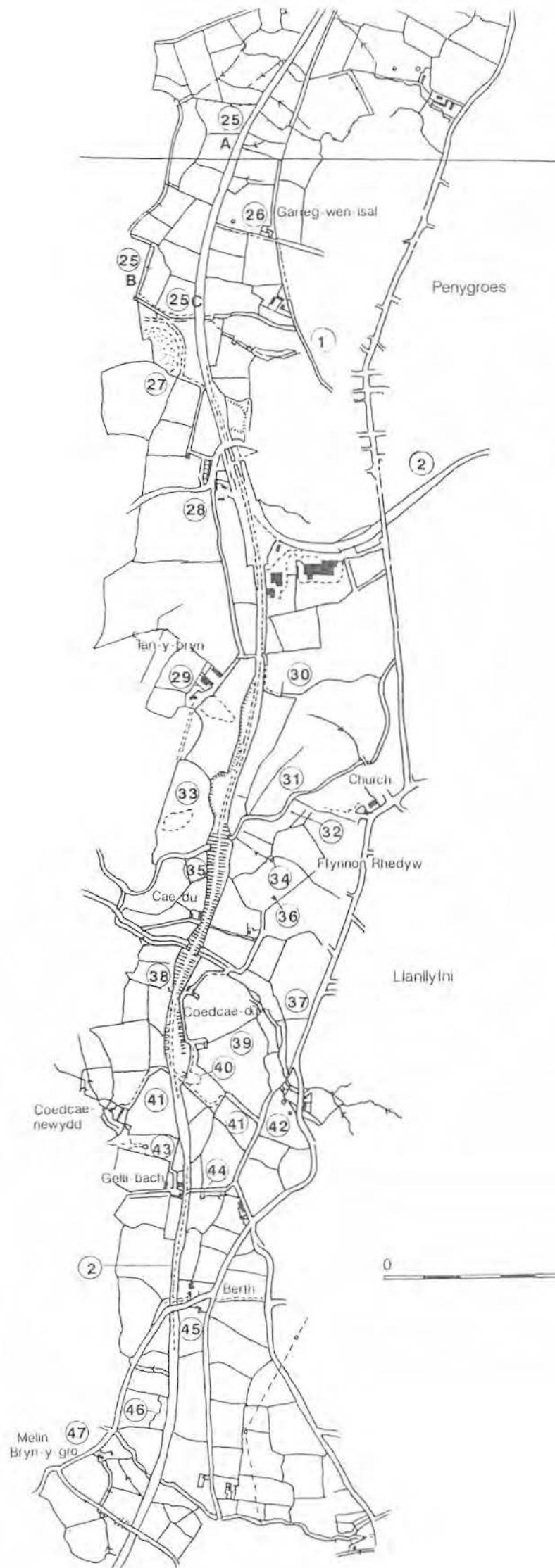
1b Tyddyn Bengam sidings, SH47075440. These are the exchange sidings operating between 1867 and 1872. The platforms and line routes are well preserved, and mark an interesting survivor of the transition from narrow-gauge to standard-gauge railways.

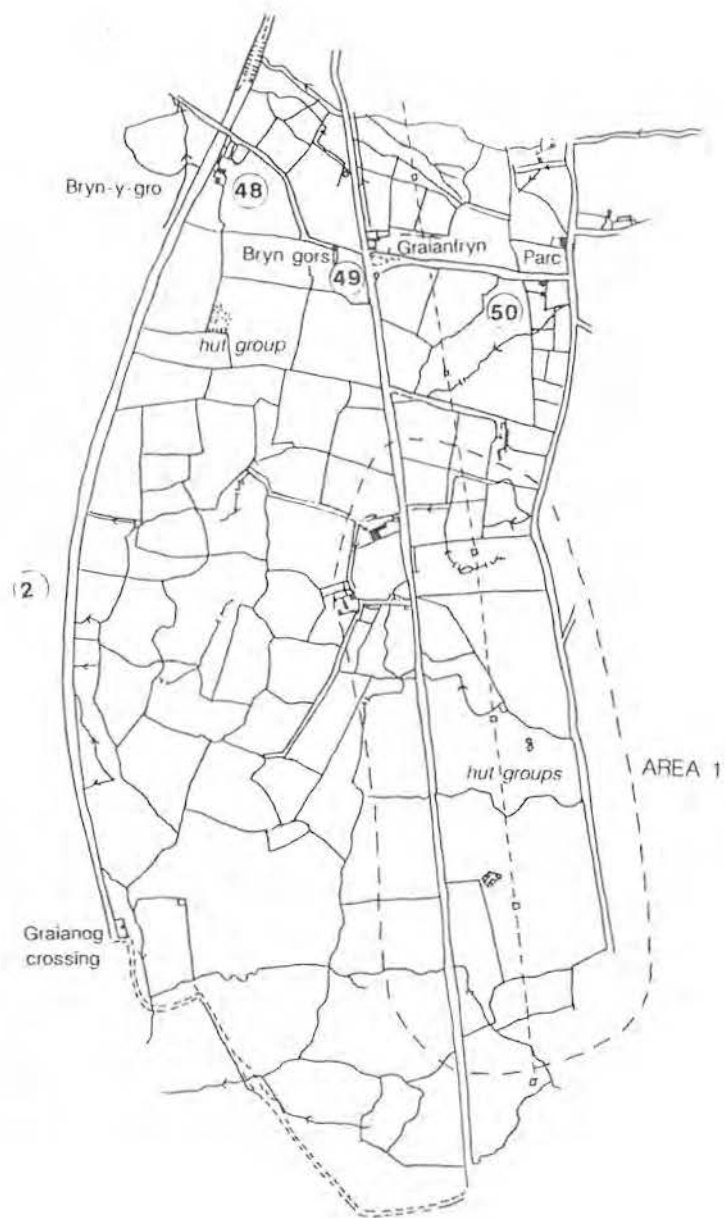
Recommendation for further assessment: *None.*

Recommendation for mitigatory measures: *The integrity of the line as a monument is heightened by the survival of its complete length, with its engineered earthworks and bridges. The removal of any single part would therefore reduce the value of the remainder. There has not yet been a thorough investigation into the surviving narrow-gauge railways, but it would appear that the Nantlle Railway had a sufficient number of unusual features (e.g. the use of the Stephenson as engineers, with the resulting late changeover to edge rail; the fact that it was the first public line in Caernarfonshire; the well-preserved engineering features, carried out by local contractors, etc.) to suggest that it would be considered by Cadw: Welsh Historic Monuments to be suitable for scheduling as a monument of national importance. The length of line surviving south of the Tyddyn Bengam exchange siding is particularly well preserved, with the original side walls and a number of rail blocks still in situ. If a representative part of the line were to be scheduled, this section would be one of the most suitable. It is therefore recommended that the proposed road works avoid damaging the Tyddyn Bengam siding and that length of line south of it as far as Garreg-wen-isaf, and also the embankment and bridge abutments by Llwyn-y-Gwalch.*

It is also recommended that the route of the road is designed to minimise its impact on the remainder of the railway, but if it is necessary to disturb any part of it, then a full survey of the area to be affected, with gradient profiles, would be considered necessary.







0 1km

2. Afon Wen - Caernarfon Railway Line Category C

The line was built in 1867 but is now disused and has been made into a cycle track (Lôn Eifion). This use has meant that the route is currently being maintained. Level crossings, bridges, culverts etc. still exist, as do some platforms, small buildings etc. (no station buildings remain in the stretch affected). The most significant of these are listed below:

- 2a Llanwnda Station SH47255765 approx. Destroyed by road improvements etc.
- 2b Level crossing on track running past Hen Gastell to Dolydd. SH47245731.
- 2c Bridge over Afon Carrog. SH47245730.
- 2d Bridge carrying farm track. SH47245713.
- 2e Bridge over minor road. SH47355638.
- 2f Culvert carrying stream under line. SH47335637.
- 2g Bridge over farm track. SH47335619.
- 2h Groeslon Station. SH47305092.
- 2i Former cattle pens. SH47265076.
- 2j Level crossing (Glynllifon Crossing). SH47095452.
- 2k Bridge over farm track. SH47005430.
- 2l Level crossing. SH46605337.
- 2m Sidings/store area, Penygroes. SH46705312.
- 2n Road bridge, Penygroes. SH46705305.
- 2o Penygroes Station. SH46715292.
- 2p Nantlle branch line (1872). SH46805280.
- 2q Bridge over farm track. SH46765249.
- 2r Bridge over Afon Llyfni. SH46655201.
- 2s Bridge over farm track. SH46615180.
- 2t Bridges over minor road and Afon Crychddwr. SH46605174.
- 2u Bridge over farm track. SH46555160.
- 2v Sidings/storage area. SH46545143.
- 2w Level crossing - farm track. SH46535141.
- 2x Bridge over farm track. SH46575110.
- 2y Bridge carrying minor road. SH46545079.
- 2z Bridge over stream. SH46505035.
- 2aa Bridge carrying minor road over line. SH46455020.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Where the railway line is to be affected, sections across it should be recorded, together with photographic and descriptive recording of any embankments, cuttings, bridges, culverts or other features affected.

3. Pond SH47305768 Category C

An unusual circular pond surrounded by trees and a wall. It appears to be in a deep hole cut across on the western side by the road, but the exposed face on this side seems to be solid rock. Possibly a former quarry pit.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

4. Hen Gastell SH47255736C Category A/C

A small promontory fort which has been damaged by levelling for farm buildings, and partly ploughed out, but of which almost half remains in a good state of preservation. One waste flint flake was collected from a molehill while visiting the site. Indications of past activity in the field just across the A499, consisting of a fairly large ditch (now filled in but visible on old maps and quite recent aerial photographs) and at least one possible lynchet (SH46965745C), may be associated with this site.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: This site should be preserved in situ. The ditch and lynchet in the neighbouring field should be recorded by photograph and description, including section drawings.

5. Track Category C

Beside the Afon Carrog, which runs from east to west across the corridor and marks the parish boundary between Llanwnda and Llandwrog, runs a track, which once crossed the railway line by level crossing. This has many of the characteristics of a well-established, ancient routeway. Some 'humps and bumps' beside the track may include a house platform, although it is possible they are just the remains of old field walls. The track forks at SH47415726, and the northern branch is walled both sides for part of its length and also appears to be of some age. At one point, close to the river, the edge of the track is revetted with large boulders, and surfaced with smaller ones; these may be part of an old surface. On the other side of the railway, the track continues past Hen Gastell (site no 4).

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description, including a section drawing.

6. Rubbing stones SH47355725 and SH47245543 Uncategorised

The stone at SH47355725 is clearly a modern rubbing stone and not a standing stone as it is unweathered and has a borehole for explosives in one recently-fractured face. The stone in the garden of Grugan-wen, at SH4724553, also appears to be a rubbing stone rather than a standing stone.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: None.

7. Ysgubor Fawr and Track SH47245712 Category C

Ysgubor Fawr is shown on the tithe map (1849) as a holding, but now consists only of earthworks. The farm track which led to it, and the bridge over the railway carrying it, remain in use, although the track is only clear near the bridge and at its eastern end, where it met the road. A small building (now gone) shown beside the track at a field corner on the 1889 O.S. 25" sheet (SH47305797 approx.) may have been a farm building belonging to Ysgubor Fawr. The 1963 O.S. 6" sheet shows the main buildings as derelict/demolished but the small building still standing and the track fenced or walled for its whole length.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: The remains should be fully recorded by measured survey, with sufficient excavation undertaken to understand the layout of the buildings, and to obtain dating evidence.

8. Field with possible features SH47335676C Category E

A small, triangular, very wet field with rough vegetation. The difficulties of trying to examine it make it impossible to say what features may be there, but there are raised and drier areas amongst the bog. One of these is a track leading round the south and east of the field; the southern corner of the field also runs into a track leading alongside the railway to the barn at Cae Ty (site no 10). There is a stone which appears to be set in the ground, rather than lying naturally, beside a drain in the western part of the field.

Recommendation for further assessment: Geophysical survey combined with trial trenching to identify the status of the features.

9. Cae Ty or Coed Du, derelict farm SH47295665 Category C

The names 'Cae Ty' and 'Coed Du', and various combinations of the two, appear on several documents where they relate to two buildings, one on either side of the railway track, between Llanwnda and Groeslon. Eventually the holding became combined with Talar-siencyn, to the south. No domestic buildings now survive at any of the three sites, and at Talar-siencyn only part of the original range of farm buildings is still extant.

This is probably the original farm house associated with the buildings on the other side of the railway line, site no 10. Completely derelict and very much overgrown, it is difficult to examine but seems to be a single-roomed building about 10 m square, constructed from massive boulders. Attached small buildings shown on old maps appear to have been reduced to rubble. The field adjoining is boggy, and a small spring flows away from the house on the west. The earliest date so far found for 'Cae Ty Du' is 1770.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

10. Cae Ty or Coed Du, derelict farm buildings SH47335662 Category C

A ruined two-roomed barn with dividing wall still standing, about 15 m long overall, the northern part being the larger. There are doorways into both parts in the west wall, and probably the east as well. A small enclosure surrounds the barn, and a second small building used to be at the south-east corner of this.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

11. Melin Llwyn-y-Gwalch SH47235752 Category C

Although the mill pond has been filled in and other details obscured, the mill building, now a house, is in good condition and, at least externally, many of its features are preserved. Another small building to the south used to support the water wheel, and may be a 17th-century structure as the mill dates back to at least 1695.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: The site is of considerable local interest, particularly as the mill may in fact date from Medieval times. Damage or destruction should be preceded by the fullest possible recording, including excavation.

12. Ty'n Bant, derelict house SH47465647 Category D

A small, ruined house, probably a farm labourer's cottage. Although now on Llwyn-y-Gwalch land, it is shown on the 1849 tithe map as being on land belonging to Hafod-y-Coed, to the north-east. It does not appear to have been a holding in its own right, and information about it is therefore very limited.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

13. Roman coin hoard, Llwyn-y-Gwalch SH47425640 Category D

A hoard of Roman coins was found during the excavation of foundations for a building at Llwyn-y-Gwalch in the 19th century. The hoard was subsequently lost, but some coins in Segontium museum which were transferred there from Caernarfon library and do not come from the Roman fort may be part of it. Their dates are 253-273 A.D.

A field just south of the farm has the name 'Cefn Gadlys' ('enclosure ridge'), and part of an enclosure can still be seen, although its character is obscured by the tipping of large amounts

of building rubble etc. in its interior. This enclosure falls just outside the corridor of interest, but clearly it may be associated with the hoard.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Any work affecting the area around the farm should be the subject of a watching brief.

14. Spring with stone surround SH47295628 Category D

A spring which rises close to the stream in a field immediately north of Talar-siencyn (but belonging to Llwyn-y-Gwalch) has some rough stone walling supporting a slate cover.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

15. Talar-siencyn, derelict farm SH47285619 Category C

Little remains of the original farm buildings (one outbuilding, and the ruins of a small cottage which was probably not the original farmhouse), but old walled enclosures, a walled track and several springs preserve some of the character of the farm.

There is a documentary reference to the holding in 1696, and it still existed as a separate entity in 1849, but at some time after this date it seems to have become amalgamated with Coed Du/Cae Ty, sites nos 9 and 10, q.v.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Full survey of the upstanding remains, with more detailed documentary research and geophysical survey/trial trenching to identify earlier buildings.

16. Grugan-wen, formerly listed building SH47485574 Category A

A small, probably 18th-century, former farmhouse, now surrounded by the village of Groeslon. Formerly listed Grade III.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: This building should remain preserved in situ.

17. Glynllifon park wall Category A

Glynllifon house was rebuilt, probably by Edward Haycock, in 1836. The wall, about 10 km long and 4 m high, surrounds the whole of the park, and dates from the same time at the latest, although it is possible that an earlier wall was raised at this time (evidence of the wall's height being increased is visible in places). Extensive repairs were carried out in 1935, and the wall remains in good condition. The house is listed Grade II*, other buildings, bridges, gateways etc. Grade II.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: This wall should remain preserved in situ. The route of the road should be designed accordingly.

18. Site of old road, alongside Glynllifon park wall SH47075540C Category D

The old turnpike road was re-routed when the Afon Wen - Caernarfon railway line was built, to avoid having two level crossings close to each other as had been the case on the old Nantlle Railway. Glynllifon park wall follows exactly the previous line of the road, of which no other sign now remains. Railway plans show the new line of the road in a different place from the route it currently follows; thus it is possible that it has in fact been moved again.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: A watching brief should be carried out on any work which affects the area of the turnpike road. Full recording, including a section, of any features revealed is recommended.

19. Aqueduct and watercourses, Grafog SH47255509 Category C

The O.S. 25" map of 1889 shows an aqueduct carrying water across the road from the stream which runs past Grafog to Inigo Jones' slate works, although it is not clear what function the works fulfilled at this time. The aqueduct is still shown, although not named as such, on the 1963 6" sheet. A piece of walling close to the stream seems to be the only remaining part of the aqueduct. There may have been a small, domestic mill-wheel at Grafog, as one of the several watercourses near the house looks like a small leat, and one of the outbuildings has what may be a small wheel-pit at one end.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

20. Lodge and gate in Glynllifon park wall SH47025452 Category A

Although the lodge is derelict and the gate is not specifically listed, both these buildings would come under the listing of the house as being within the curtilage. The garden of the lodge, although overgrown, shows a different vegetation from the surrounding park, which is forested.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: These buildings should remain preserved and protected in situ.

21. Crossing-keeper's house, Glynllifon crossing SH47085451 Category D

Although marked on the 1918 O.S. 25" sheet as 'Lodge', this building seems to have been a house for a crossing-keeper. It has been completely demolished, but as it appeared on aerial photographs taken in 1986, this must have been done quite recently. Almost nothing now remains, but its garden still exists. On the other side of the track leading to Glynllifon is a small, square 'well' - in fact an access point to the culvert flowing underneath, carrying the stream under the railway. The capstone or cover of this has been recently broken.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

22. Possible features, field near Glynllifon crossing SH47205451 Category E

At the foot of a fairly steep natural slope in the field lies a roughly rectangular platform, showing evidence of parching even in December after a wet summer. A few stones lie nearby. This may be the remains of a barn, although on the tithe map no building is shown in this position. A farmhouse is shown, however, in the same field, adjoining the road, but no trace of this could be seen on the ground.

Recommendation for further assessment: Geophysical survey, with trial trenching as necessary, to locate buildings or features.

Recommendation for mitigatory measures: The site will be reclassified following evaluation.

23. Derelict buildings, near Glynllifon crossing SH47035445 Category D

Two derelict buildings, the larger one a barn with an inserted dividing wall, and the smaller square and very dilapidated (already ruined by 1918), in a long narrow field between the railway and Glynllifon park wall.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

24. Wall forming parish boundary SH46855388C Category D

A drystone wall forming the parish boundary, and therefore probably of some antiquity. It follows a much more irregular course than other, apparently similar, walls in the vicinity, and may indicate the former presence of a field pattern consisting of smaller fields than those now to be seen.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

25. Burnt mounds Category D

Three burnt mounds are recorded in fields to the west of the Afon Wen - Caernarfon railway line, but nothing now remains of these which is visible either from the air or on the ground, the fields having been repeatedly ploughed. There is a distinct possibility that other mounds may exist in neighbouring fields which, being extremely wet, have never been ploughed, and which are currently covered with thick marsh vegetation, scattered trees etc.

3a SH46695389

3b SH46395349

3c SH46575340

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

26. Garreg-wen-isaf deserted farm SH46795360 Category C

A small farmhouse which has recently been gutted by fire. The earliest date found for the holding so far is 1771.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

27. Platform and tip site, near Penygroes SH46515320 Category C

A site marked on the current O.S. map as a tip is now waste ground, any tipped material having been removed. A steep scarp rises on the west, suggesting that before tipping, the area was in fact quarried - an idea borne out by the presence of a second disused pit in the same hill. Just south of the tip area (at the NGR given) is a platform, partly cut into the hillside and partly embanked on the down slope, which may have carried a building connected with the exploitation of this hill.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description; geophysical survey or trial trenching as necessary to identify building remains on the platform.

28. Quarry, near Penygroes SH46605280C Category D

A fairly large quarry pit, now completely grassed over and overgrown. Another small pit marked on early O.S. maps to the north is named as a gravel pit, and it is probable that all the disused pits in this area were for gravel extraction.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

29. Tan-y-Bryn, listed farmhouse and cottage SH46625242 Category A

The farmhouse at Tan-y-Bryn is a 17th-century building, listed Grade II, and there is a cottage of the same date (now an outbuilding) which was formerly listed Grade III. Another small disused quarry pit, probably for farm use, lies to the south-east of the house.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: These buildings should be preserved in situ.

30. Carved slate SH46825239 Category C

An unusual gate with carvings of faces and graffiti (some modern) on the slate surround. The older carvings are well-executed and may be 19th-century.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description. The carvings should be preserved, which could be achieved by moving to a different position.

31. Enclosure, west of Llanllyfni church SH46805210C Category E

A roughly oval platform, higher than the surrounding marshy ground, is crossed and surrounded by dilapidated field walls probably of fairly recent date, but also seems to have a partial edging of boulders which may be earlier. It is possibly the site of a Medieval or early Post-Medieval farm, or may even be an earlier church site.

Recommendation for further assessment: Geophysical survey and trial trenching to establish whether or not the platform is natural, and to locate any features.

Recommendation for mitigatory measures: This site will be reclassified following evaluation.

32. Possible standing stone, west of Llanllyfni. SH46835209 Category E

Close scrutiny of this stone was impossible due to the very boggy ground surrounding it (worsened by wet weather). It appears to be around 1.5 m high and is situated close to the river, opposite the platform (site no 31). This is an unusual setting for a standing stone, but it also seems eccentric for a rubbing stone. A third possibility is that the stone is a gatepost, marking the line of a field boundary which has now disappeared, though no such boundary is shown on the tithe map or early O.S. maps.

Recommendation for further assessment: Geophysical survey and trial trenching to identify any features around the stone.

Recommendation for mitigatory measures: This site will be reclassified following evaluation.

33. Small quarry pit west of railway SH46555204C Category D

Another small disused quarry, probably a gravel pit.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

34. Ffynnon Rhedyw holy well SH46805195 Category B

A spring associated with St Rhedyw, to whom the church at Llanllyfni is dedicated. Water from the spring used to be used for baptisms at the church. The site was described by the R.C.A.H.M.W. in 1960 as having a rectangular basin two feet deep and ten feet long to contain the water, with steps for access, the whole surrounded by a wall. Now there is no sign of any of this except for a line of rough boulders to the north; there is also a large slab above the point of issue of the spring. The whole area has been trampled by cattle.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Full recording, including excavation.

35. Small field with possible features, Cae-du SH46605195 Category E

This field has an uneven surface, particularly along the wall at its western edge, which suggests the possibility of sub-surface features. The neighbouring enclosure on the west contains rough vegetation, and it was not possible to see whether the features continue on the other side of the wall.

Recommendation for further assessment: Geophysical or measured survey and trial trenching, to locate and identify any features.

Recommendation for mitigatory measures: This site will be reclassified following evaluation.

36. Derelict barn, west of Bryn Rhedyw SH46805186 Category D

A barn, partially collapsed and almost roofless, in the same field as site no 34.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

37. Possible Roman signal station, Bryn Sisyllt SH46905163 Category E

A prominent, very flat platform which is well-sited for a view in both directions down the road passing through Llanllyfni (A487), which may follow (in part) the line of the Roman road between Segontium and Pen Llystyn forts. It has been suggested that a signal station may have been located here.

Recommendation for further assessment: Geophysical survey and trial trenching to locate and identify any buildings or features.

Recommendation for mitigatory measures: This site will be reclassified following evaluation.

38. Derelict barn, Coedcae-du SH46525163 Category D

A partly-ruined barn belonging to Coedcae-du, but on the other (west) side of the railway line.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

39. House, on site of a former building SH46625148 Category D

A new house, very recently completed, which seems to be exactly on the site of a former building shown on old maps. There is no sign of any part of the old building in the new. The status of the old building is uncertain; it is not named and does not appear to have been a farmhouse, but may have been a barn.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description of any features relating to the former building which may be revealed.

40. Small quarry pit SH46605140 Category D

A small gravel quarry, obviously used until quite recently, now partly infilled with dumped material.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

41. Two possible field systems near Coedcae-newydd Category E

41a SH46505132C This field contains at least two large but ploughed-down banks, at right-angles to each other, which may represent part of a field system preceding the present one - possibly old field boundaries, although these could not be identified on the tithe map.

41b SH46745131 This field contains two short, ploughed-down banks meeting the track at right-angles, on a north-west facing slope. They may be the remains of lynchets.

Recommendation for further assessment: Geophysical survey and a trial trench in each field, to discover the nature of the features.

Recommendation for mitigatory measures: This site will be reclassified following evaluation.

42. Bank, possible Roman road SH46805127 Category E

A slight bank can be discerned crossing the field from north to south. It appears to be on an alignment which would fit in with the suggestion that it represents part of the Roman road from Segontium to Pen Llystyn.

Recommendation for further assessment: Geophysical survey and a trial trench at right-angles across the bank to ascertain its nature and extent.

Recommendation for mitigatory measures: This site will be reclassified following evaluation.

43. Quarry, Coedcae-newydd SH46455121C Category C

The remains of a quarry, which in 1889 had an aqueduct and pumping rod, now overgrown with scrub and trees.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description, particularly of any building remains or other important features.

44. Pond and mill leat, Gelli-bach SH46625109 Category C

A small, artificial pond supplies the leat which used to turn the mill-wheel at Gelli-bach. This was a small-scale domestic mill, but the pond and leat are well preserved. There are also the remains of a small building at the north-eastern corner of the field containing the pond, and part of the wall of some old outbuildings survives west of the present house. A date of 1770 for Gelli-bach was noted, but it is probable that the farm is older than this.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

45. Derelict building, Berth SH46565075 Category D

One wall of a building marked on the 1889 O.S. 25" sheet survives as part of the wall between the field and the railway cutting.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

46. Area with walling and other possible features, Berth SH46555061C Category E

This area showed up on aerial photographs as a large circular feature bisected by the railway. On the ground, there are few identifiable features, due to vegetation and the damage done by the railway, but there are the remains of several old walls, some small platforms etc. To the

south, a very irregular field wall (the line of which continues as slight earthworks in the next field to the south) may be a remnant of an earlier field pattern.

Recommendation for further assessment: The site is unlikely to be suitable for geophysical survey, but limited trial trenching should enable features to be identified. A measured survey might be possible and if so would be a useful first step.

Recommendation for mitigatory measures: This site will be reclassified following evaluation.

47. Melin Bryn-y-Gro SH46385042 Category C

The mill pond seems to be overgrown with juncus, but the line of the leat can still be seen, and the mill buildings appear intact externally. Conversion to a house is likely to have removed most interior features.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Recording by photograph and description.

48. Bryn-y-Gro, formerly listed cottage SH46465017 Category A

The former house at the rear of the present house is probably 17th-century, and was listed Grade III.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: This building should be preserved in situ.

49. Field with possible features, Bryn-gors SH46654995C Category E

A small field south of Bryn-gors is very uneven, covered with a growth of rushes although it does not appear to be particularly wet. Some areas are raised and carry a different vegetation. In the south-east corner is a rectangular depression, possibly old peat-cuttings.

Recommendation for further assessment: Geophysical survey with trial trenching to locate and identify any features.

Recommendation for mitigatory measures: This site will be reclassified following evaluation.

50. Large rectangular earthwork, Ffordd y Parc SH46944986 Category E

This feature was visible on aerial photographs as a large L-shaped mark, and on the ground a bank with earthfast stones and different vegetation from the rest of the field could be seen. Close inspection was not possible as there was no access to the field.

Recommendation for further assessment: Geophysical survey and trial trenching to identify and, if possible, date the feature.

Recommendation for mitigatory measures: This site will be reclassified following evaluation.

Area 1: North of Caerau Category A

This is a very large area of hut groups and associated field systems, part of which is a Scheduled Ancient Monument (SAM C067). The field systems visibly extend well outside the scheduled area, and there may be many more associated features which are not immediately visible. The importance of the area as a relatively well-preserved late prehistoric to Roman period landscape should not be underestimated.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: It is recommended strongly that this area should not be disturbed by road works. Clearly the potential for altering the route of the road is extremely limited, but our recommendation would be that the improvement works stop short of Area 1, instead of extending right down to about SH46924830 as shown on the latest set of

plans supplied to the Trust. An alternative might be to construct the road in such a way that the impact is minimised, e.g. by allowing any features affected to remain undisturbed in situ beneath it.

Any areas to be covered up should be the subject of a measured survey and recording in advance. Any areas which had to be disturbed would require full archaeological investigation prior to the commencement of work. Work in the scheduled area would require Scheduled Monument Consent.

Field boundaries, tracks etc.

Minor and generally linear features such as walls and tracks have not been listed in the Gazetteer as individual sites, for various reasons including sheer weight of numbers, and the fact that the majority of them will only be partially affected, the unaffected portion remaining *in situ* as an adequate record. The necessity for archaeological recording and the possibility of mitigation are both limited. However, the patterns of fields, tracks and boundaries are nevertheless an important aspect of the historical landscape. Boundaries which coincide with parish boundaries, which are clearly cut by the road or railway or which are associated with groups of small fields may be of significant age and thus particular interest. The large, open fields characteristic of much of the route are probably of 19th-century origin, and have swept away the boundaries of many of the original small fields.

The most common type of field boundary in this area is the drystone wall, but examples of embanked walls, slate fences etc. were also noted.

Recommendation for further assessment: None.

Recommendation for mitigatory measures: Where a significant length of any field boundaries such as walls, field banks or slate fences are to be destroyed, the boundaries should be recorded as Category C sites.

Areas of unknown archaeological potential

Previous results from similar projects have shown that many sites can only be detected by excavation, particularly in areas such as this where surface indications are slight due to ploughing. Trial trenching and a continuous watching brief along the line of the route are therefore essential parts of the evaluation procedure, with potential for discovering sites which would otherwise go unrecorded.

Recommendation for further assessment: A 1 m wide trench should be dug down the length of the proposed route.

Recommended mitigatory measures: Any sites arising from the trial trenching will be allocated to categories according to their importance. A continuous watching brief should be maintained during the relevant stages of the road improvement works.

6. SUMMARY OF RECOMMENDATIONS FOR FURTHER WORK AND MITIGATORY MEASURES

Further assessment work

This section summarises the work which is recommended to evaluate those archaeological remains whose status and extent are not yet established, i.e. sites in Category E. They will be

reclassified and suitable mitigatory measures suggested following evaluation.

8.	Field with possible features	Geophysical survey, trial excavation
22.	Possible features	Geophysical survey, trial excavation
31.	Enclosure west of Llanllyfni	Geophysical survey, trial excavation
32.	Possible standing stone	Geophysical survey, trial excavation
35.	Field with possible features	Geophysical survey, trial excavation
37.	Possible Roman signal station	Geophysical survey, trial excavation
41.	Two possible field systems	Geophysical survey, trial excavation
42.	Possible Roman road	Geophysical survey, trial excavation
46.	Area with walling, Berth	Measured survey, trial excavation
49.	Field with possible features	Geophysical survey, trial excavation
50.	Large rectangular earthwork	Geophysical survey, trial excavation
	Areas of unknown potential	Trial excavation

Mitigatory Measures

This section lists the remaining sites according to category. The categorisation attempts to quantify the importance of the archaeological resource, as suggested in the 'Design Manual for Roads and Bridges' Volume 11, Section 3, Part 2.

Category A - National importance

1. Nantlle Railway
4. Hen Gastell
16. Grugan-wen
17. Glynllifon park wall
20. Lodge and gate in Glynllifon park wall
29. Tan-y-Bryn
48. Bryn-y-Gro cottage
- Area 1.

Category B - Regional importance

34. Ffynnon Rhedyw

Category C - Local importance

2. Afon Wen Caernarfon Railway Line
3. Pond
5. Track
7. Ysgubor Fawr and track
9. Cae Ty or Coed Du
10. Cae Ty or Coed Du farm buildings
11. Melin Llwyn-y-Gwalch
15. Talar-siencyn
19. Aqueduct and watercourses, Grafog
26. Garreg-wen-isaf
27. Platform and tip site
30. Carved slate
43. Quarry, Coedcae-newydd
44. Pond and mill leat, Gelli-bach
47. Melin Bryn-y-Gro

Category D - Minor and damaged sites

12. Ty'n Bant
13. Roman coin hoard, Llwyn-y-Gwalch
14. Spring with stone surround
18. Site of old road
21. Crossing-keeper's house

23. Derelict buildings
24. Wall forming parish boundary
25. Burnt mounds
28. Quarry
33. Small quarry pit
36. Derelict barn
38. Derelict barn
39. House on site of former building
40. Small quarry pit
45. Derelict building, Berth

A continuous watching brief should be maintained along the whole route during relevant stages of the work, as some sites will not be suspected until topsoil stripping reveals them, and sites identified in advance of the works may require further recording during construction.

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