

A470(T) BLAENAU FFESTINIOG TO  
CANCOED IMPROVEMENT  
ARCHAEOLOGICAL ASSESSMENT

REPORT NO. 161

Ymddiriedolaeth Archaeolegol Gwynedd  
Gwynedd Archaeological Trust

# A470(T) BLAENAU FFESTINIOG TO CANCOED IMPROVEMENT

## ARCHAEOLOGICAL ASSESSMENT (G1286)

prepared for Welsh Office Highways Directorate

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May 1995

**Gwynedd Archaeological Trust Report No. 161**

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## ARCHAEOLOGICAL ASSESSMENT

### 1. INTRODUCTION

The Welsh Office are proposing to improve the A470 Trunk road north of Blaenau Ffestiniog. An initial archaeological assessment of the proposed improvements was undertaken in 1992, and the results issued in the *A470(T) Blaenau Ffestiniog to Betws-y-coed Road Improvement - Archaeological Assessment - Preliminary Stages 1 and 2 Report for the Welsh Office Highways Directorate*. This 1992 report has now been updated to take account of changes to the improvement and the requirements of the Design Manual For Roads and Bridges Volume II.

The extent of the area of interest has been taken as a strip 400m wide centred on the proposed route, to include the roundabout and alterations to existing side junctions. The proposed scheme starts at Rhiwbryfdir with a new roundabout at the existing junction at Salem Place and runs close to the line of the existing A470(T), bypassing to the east of the hamlet of Tal-y-waenydd, and straightening several bends to the northern end of the scheme.

The route largely encroaches upon upland mountain pasture, and areas of industrial land, associated with the slate quarries of Llechwedd and Gloddfa Ganol. An area of afforested land is affected around the entrance to the Llechwedd Quarry and at the north of the scheme, at Cancoed. Over a third of the scheme lies within the boundaries of the Snowdonia National Park.

The proposals are to be accompanied by an Environmental Assessment, which is being prepared by Wyn Thomas and Partners for Gwynedd County Council's Highways and Transportation Department. 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

A report was requested from Gwynedd Archaeological Trust, to assess the likely archaeological impact of the proposals and to recommend mitigatory measures.

The 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 any other areas of archaeological interest to be identified. Measures to mitigate the effects of the road scheme on the archaeological features were to be recommended.

In addition, the assessment was to be carried out in accordance with the *Design Manual for Roads and Bridges Volume 11, Section 3, Part 2, Cultural Heritage, June 1993 (incorporating amendment number 1, August 1994)*.

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 land-take 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 400 m corridor should be notified to the Trust as soon as possible.

### **3. METHODS AND TECHNIQUES**

#### **3.1 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 and Dolgellau. Aerial photographs of the route were examined during the previous archaeological assessment of 1992.

#### **3.2 Field Search**

The field search was undertaken on 31 March and 3 April 1995. The whole length of the preferred route was walked where possible, and the rest of the corridor was either walked or observed from neighbouring fields, paths etc. Conditions were generally fine for fieldwork, though a proportion of the land was extremely boggy. The light condition was average for the time of year.

Sites identified were marked on copies of 1:2,500 plans 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 ones. Photographs were taken of all potential sites identified.

#### **3.3 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 (Wales): Archaeology and Planning.

#### **3.4 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.

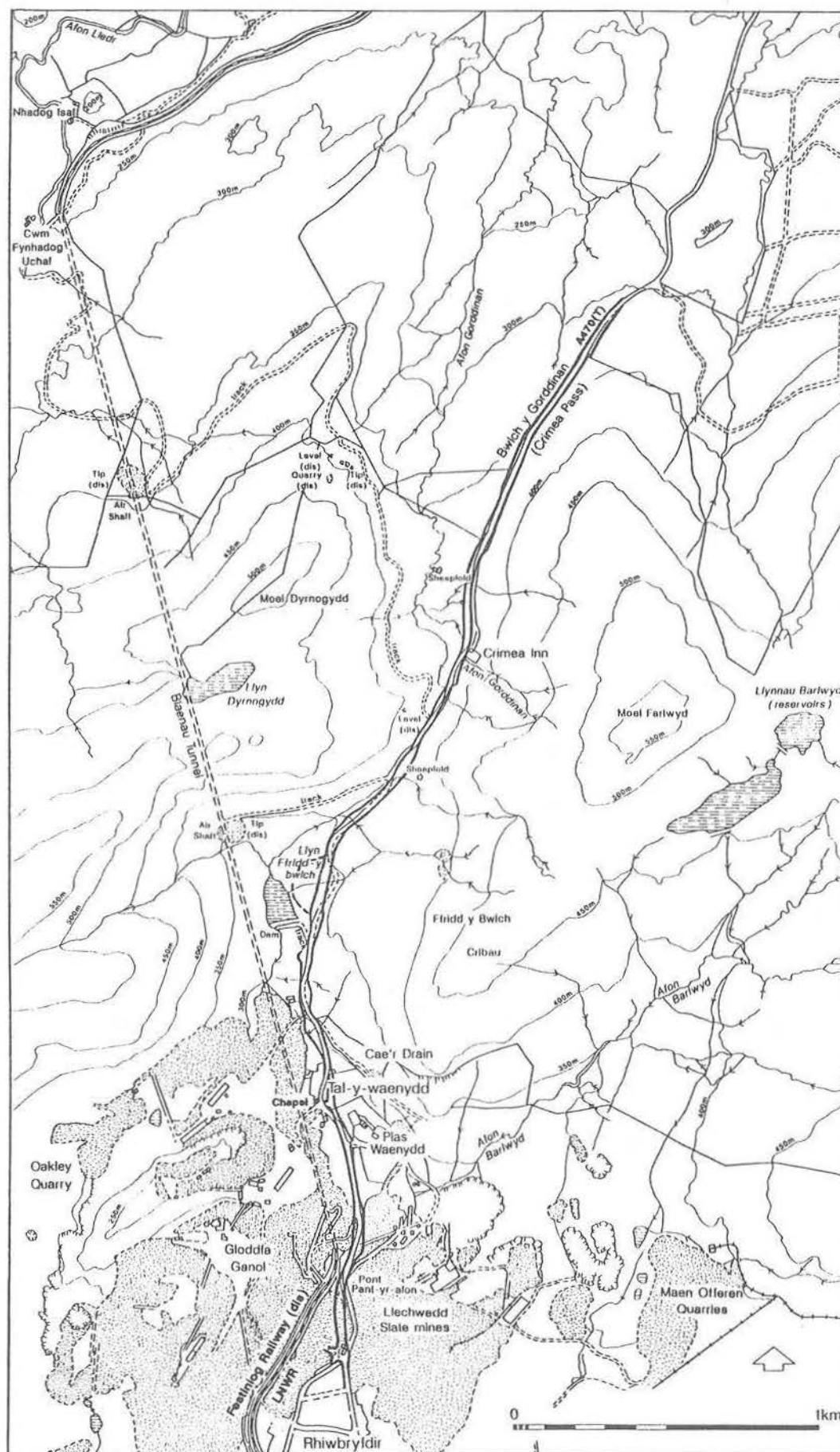


Fig. 1 Location plan - showing improvement corridor.

*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.

### **3.5 Definition of Impact**

The impact has been defined as none, slight, likely or considerable as follows:

*None:*

There is no improvement or construction impact on this particular site. (Sites identified as of particular importance are, where possible, avoided by the improvement proposals. Such sites have been identified in the tables).

*Slight:*

This has generally been used where the impact is marginal and would not by the nature of the site cause irreversible damage to the remainder of the feature, *e.g.* a slate quarry or a track at right angles to the A470(T).

*Likely:*

In some instances the site in question would not fall within the widened section of road but would fall within the construction area and therefore may subject to its nature be removed or damaged.



*Considerable:*

The total removal of a feature or its partial removal which would effectively destroy the remainder of the site.

### **3.6 Definition of Mitigatory Recommendations**

The alignment of the proposed improvement avoids as far as possible sites of archaeological interest. Where a site is affected, mitigation measures will be included in accordance with current Welsh Office Highways Directorate policies for the rescue archaeology.

For the purposes of this report the mitigation and rescue archaeology proposals as suggested by Gwynedd Archaeological Trust have been summarised as:

*None:*

No impact so no requirement for mitigation measures.

*Detailed recording:*

Detailed recording requires a photographic record, surveying and the production of a measured drawing prior to the commencement of the works on site.

Archaeological excavation works may also be required depending upon the particular feature and the extent and effect of the impact. Some of the sites would require dismantling by hand, to provide a detailed record of the method of construction and in the case of a listed structure, the salvage of materials for re-use and re-building.

*Recording by photograph and description:*

Recording by photograph and description requires a photographic record and survey work prior to the commencement of works on site. A measured drawing may be required in certain cases.

*Watching brief:*

At the commencement of the improvement works on site, all sites affected by the works would need to be observed up to the end of the contract period.

## **4. ARCHAEOLOGICAL FINDINGS AND RECOMMENDATIONS**

### **4.1 Introduction**

Archive material consulted during the desk-top study provided dating evidence for known sites (e.g. Holland's Quarry - 1827, Llechwedd Quarry - 1846, Crimea Road - 1846-56, LNWR line opened 1879), and maps of successive dates allowed an appreciation of the development of the landscape. Estate maps and papers, though including deeds dating to the early Post-Medieval period, were predominantly of relatively recent date. Ordnance Survey map coverage of the area was limited with only partial 1:25000 coverage available, due to the predominantly upland nature of the area. Only the boundaries of the farms were shown on the Tithe maps of the area, and no information as to the extent, nature and names of individual fields was available.

Lists supplied by Cadw: Welsh Historic Monuments gave information about listed buildings and scheduled ancient monuments. There are no scheduled ancient monuments or listed buildings in the area of the scheme.

The larger part of the area walked in the course of the fieldwork was enclosed, upland sheep pasture, the remainder was the industrial landscape brought about by 19th and 20th century slate quarrying. The majority of features of archaeological or historical interest within the area were remains associated with the slate industry or the transport/communications infrastructure developed to service the industry and the developing urban centre of Blaenau

Ffestiniog. This area has seen frequent development since the early 19th century and the limited survival of early features may in part reflect this.

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 65.

## **4.2 The Archaeological Background**

### *4.2.1 Prehistoric and Roman (up to 400AD)*

There are no known settlement or burial sites of the prehistoric period within the corridor of interest. In an upland area such as this remains of funerary and ritual sites dating from the Bronze Age would be expected. Usually the most common are cairns and standing stones, however the amount of later development associated with the slate industry has much reduced the survival rate of such monuments in the surrounding area.

There are no known Roman sites within the corridor; the nearest site of this period is the Roman road of Sarn Helen which passes through the neighbouring valley of Cwm Penamnen, further to the east. Likewise there is a paucity of settlement remains in the area, with settlement apparently concentrated further south at Tan-y-grisiau, to the east in Cwm Teigl and to the north in the Lledr valley.

### *4.2.2 Medieval (400AD - 1485AD)*

Settlement during the Medieval period is poorly documented and not well represented on the ground. The area straddles the *cantrefi* of Dunoding and Arllechwedd and is divided between the Commotes of Ardudwy-is-Artro and Nantconwy. The land lies at the then sparsely inhabited and remote upland borders of two Medieval townships: Ffestiniog and Dolwyddelan. There are no known sites of the period within the area of interest, the nearest lying in the Lledr valley to the north, most notably the late 12th century Welsh Royal castle at Dolwyddelan, the earthwork castle of Tomen Castell and the church of St. Gwyddelan dating to circa 1500. Further settlement is found in the vicinity of the village of Llan Ffestiniog.

There is a vague and unsubstantiated reference to a monastic association in the 19th century publication *Hanes Plwyf Ffestiniog* by William Jones (Ffestinfab), which refers to a stone reputedly located in the wall of the old house at Maenofferen, to the south east of the area. The association probably comes from the spurious corruption of the original name Maen-y-Fferam (stone of the farm) to Maenofferen or 'Offering stone'; no documentary evidence has come to light.

### *4.2.3 Post-Medieval and later (1485AD to the present day)*

Prior to the industrial revolution and at least from the early 17th century the land in the corridor of interest appears to have formed part of the extensive upland sheep pasture in the hands of two large estates: Gwydir and Tan-y-bwlch. Many of the agricultural remains in this area are probably to be associated with the increase in upland sheep farming during the 18th century.

Large estates continued to dominate the area well into the 19th century with the majority of the land within the parish of Ffestiniog remaining in the hands of the Oakeley family of Tan-y-bwlch. The remainder of the land in the parish, Ffridd-y-bwlch, is shown on the Tithe apportionment to have been held in trust for the late Richard Parry Esq; the land within the parish of Dolwyddelan is recorded as being a plantation, then part of the estate of Lady Jane Silence Erskine.



#### *4.2.4 Roads, rail and industry*

The advent of the slate industry at the start of the 19th century was to have a marked affect on the region, and was to transform the rural nature of Blaenau in particular. There are numerous slate quarries in the area, for example: Gloddfa Ganol; Holland's; Llechwedd; the Welsh Slate Company; and Oakeley (an amalgamation of Hollands and Gloddfa Ganol).

The earliest of these quarries was that of the Welsh Slate Co., opened in 1818 by Samuel Holland and sold to the Welsh Slate Co. in 1825. Of particular interest is a steam mill of 1844, one of the first in the district, and the complex transport system of water balanced inclines and a vertical water balanced lift. In 1838 the quarry was connected to the Festiniog Railway by an incline. Following legal action over damage resulting from a serious fall, the Welsh Slate Co. was taken over by the Oakeley Quarry in 1888.

The Oakeley Quarry was an amalgamation of Gloddfa Ganol (Middle or Mathews quarry) and Holland's (Upper) Quarry, which came into being in 1878. Opened in 1830, Gloddfa Ganol is thought to have expanded on earlier workings associated with the Rhiwbryfdir Slate Company. From 1840 the quarry became a substantial undertaking, with the expansion of its underground workings. The quarry is noted for its early introduction of steam power for both mills and winding machinery and its introduction of the Matthews slate trimmer (1852). The quarry's transport system, linked by incline to the Festiniog Railway, included a number of gravity and powered inclines. Water balances were also in use at the quarry. Holland's Quarry was opened in 1827 by Samuel Holland the younger after the sale of their earlier workings to the Welsh Slate Co. As at Gloddfa Ganol there was a substantial expansion of the underground workings after 1840 and a mill powered by steam (1860). Among the industrial remains from the Holland's quarry is the impressive 1000 yard long "Horse Tunnel" which connected the inclines to the mill.

The remains of the Llechwedd Slate Quarry extend over a substantial area east of the road between Rhiwbryfdir and Tal-y-waenydd. Opened in 1846, Llechwedd was soon to become one of the largest underground quarries in the district, with 20 miles of tunnels. Of the many innovations made at Llechwedd the Greaves trimmer of 1856 is of particular importance becoming the standard for the industry. From 1852 highly mechanised mills were established, extensive use being made of water power prior to electrification in 1891. In 1854 the Llechwedd Quarry was connected by an incline to the Festiniog Railway system.

Closely allied to the industrial background is the development of communications. The Ffestiniog area was considered a remote quarter of the county till the late 18th century, and lines of communication remained extremely backward up to the mid 19th century, even though the slate industry had lead to an influx of population into the region.

A dichotomy is noticeable in the early development of communications in the area with the slate industry transporting materials by river to the Glaslyn estuary and the population, whose nearest source of supply was Llanrwst, using either a lengthy route via Penmachno or the often impassable narrow track over Bwlch Gorddian.

The transporting of industrial products was much improved in 1821, when the port of Portmadoc (Porthmadog) was created. Slate was already being exported from the port by 1824. Several unsuccessful Bills were introduced to obtain a rail link to the slate producing area of Blaenau Ffestiniog. Finally, in 1832 the Festiniog Railway Bill was passed and in 1836 the Festiniog Railway was opened. The line was initially gravity and horse worked, steam traction being introduced in 1863 to cope with increased traffic.

Road transport was a different matter. It is known that negotiations to construct a new road between Blaenau Ffestiniog and Dolwyddelan were under way by 1846, and construction went on from 1854 to 1857. A new inn was erected on the pass shortly after the completion of the road; its name commemorated the recently concluded Crimean war. However, from contemporary accounts it would appear that the state of the road soon declined. In 1864 the Portmadoc and Beaver Pool Turnpike Trust was set up to oversee the continued construction and maintenance of roads in the area, including the road between Blaenau Ffestiniog and Dolwyddelan. The Turnpike Trust was finally abolished in 1886.

Work was begun on the Blaenau tunnel for the standard gauge LNWR (London and North Western Railway) in 1876. The tunnel opened to traffic in 1879, with a temporary station situated at the Blaenau end of the tunnel. The temporary terminus was replaced by the Llechwedd exchange sidings with the Festiniog Railway in April 1881. The latter development enabled the Llechwedd Quarry to send its products either by the Festiniog railway to Portmadoc, or by the LNWR and the Chester main line.

#### *4.2.5 Conclusions*

Little is known of the pre-industrial archaeology of the immediate area of interest; documentary evidence is largely inconclusive. The destructive nature of slate quarrying is partly responsible for the poor survival of early remains, in what had probably been a sparsely populated area.

The area is rich in industrial features associated with the slate industry and is particularly important in the development of the technology employed in the industry. Also of note is the wealth of remains which serve to illustrate developments in communications associated with the needs of industry and increasing population during the 19th century.

### **4.3 Gazetteer of Archaeological Sites**

The gazetteer is divided into two parts: in the first part are those sites (1-41) which are likely to be directly affected by the construction of the proposed road improvements, and this part of the gazetteer contains recommendations for further work. Where the works require evaluation before full mitigatory measures can be decided upon, the recommendations are for further evaluation, the results of which will allow appropriate mitigation measures to be recommended. Where the information is considered sufficient, mitigatory measures are suggested. A summary at the end of the gazetteer lists the sites according to their allocated category. Many of the sites identified within the corridor are of local interest only, but nonetheless form an intrinsic part of the cultural landscape. It is recommended that these sites are recorded at a level sufficient to allow future students of the landscape to be aware of the existence and nature of the features concerned.

The second part of the gazetteer lists those sites (Nos 42 - 65) which lie in the study area and which are identified as being of archaeological or historical interest, but are unlikely to be affected by the road improvements.

#### *4.3.1 Sites which are likely to be affected by the proposed road improvements.*

##### **1. London House and three 19th century cottages - Rhiwbryfdir SH69714658 and SH69724660**

##### *Category C Impact: Considerable*

London House and an adjacent terraced dwelling to the south side of Salem Place. London House has white washed elevations of stone rubble masonry under pitched slate roof, with a large lateral chimney stack. Also affected are two semi-detached and one detached, double-fronted 19th century cottages (Lletty'r Allt, Llys Deudreth and Adwy-goch) situated on the north side of Salem Place, Rhiwbryfdir. The buildings are of stone, one with rendered elevations, under pitched slate roofs. The rearmost (ie. north-western) of the cottages appears to retain original features, such as windows and internal fittings.

To the east of the latter are the remains of a further building in the angle of the yard. This, constructed of slate rubble and now roofless, may also have been a dwelling.

##### *Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Recorded by photograph and description, to include a survey of London House and of one (ie. the north-westernmost building) or more of the other buildings prior to demolition.

## **2. Area of linear tips SH69684672C**

*Category D Impact: Slight*

An area of linear slate tips surrounding a modern industrial building. The area is the site of the Glan-y-don mill and tips, associated with the Oakeley Quarry and formerly reached by viaduct over the (LNWR) railway line. Late 19th/early 20th century maps show a number of dressing sheds in the area; however, little of interest remains - the site has subsequently been levelled.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Examine any surviving remains uncovered during the continuous watching brief as outlined below in the section Areas of Unknown Archaeological Potential.

## **3. Llechwedd exchange sidings and power house SH69704685C**

*Category A Impact: Considerable*

This is an important complex of industrial structures and transport systems. The area bridged by the existing A470(T) encompasses the Llechwedd exchange sidings, the Llechwedd Quarry incline, and a hydro-electric power station. There are three bridges under the road; counting from north these are:

- 1) Incline connection from Llechwedd to Festiniog Railway.
- 2) Afon Barlwyd bridge.
- 3) Feeder line from Llechwedd Quarry incline to LNWR exchange sidings.

The Llechwedd quarry incline forms part of the Festiniog Railway feeder system. The Festiniog Railway is of great importance in the development of narrow gauge railways in both Britain and abroad.

The exchange siding is one of only two surviving examples of a system for exchanging goods from a narrow gauge to a standard gauge railway. All other examples have now been destroyed, except that at Minffordd, which has been considerably altered. This is the only example to retain the 2ft gauge rails, a crane, weighing machine and storage sheds.

The hydro-electric power house, built 1904, is a very rare survivor of a direct current generating station.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** It is recommended that the site is preserved *in situ*, and that the three bridges are retained as essential features of the site. The removal of these links would affect the archaeological integrity of the remainder of the site. It is recommended that the area of the exchange sidings, including the weigh house, stockyards, 2ft gauge rails and cranes should not be disturbed. However, should disturbance be unavoidable, then the features affected should be fully recorded by photograph and measured survey.

## **4. Footpath SH69724681 - SH69894699**

*Category D Impact: Slight*

A paved and stepped footpath built of now well worn slate slabs laid lengthwise into the slope of a slate tip. Access from the present B470(T) to the Llechwedd Quarry mill and quarry workers dwellings to the east above Pont Pant-yr-afon is provided by the path, which dates from the latter half of the 19th century.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and written description prior to the start of any works.



**5 & 5a. Road revetment, Crimea Road (at various points along the length of the A470 road) in particular around SH69764696 and SH70184922**

*Category C Impact: Considerable*

The existing trunk road in this area probably dates from the days of the Porthmadoc and Beaver Pool Turnpike Trust, set up in 1864. Its construction, most notably the impressive dry stone revetting in the area around Pont Pant-yr-afon, is an interesting example of 19th century engineering.

**Recommendation for further assessment:** *None.*

**Recommendation for mitigatory measures:** This feature should be recorded fully by photograph and its construction investigated, the latter could be carried out as part of the watching brief once works have begun.

**6. Afon Barlwyd culvert SH69774705 - SH69774696**

*Category C Impact: Considerable*

This culvert carries the Afon Barlwyd a short way immediately adjacent to the east side of the main road, just north of Pont Pant-yr-afon. The partially covered, stone and slate constructed culvert probably dates from after 1864 and the reconstruction of the road under the Portmadoc and Beaver Pool Turnpike Trust. The culvert indicates that a slight realignment of the river was necessary at the time, its original course probably lay beneath and slightly west of the road.

**Recommendation for further assessment:** *None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**7. Slate tip - Llechwedd Slate Quarry SH69804703C**

*Category C Impact: Likely*

Slate tip east of the road belonging to the Llechwedd Slate Quarry. The tip is smaller than the slate tip to the south (47), but also shows clear tipping lines and carries structures, most notably a counter balance incline.

**Recommendation for further assessment:** *None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**8. Retvetting/walls along stream - Tal-y-waenydd SH69774711 - SH69764721**

*Category D Impact: Slight*

Two parallel dry-stone walls, running approximately north-south, in forestry just to the east of the road. The walls act as revetting to contain the small stream, which apparently issues from Llyn Ffridd-y-bwlch as it passes through the grounds of Plas Waenydd. Here, as with site (6) - the Afon Barlwyd culvert, it is likely that the feature represents the containment and realignment of an earlier stream course associated with the construction of the 19th century turnpike road.

**Recommendation for further assessment:** *None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**9. Graffiti covered stones - Tal-y-waenydd SH69664739 and SH69674738**

*Category C Impact: Likely*

In the base of the wall opposite Ty Mawr, ie. on the east side of the road are two large stones bearing initials and dates. The southernmost has been used to anchor a metal fence stay.

**Recommendation for further assessment:** *None.*

**Recommendation for mitigatory measures:** The positions of the stones should be surveyed and the inscriptions recorded by photograph and transcription. The stones could then be moved to a new, suitable location if needed.

**10. Field barn - Tal-y-waenydd SH69674752**

*Category C Impact: Considerable*

A 19th century field barn standing immediately east of the existing A470(T), opposite Oakeley terrace. Constructed of random rubble - boulders and slate slab under a slate roof, the structure is of three bays open to the east. Its western elevation has three ventilation slits, a further one is in the north gable and the south gable holds the entrance to the loft area.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** The building should be surveyed and recorded by photograph and written description.

**11. Retaining wall - entrance to Gloddfa Ganol Quarry SH69604769**

*Category D Impact: Considerable*

A dry-stone (slate slab) constructed, battered retaining wall on the south side of the entrance to the Gloddfa Ganol Quarry. The feature delineates the south end of an area of tipping (12), which extends as far as the buildings of Bryntirion. An entrance to the Gloddfa Ganol Quarry now utilises the area, since levelled, to gain access from the main road to the opposite side of the valley. The feature is not shown on the Ordnance Survey map of 1918 and is likely to be relatively modern.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** This site should be recorded by photograph and description.

**12. Linear tip - S of Bryntirion at SH69594772 - SH69584775**

*Category D Impact: Considerable*

A now levelled area of linear tipping and infill, which extends south of Bryntirion as far as the entrance to Gloddfa Ganol. The feature appears to date from after the first World War.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**13. Dry stone field boundary - Bryntirion SH69584776**

*Category D Impact: Slight*

A short length of dry-stone boulder wall running west from the main road, disappearing beneath slate tips beyond Bryntirion. The feature is shown on a quarry map of 1870, but is probably older.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**14. Road side quarry scoops SH69594778**

*Category D Impact: Considerable*

Two small shallow road side quarry scoops, now grassed over. The features are situated immediately east of the main road opposite Bryntirion.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**15. Track to Ffridd-y-bwlch Reservoir SH69614792 - SH69584801**

*Category D Impact: Slight*

The access track to the reservoir of Ffridd-y-bwlch from the main road. The reservoir appears on the OS map of 1843, though the first cartographic representation of the track is c.1870 on a quarry map held at Dolgellau archives.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by Photograph and description.



**16. Short length of track SH69644802**

*Category D Impact: Considerable*

A short length of slightly sunken track lying immediately east of the main road. The track has subsequently been quarried through, but enough remains to suggest that it may be a continuation of the pre-turnpike track. This pre-turnpike route appears on the John Evans map of 1792 and the OS 1" map of 1843, though only its southern most section is shown on the OS 1:25000 of the early 20th century. The feature is identifiable now as a foot path/track which runs north-east of Plas Waenydd via the ruin of Cae'r-drain towards the main road just south of Bryntirion, it then runs to either side of the present main road as it descends the pass.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Survey and record by photograph and description.

**17. Sub-rectangular scoop SH69694820**

*Category E Impact: Likely*

A small sub-rectangular scoop, probably an old road side quarry scoop, but might be the remains of a structure. Possible entrance in south side.

*Recommendation for further assessment: Trial excavation to establish exact nature of site.*

**Recommendation for mitigatory measures:** To be established following further assessment.

**18. Small quarry SH69694823**

*Category D Impact: Considerable*

Small road side quarry shown on the 1918 Ordnance Survey map.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**19. Slate dump SH69704839**

*Category D Impact: Considerable*

A small dump of slate material just west of the road. There are a number of iron fence rails protruding from the dump suggesting that the feature was once fenced off. It is possible that the feature represents the remains of a trial pit, now infilled.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**20. Tip or dump, Esgidiau Meirw Approximately SH69924848**

*Category D Impact: Considerable*

A low heap of slate waste lying to the east of the present main road. The tip is covered with the rusted metal fittings of a large number of hob nailed boots, and other small metal waste, including nuts and bolts. There is also a significant quantity of a fine silty material - possibly the residue of burnt and decayed leather. On top of the mound is a slate *grave slab* with a pair of boots incised upon it and the inscription "Esgidiau Meirw" (dead shoes). The feature is thought to be a World War II army boot dump.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and description and relocate memorial stone.

**21. Remains of old stone wall SH69904850**

*Category D Impact: Considerable*

The very slight remains of a boulder wall leading to the rectangular enclosure (22), but probably predating it.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** This site should be surveyed and recorded by photograph and description.

**22. Rectangular enclosure SH69914852**

*Category D Impact: Considerable*

A dry-stone rectangular enclosure, roughly constructed of boulders. The structure abuts the revetment of the road, and uses it as its western side. However it is possible that the dry stone walling closest to the road has been remade and the relationship of the feature to the road is therefore uncertain. There is an entrance in the east end of the north wall. The enclosure is probably associated with another sheepfold further to the east, site (56).

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**23. Old field boundary SH69925855**

*Category D Impact: Considerable*

Disused dry-stone field wall running south of the present fence line between the road and the sheepfold and converted building (56).

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Recorded by photograph and description.

**24. Small roadside quarries SH70004862**

*Category D Impact: Considerable*

A series of small road side quarries immediately east of the road. Probably of fairly recent date.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**25. Small circular feature SH70014863**

*Category E Impact: Considerable*

A small circular, very slightly 'D' shaped low embanked feature located slightly above and east of the present road. The site is probably a hut circle, though the defensive position in relation to the road at the head of the pass could suggest a more recent military purpose.

*Recommendation for further assessment: Trial excavation to establish exact nature of site.*

**Recommendation for mitigatory measures:** To be established following further assessment.

**26. Track - S of Crimea Inn SH70014862 - SH70124886**

*Category D Impact: Slight - Considerable*

A fairly level remaining length of trackway running north-east on the east side of the present main road from near the small circular feature (25) to a point just south of the remains of the Crimea Inn (31), where it appears to be cut by the present main road, and continues (as site 30) west of the main road due north towards the banks of the Afon Gorddinan. The track is likely to be part of the original pre-turnpike route over Bwlch Gorddinan, several stretches of which survive (sites 16, 26, 30, 34, 35, 52).

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** This site should be surveyed and recorded by photograph and description.

**27. Peat cutting SH70004866**

*Category D Impact: Slight*

A large linear peat cutting, ranging north-west from the main road towards the disused level (56) at Bwlch Gorddinan.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** This site should be surveyed and recorded by photograph and description.

**28. Revetted trackway at SH70024868**

*Category C Impact: Slight*

An impressive revetted trackway giving access to the slate quarry of Chwarel Gethin and one of the air shafts of the LNWR Railway tunnel. The track was built as a traction engine track to one of the shafts used in the excavation of the LNWR Railway tunnel to Blaenau Ffestiniog (opened in 1879). Between 1874-1878 Owain Gethin Jones took advantage of the new road associated with the construction of the tunnel and took out a lease on the slate quarry, known since as Chwarel Gethin.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**29. Small slate dump SH70074899**

*Category D Impact: considerable*

Small slate dump to the west of and near the road.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** Record by photograph and description.

**30. Possible trackway approximately SH70114883 - SH70124892**

*Category D Impact: slight*

Possible continuation of pre-turnpike trackway, site 26, as it crosses west of the road towards the Afon Gorddian.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** This site should be surveyed and recorded by photograph and description.

**31. Remains of Crimea Inn SH70154890**

*Category C Impact: Slight*

The remains of the Crimea Inn are clearly visible, though partly obscured by demolition material. The building appears to have been 'L' shaped in plan and sits within the north-west angle of a rectangular compound. The compound wall is mortared in the vicinity of the Inn, though elsewhere is of dry-stone construction. It is thought that the Inn was established soon after the completion of the improved road of c.1854 - 1857, gaining its name from the Crimean Campaign of the time. Mention of the Inn is found in a traveller's account published in the *North Wales Chronicle* of November 1863, which also confirms the poor state of the road at the time. It appears on a map of the road drawn in 1864, and the OS map of 1886.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** The site should be surveyed and recorded by photograph and description. Care should be taken to ensure that no accidental damage occurs to that part of the site not affected. The fencing-off of the site is recommended.

**32. Slate turnpike milestone SH7014892**

*Category D Impact: Considerable*

A slate milestone slab located on the west side of the road opposite the Crimea inn. The stone dates from the days of the Tremadoc and Beaver Pool Turnpike Trust, founded in 1864.

*Recommendation for further assessment: None.*

**Recommendation for mitigatory measures:** The milestone should be recorded by photograph in its original position and relocated to an appropriate nearby location.

**33. Embanked curvilinear feature SH701544909**

*Category E Impact: Considerable*

An embanked semi-circular shallow ditch-like feature, possibly part of a pre-turnpike trackway or a relatively recent drainage feature, its exact nature is unknown. What may possibly be a cairn stands close by to the west.

**Recommendation for further assessment:** Trial excavation to establish exact nature of feature(s).

**Recommendation for mitigatory measures:** To be established following further assessment.

**34. Trackway SH70174921 - SH70074906**

*Category D Impact: Slight*

Trackway running south-west from an area of revetting on the main road (site 5a). Discontinuous remains of boulder faced banks delineating the course of the slightly sunken trackway are visible in places. This is probably a further remnant of the pre-turnpike route over Bwlch Gorddinan.

**Recommendation for further assessment:** None.

**Recommendation for mitigatory measures:** This site should be surveyed and recorded by photograph and description.

**35. Trackway approximately SH70194923 - SH70274940**

*Category D Impact: Slight*

The continuation of site (34) east of the main road running north-east, passing a number of old quarry scoops (sites 36 and 61). At its southern end the track appears to be delineated by the much robbed remains of boulder banks or walls. Beyond site 61 the track is less clear and at least two alternative routes are discernible as it approaches the main road near site (36).

**Recommendation for further assessment:** None.

**Recommendation for mitigatory measures:** This site should be surveyed and recorded by photograph and description.

**36. Two small road side quarry scoops SH70284942**

*Category D Impact: Likely*

Two very small grassed over quarry scoops, east of the main road (see site 35).

**Recommendation for further assessment:** None.

**Recommendation for mitigatory measures:** Record by photograph and description.

**37. Dry stone field boundary at SH70194926**

*Category D Impact: Slight*

A largely well preserved field wall which extends east from the A470(T) road. The wall was possibly built during the late 17th or early 18th century. Close to the dry stone revetted road embankment only the footings of the wall remain. The wall may have been dismantled to build or repair the neighbouring road.

**Recommendation for further assessment:** None.

**Recommendation for mitigatory measures:** Record by photograph and description.

**38. Track approximately SH70314953 & SH70334958 - SH703-497-**

*Category D Impact: Slight*

A track running north from the west side of the main road and shown on an OS map of 1920. The track is cut into the slope and forks where it meets the main road. Again this is possibly a section of the pre-turnpike road between Blaenau Ffestiniog and Dolwyddelan.

**Recommendation for further assessment:** None.

**Recommendation for mitigatory measures:** Record by photograph and description.

**39. Possible settlement and track SH70454980C**

*Category E Impact: Likely*

At least one small hut scoop, possibly more situated on a slight terrace west of the road. A sunken trackway, running due north and parallelling the nearby stream, delineates the western edge of the terrace.



**Recommendation for further assessment:** This area should be investigated by geophysical and trial excavation to establish the nature and extent of any remains.

**Recommendation for mitigatory measures:** To be established following further assessment.

**40. Small quarry and sheepfold SH70554989**

*Category D Impact: Slight*

A late 19th/early 20th century wooden fence and wire sheepfold, incorporating corrugated iron. To the immediate west of the sheepfold and close to the road is a small disused stone quarry.

**Recommendation for further assessment:** None.

**Recommendation for mitigatory measures:** Record by photograph and description.

**41. Old field wall/bank SH70594998 - SH70574995 - SH70455001**

*Category D Impact: Slight*

The remains of a disused field wall and bank, located just west of the road, north of site (65). Possibly depicted on the Tithe map for the Parish of Dolwyddelan of 1840, though is probably older.

**Recommendation for further assessment:** None.

**Recommendation for mitigatory measures:** This site should be surveyed and recorded by photograph and description.

**Field boundaries Category D**

The pattern and nature of field boundaries are an important part of the historic landscape. Their construction, linear plan and ecological diversity can provide valuable information about the landscape and its evolution.

The most common types of field boundary in this area are low earth and stone banks topped by the remnants of mixed deciduous hedges, notably birch and blackthorn or simply modern sheep wire. Examples of dry stone walls of boulders and cut industrial slate were noted. Slate fences were noticeable for their scarcity along the corridor of the route; the only wired slate fencing found to be affected by the scheme is a short stretch south of the track leading to Llyn Ffridd-y-bwlch (15).

**Recommendation for further assessment:** None.

**Recommendation for mitigatory measures:** A descriptive survey should be carried out on all traditional field boundaries to be affected, including photographic recording.

It is recommended that an archaeological survey be undertaken of the field boundaries within the corridor of interest, and expand this where necessary to allow the boundaries to be put into context.

**Areas of unknown archaeological potential Category E**

Previous results from similar projects have shown that many sites can only be detected by excavation. A continuous watching brief along the line of the route is therefore an essential part of the evaluation procedure, with potential for discovering sites which would otherwise go unrecorded.

**Recommendation for further assessment:** None

**Recommended mitigatory measures:** A continuous watching brief should be maintained during the relevant stages of the road improvement works.

**4.3.2 Gazetteer of sites within the study area which are not likely to be affected by the proposed road improvements.**



**42. Large scale slate tip - Llechwedd quarry SH69804670C**

*Category C*

Large tip with tip lines and numerous walls and structures built over it, located east of main road, just north of Rhiwbryfdir. The tip forms an integral part of the Llechwedd slate quarry.

**43. Slate tips - Gloddfa Ganol Quarry SH69734705**

*Category C*

Poorly preserved slate tips associated with Gloddfa Ganol Quarry. The tip, crossed by tracks and tipping runs, is located west of main road, north of Pont Pant-yr-afon.

**44. Gardens of Plas Waenydd SH69804720C**

*Category D*

Former gardens of Plas Waenydd, now largely under forestry and car parks. Little of interest appears to remain.

**45. Walled gardens - NW of Plas Waenydd Lodge SH69754735C**

*Category C*

Walled gardens associated with Plas Waenydd/Plas Waenydd Lodge. Derelict and partially over-grown ruinous walls of mortared slate slab remain.

**46. Area of infill - Tal-y-waenydd SH69684732C**

*Category D Impact: None*

This area, immediately south of Ty Mawr, lies adjacent to the site of an earlier terrace which once stood at Tal-y-waenydd. The buildings are now largely demolished and partially engulfed by the slate tip to the west. The terrace is known to have existed in c.1870 and appears on the Ordnance Survey map of 1918. The infill is presumably material associated with the demolition of the terrace.

**47. Ty Mawr, smallholding SH69654738**

*Category C*

Early-mid 19th century house of mortared slate rubble under a pitched slate roof. The house appears to have been used as a farmhouse for some time, however its detached position near the former Calvinistic Methodist chapel and at the end of a now largely demolished row of early-mid 19th century quarry workers cottages suggests a fairly high status; possibly the residence of a local minister or quarry steward attached to the Oakley quarry.

**48. Oakeley Terrace and Chapel SH69644743C**

*Category C*

The post 1870, probably turn of the century, terraced replacement for the earlier quarry workers cottages to the south, since engulfed by quarry waste. At the southern end of the terrace stands a contemporary chapel of the Calvinistic Methodist denomination.

**49. Area of old stone walls - Tal-y-waenydd SH69704755C**

*Category D Impact: None*

On the north-east side of a small triangular enclosure are the remains of a number of stone walls and a possible culvert. The area closest to these within the field is slightly raised and drier than the surrounding area, though no structural remains are evident.

**50. Small buildings against edge of tip SH69594757**

*Category D*

At least two small structures, with associated walling apparently built into the edge of the slate tip. A quarry map of 1870 indicates that a well stood in or near the buildings.

**51. Bryntirion, house SH69554776**

*Category D*

A late 19th/early 20th century two storeyed rendered farmhouse, now derelict and unsafe. It is likely that the present building replaces or adjoins an earlier cowhouse shown on a map of 1870.

**52. Disused level and tip SH69664786C**

*Category D*

Disused trial level situated east of and above the road.

**53. Llyn Ffridd-y-bwlch, Reservoir SH695481**

*Category B*

Reservoir with stone built dam, shown on the OS 1" map of 1838. It is likely that the reservoir was first constructed either in the mid 1820s to power the mill of Chwarel Holland or by 1838 for the Welsh Slate Company's mill, built soon after.

**54. Possible track SH69694811 - SH69714813**

*Category D*

Faint indications of a track leading north-east from the main road towards the quarry of Ffridd-y-bwlch.

**55. Old boulder wall at SH69754839**

*Category D*

Remains of old redundant field wall constructed of boulders.

**56. Sheepfold and converted building SH69984849**

*Category C*

A sheepfold since enlarged by the incorporation of an adjacent ruined building, to form an "L" shaped enclosure. The ruined building, probably an old field barn or shepherd's bothy is of random rubble construction and has an existing entrance in its east wall, allowing access to the rest of the fold. There are a number of blocked openings set in the south elevation; indication of a central doorway with a window to either side. The entrance to the dry-stone fold lies at the north of its east wall.

**57. Revetted track at SH69864848**

*Category C*

A well preserved track, still in agricultural use, leading to one of the air shafts of the LNWR Blaenau Ffestiniog railway tunnel and a small disused quarry. Similar to site (28), the track was built as a traction engine road to one of the shafts used in the excavation of the LNWR Railway tunnel to Blaenau Ffestiniog (opened in 1879).

**58. Disused level and associated structure SH69944871C**

*Category D*

The disused slate level at Bwlch Gorddian with an associated "U" shaped dry-stone, roofless structure - possibly hut or blast shelter.

**59. Small rectangular peat cutting approximately SH70054869**

*Category D*

A small rectangular peat cutting located to the west of the main road.

**60. "L" shaped feature - Crimea Inn SH70164892**

*Category D*

Footings of an "L" shaped feature located just to the north of the Crimea Inn. Now largely obscured by an asphalt car park, the feature, shown on the OS 6" map of 1920 may have been a stock holding compound.

**61. Old quarry scoops approximately SH70264929**

*Category D Impact: None*

Two old quarry scoops adjacent to (east of) the track (35).

**62. St Mihangel's stone and well** approximately SH70354959

*Category C Impact: None*

Ffynnon Mihangel and its stone are located immediately east of the road. The well is in fact a small spring close to the road and the stone once upright now lies fallen across it. The stone is closely covered with graffiti dating at least from the mid 19th century. This clearly reflects its popularity as a watering place for travellers and perhaps local belief in the properties of its water.

**63. Old dry stone wall** SH70314939 - approximately SH70534975

*Category D*

Old boulder wall running east of and roughly parallel to the main road. Its north end continues as a low ephemeral bank.

**64. Rectangular scoop** approximately SH70404966

*Category E Impact: None*

A rectangular grassed over scoop cut into the slope of the hillside close to the east side of the A470(T). The exact function of the scoop is unknown, however it may have contained a structure.

**65. Two small road side quarries** SH70494980

*Category D Impact: None*

Two small road side quarries a short distance apart. They are located on the east side of the A470(T) road. The northernmost contains a small rectangular hut or shelter constructed of salvaged industrial materials. The hut is built of waste slate slabs and has a single pitch roof of corrugated iron, slate and concrete, sandwiched, supported by rafters of iron rail and pipe. The sturdy construction is suggestive of a blast shelter, perhaps associated with other nearby quarries such as site (40) or those of Rhiw Ffynnon Bach, slightly further up slope.

## 5. SUMMARY OF RECOMMENDATIONS FOR FURTHER WORK AND MITIGATORY MEASURES

### 5.1 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.

#### *Category E - Sites needing further investigation*

17. Sub-rectangular scoop	Trial excavation
25. Small circular feature	Trial excavation
33. Embanked curvilinear feature	Trial excavation
39. Possible settlement and track	Geophysical and trial excavation

### 5.2 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*

3. Llechwedd exchange sidings and power house	preservation <i>in situ</i> .
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Record by photograph and measured survey.

#### *Category B - Regional importance*

None.

#### *Category C - Local importance*

1. Three 19th century cottages - Rhiwbryfdir	Recording and building survey
5,5a. Road revetment, Crimea Road	Recording and watching brief
6. Afon Barlwyd culvert	Recording
7. Slate tip - Llechwedd slate Quarry	Recording
9. Graffiti covered stones - Tal-y-waenydd	Record and survey, relocation of stone
10. Field barn - Tal-y-waenydd	Recording and building survey
28. Revetted trackway	Recording
31. Remains of Crimea Inn	Archaeological survey

#### *Category D - Minor and damaged sites*

2. Area of linear tips	Watching brief
4. Footpath	Recording
8. Revetting/walls along stream	Recording
11. Retaining wall - entrance to Gloddfa Ganol	Recording
12. Linear tip - S of Bryntirion	Recording
13. Dry stone field boundary - Bryntirion	Recording
14. Road side quarry scoops	Recording
15. Track to Ffridd-y-bwlch Reservoir	Recording
16. Short length of track	Record and survey
18. Small quarry	Recording
19. Slate dump	Record and survey

20. Tip or dump, "Esgidiau Meirw"	Recording and relocation of memorial stone
21. Remains of old stone wall	Record and survey
22. Rectangular enclosure	Recording
23. Old field boundary	Recording
24. Small road side quarries	Recording
26. Track, S of Crimea Inn	Record and survey
27. Peat cutting	Record and survey
29. Small slate dump	Recording
30. Possible trackway	Record and survey
32. Slate turnpike milestone	Record and relocate
34. Trackway	Record and survey
35. Trackway	Record and survey
36. Two small road side quarry scoops	Recording
37. Dry stone field boundary	Recording
38. Track	Recording
40. Small quarry and sheepfold	Recording
41. Old field wall/bank	Record and survey
Field boundaries	Descriptive survey

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

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## 7. NON TECHNICAL SUMMARY

An initial assessment of the proposed route has identified a number of sites of national and local interest, and five sites that require further assessment. Only one short stretch of slate fencing was found to exist within the corridor of interest.

Initial recommendations are also proposed for mitigatory measures for known sites ranging from preservation *in situ* where at all possible to the provision of a watching brief during road construction.

Sites identified within the route corridor possibly range from the Prehistoric period to the present century, but are predominantly of the 19th century. The most significant site is the Llechwedd exchange sidings and power house (3), which preferably should be preserved *in situ*, *if disturbance is unavoidable then the features should be recorded by photograph and measured survey.*

Sites affected by the scheme are London House and the three 19th century cottages - Rhiwbryfdir (1), the road revetment, Crimea Road (5&5a), the Afon Barlwyd culvert (6), the slate tip - Llechwedd slate Quarry (7), the graffiti covered stones - Tal-y-waenydd (9), the field barn - Tal-y-waenydd (10), the revetted trackway (28) and the remains of Crimea Inn (31). All these sites need to be recorded, some require an additional response: it is recommended that a building survey is undertaken of sites (1) and (10), that site (5 & 5a) is recorded subject to the watching brief and that site (31) is surveyed. The stones (9) should be recorded and surveyed, and the stones relocated if necessary.

Recommendations are proposed for further assessment to clarify the extent and nature of potential sites and trial trenching is likely to increase the number of actual sites. Further assessment by trial excavation is required to establish the exact nature of the sub-rectangular scoop (17), the small circular feature (25) and the embanked curvilinear feature (33). In addition to trial excavation it is recommended that a geophysical examination is undertaken of the site of the possible settlement and track (39) to establish its nature and extent.

A number of agricultural, industrial and other features were identified. Among these were a number of old tracks, field boundaries, and minor quarry workings; some of these will require surveying, while others can be adequately recorded by photograph and description in advance of destruction. Also placed in this category are the memorial stone at site (20), and the mile stone (32); it is recommended that these should be recorded and relocated.

It is recommended that an archaeological survey be undertaken of the field boundaries within the corridor of interest, and expand this where necessary to allow the boundaries to be put into context.

It is recommended that a watching brief is maintained during the ground disturbance and that provision be made for the adequate recording of any sites which are identified at this stage of the development.