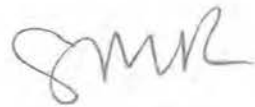


A5 TRUNK ROAD  
IMPROVEMENTS AT  
BETHESDA HALFWAY BRIDGE

ARCHAEOLOGICAL ASSESSMENT :  
STAGES 1 AND 2

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REPORT NO. 61

GAT 1139

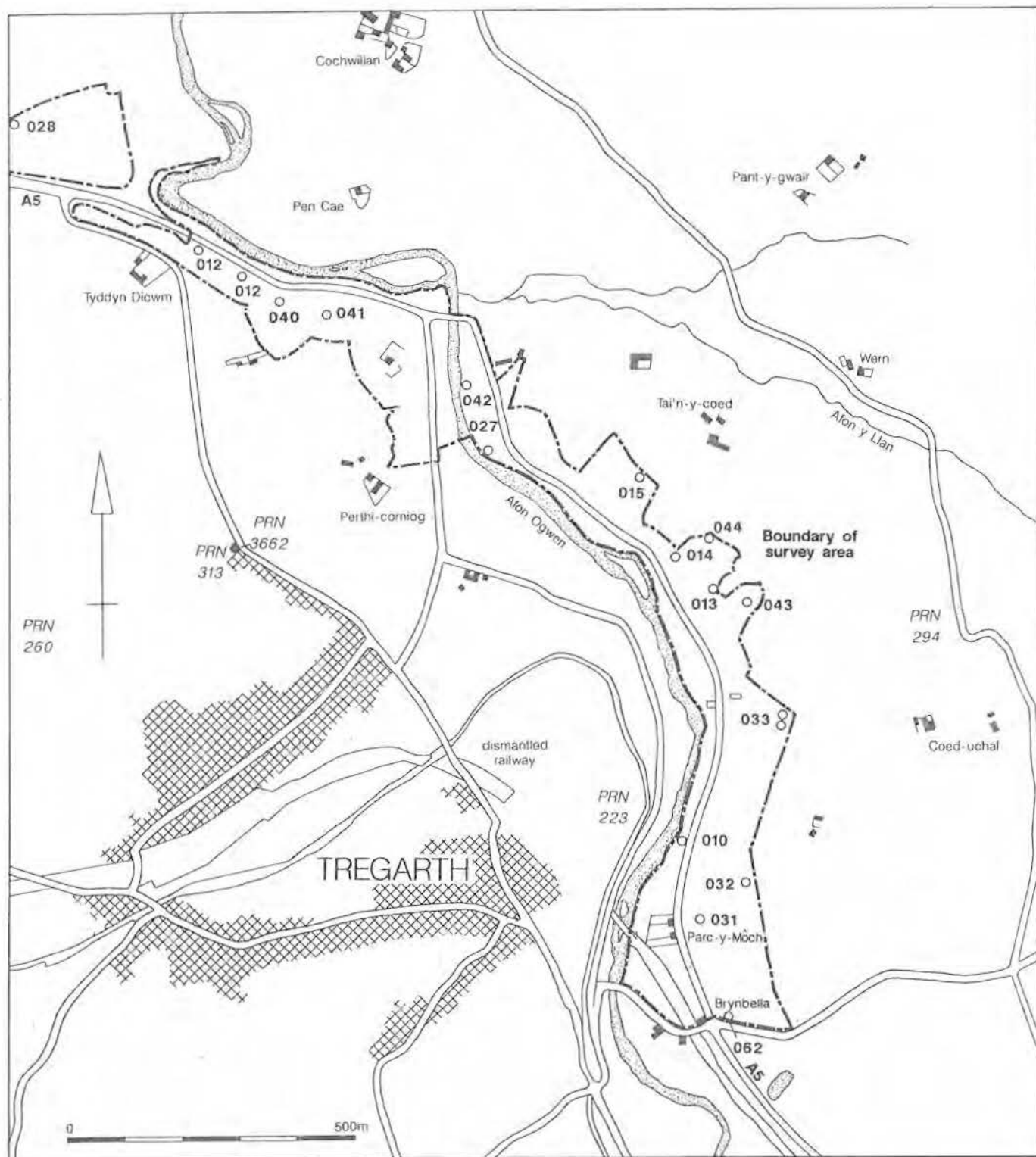
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Gwynedd Archaeological Trust

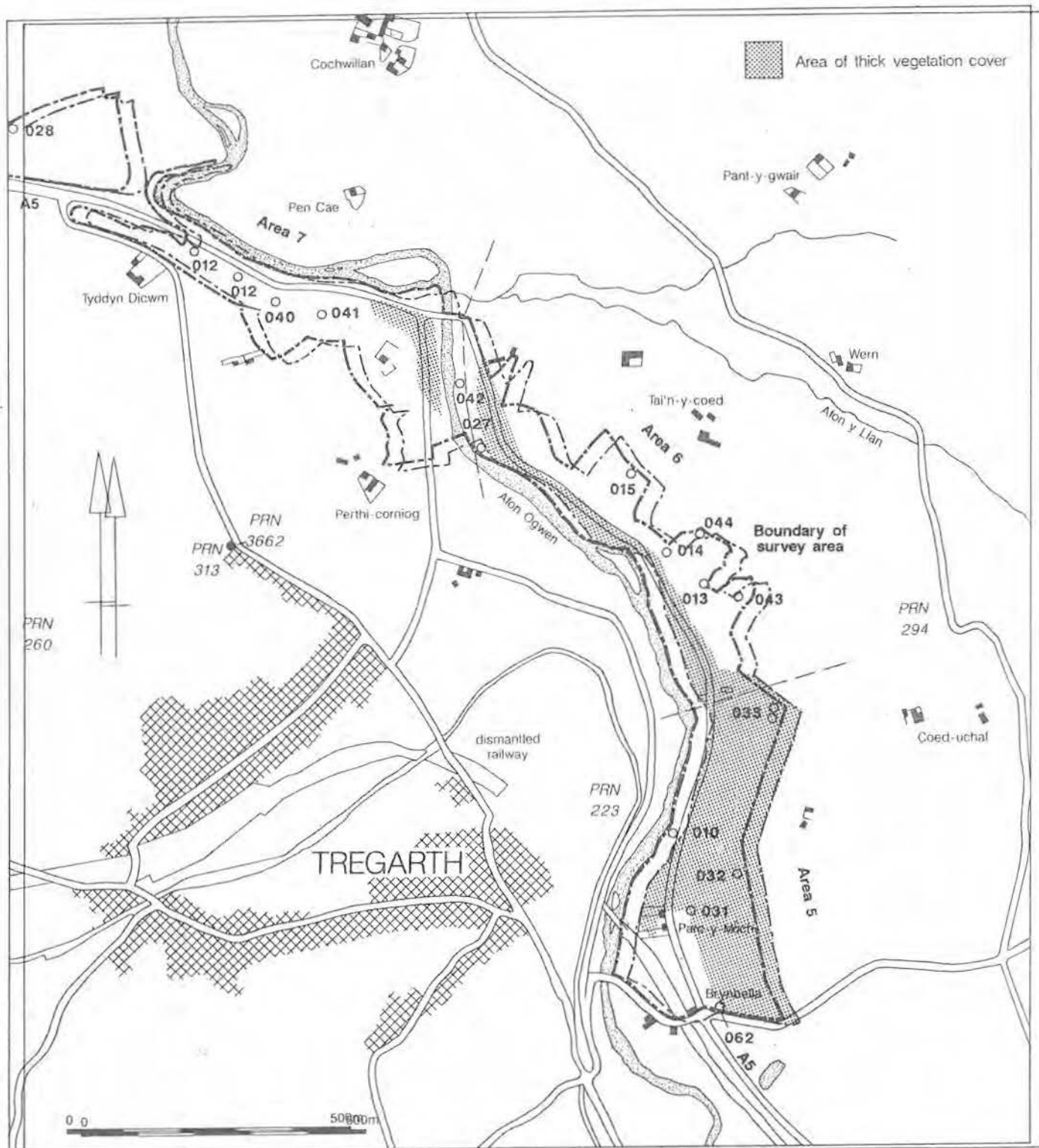
A5 TRUNK ROAD  
IMPROVEMENTS AT  
BETHESDA HALFWAY BRIDGE

ARCHAEOLOGICAL ASSESSMENT :  
STAGES 1 AND 2

for The Appleton Group

Gwynedd Archaeological Trust Report No. 61





## **1. INTRODUCTION**

As part of the ongoing programme to up-grade the A5 trunk road within North Wales, the Welsh Office Highways Directorate is proposing to improve a 2.3 kilometre section of the road near Bethesda. This section extends southeastwards from the existing dual-carriageway (just to the west of the Lon y Wern junction) up to the Brynbella crossroads, where it will link up with the proposed Bethesda bypass scheme.

The proposed new road will, for the most part, follow the line of the existing A5 with only minor alterations to the route. The major deviations will occur at the Halfway Bridge bends which will be moderated by means of a new crossing of the River Ogwen further to the south of the existing bridge, and at Parc y Moch, where the road will run to the east of the present route. The whole route will, however, be widened and subjected to considerable landscaping. The width of the proposed landtake is up to 50m.

Gwynedd County Council have retained the Appleton Group as Environmental Consultants to carry out an Environmental Impact Assessment and to produce an Environmental Statement. The Gwynedd Archaeological Trust Ltd (GAT), Contracts Section has been commissioned by the Appleton Group to carry out an archaeological assessment of the affected area and produce a report of the results for incorporation into the Environmental Statement.

## **2. ARCHAEOLOGICAL BACKGROUND**

Situated within the Ogwen Valley the scheme is located within a rich archaeological landscape containing several known sites of considerable importance. Pen Dinas Iron Age Hillfort (PRN 223), a Scheduled Ancient Monument (SAM), stands above the River Ogwen on the southern bank. The site consists of well preserved earth ramparts enclosing an area of approximately 1.5 acres. No evidence for associated features such as field systems has so far come to light surrounding the hillfort, but this is more likely to reflect a lack of research rather than the true situation on the ground.

To the north-west of Pen Dinas is situated the large prehistoric enclosed settlement of Parc Gelli (PRN 260), also a Scheduled Ancient Monument, and consisting of several hut circles and associated field system. Further prehistoric/Romano-British occupation of the area is represented by a possible hut circle at Maes yr Hedydd (PRN 313) and nearby the find-spot of a rotary quern (PRN 3662).

On the northern side of the Ogwen Valley is the Coed Uchaf Hut Group (PRN 294), a Scheduled Ancient Monument. It is an enclosed settlement of Iron Age/Romano British date, and is associated with a terraced field system to the south and west.

To the west of Coed Uchaf at Tal y Sarn, are the remains of two late medieval long houses (PRN 298, 299).

Although none of these known sites are directly threatened by the proposed route of the road, they do illustrate the intensity of pre-historic and Romano-British settlement of the landscape. The close proximity of these important known sites suggests that more features remain to be discovered and reinforces the need for a careful assessment of areas likely to be destroyed and/or disturbed should the development proceed.

## **3. THE ASSESSMENT BRIEF**

The archaeological assessment brief was designed by the Gwynedd Sites and Monuments Record and follows agreed standard procedures for Trunk Road assessments as contained within its "Programme of Archaeological Work for Road Schemes".

The initial assessment brief called for:

- 1) A Desk-top assessment of all known sites on or near the route, including a place-name analysis, study of available aerial photographic collections, tithe and other relevant early maps, and any other relevant documentary sources.
- 2) Fieldwalking the entire route to locate and record any existing earthworks, or to locate (if the land is arable) surface scatters of archaeological material.
- 3) From initial appraisal of maps, it is likely (using topographical and land use criteria) that there would only be a minimal requirement for geophysical survey of selected areas on the route. However, where appropriate, this method should be used to try to locate traces of buried settlements and/or other sites. The precise areas were to be decided during the fieldwork stage (2 above), and allowance had been made for the minimal geophysical response of survey of 1 hectare.
- 4) There would be a requirement for test pit digging of areas indicated by the geophysical survey as being of archaeological importance, and also the excavation of regular test pits along the rest of the route as appropriate.
- 5) An assessment report would be produced containing a summary of the results as well as recommendations for further work that might be required.

#### Further Work.

This will obviously be dependent on the results of the assessment and will be decided in discussion with Cadw who will draw up a brief for any further work considered necessary.

It was subsequently determined by Welsh Office Highways that Stages 1 and 2 would be carried out according to the project brief and that an initial summary report would be produced at this stage incorporating recommendations for geophysical survey and test pit digging. A full report identifying any possible further work would then be produced on completion of these later assessment stages.

## **4. METHODS and TECHNIQUES**

### **STAGE 1 - The Desk-Top Survey**

Available early estate, tithe maps and documents were consulted at the Gwynedd County Sites and Monuments Record (SMR), the Gwynedd Archives at Caernarfon and the University archive at the University College of North Wales, Bangor (UCNW). Aerial photographic collections were inspected at the Gwynedd County Council Highways Department, and at the Countryside Council for Wales (Bangor) (CCW). Selected reference works were also consulted. Cymdeithas Archaeoleg Llandegai a Llanllechid (CALL) (Llandegai and Llanllechid Archaeological Society) were consulted. Oral evidence was also received from several local sources.

#### **List of Maps Consulted**

- 1768 Penrhyn Estate Maps - Llanllechid and Llandegai parishes, 1" to 4 chains (UCNW)
- 1840s Tithe Map - Llanllechid & Llandegai parishes, and schedules (Gwynedd Archives)
- 1841 Penrhyn Estate Map - Llandegai parish, 1" to 4 chains (UCNW)
- 1855 Penrhyn Estate Map - Llanllechid parish, 1" to 4 chains (UCNW)
- 1914 1:2500 O.S (Gwynedd Archives)
- 1963 1:10560 (6" to mile) (SMR)
- 1975 1:10000 O.S (SMR)
- undated Penrhyn Estate Map (SMR)



## Other Documents, Texts and Resources Consulted

- Royal Commission on Ancient and Historical Monuments in Wales (Caernarfonshire Inventory) - Vol I (1956), Vol II (1960), Vol III (1964) (SMR)
- Pennants Tours of Wales (1778) (SMR)
- A description of Caernarfonshire (1809-1811) (SMR)
- A Gazetteer of Welsh Place Names (University of Wales, 1975) (SMR)
- Welsh names and their meanings, D. Davies (SMR)
- Atlas of Caernarfonshire, T.M Bassett and B.L Davies - 1977 (SMR)
- Report of Cymdeithas Archaeolegol Llandegai a Llanllechid - 1976 (SMR)
- Welsh Historic Gardens Trust, Newsletter 5, 1992 (SMR)
- Archaeology in Wales 17 1977 (SMR)
- Hynafiaethau Llandegai a Llanllechid - Hugh Derfel Hughes 1866
- A History of the North Wales Slate Industry - Lindsay - 1974 (SMR)
- Aerial photographic collection - Countryside Council for Wales (1980's, colour)
- Aerial photographic collection - Gwynedd County Council (1986, black and white)

## STAGE 2 - The Field Survey

For the purposes of the archaeological assessment, the corridor of archaeological interest was taken as corresponding to the Land Ownership Plan supplied by Gwynedd County Council (Drawing No. HT/195/27a). This corridor varied in width from a minimum of 60m. southeast of Pandy Farm, to a maximum of 275m. at BrynBella, but generally averaged some 100 m. wide.

Contact was made with all landowners and tenants within the corridor area and, with their consent, access was gained to all of the land within the assessment area.

The corridor of interest was fieldwalked by a two man team in 25m transects, where possible, to identify surface features and structural remains. Sites and features identified were located on 1:2500 plans supplied by Gwynedd County Council and their locations were later transferred to enlarged copies of O.S 1:10000 area maps (1975). Locations were calculated by triangulation with 30m survey tapes and paced out measurements where appropriate. Site recording involved black and white negative film at a 35mm format, and written descriptions and sketches entered on standard GAT field survey forms.

The great majority of the fieldwalking was carried out from July 5 to 9 1993, with two blocks of land walked during the week of July 26. Some areas were subsequently revisited to clarify detail for the report.

In general the conditions under which the survey was carried out were good. The main constraint was the thick, barely penetrable vegetation and thicket encountered at many of the assessed areas. It is estimated that up to 60% of the areas investigated were covered in dense woodland and/or thick undergrowth. This occasionally prevented access but even where access was possible served to make the identification of any possible features very difficult. **It is very likely that there are further features within these areas which were not identified by the survey.**

## 5. RESULTS

### STAGE 1 - The Desk Top Survey

#### Gwynedd County Sites and Monuments Record (SMR)

Inspection of the County Sites and Monuments Record revealed six sites in the vicinity of the development area, none of which are directly affected by the proposed route. These sites, as discussed in section 2 of this report, were as follows:

SMR No.	SITE	TYPE	NGR
223	Pen Dinas, Llandegai	Hillfort	SH61006805
260	Parc Gelli, Tregarth	Hut Group	SH60106838
294	Coed Uchaf	Hut Group	SH61606840
298	West of Cae Llwyn Grydd	Hut Platform	SH61956831
299	South of Tal y Sarn	Hut Platform	SH62026818
313	Maes yr Hedydd	Hut Circle	SH60376850

### Placename and Field Pattern Evidence

A study of documentary and map evidence for field names affected by the route revealed a fairly complete list of names for the parish of Llanllechid and a full list of names for the parish of Llandegai. Field patterns on the 1768 Penrhyn Estate maps are still recognisable on current 1:10000 Ordnance Survey sheets. It is noted that between the mid-eighteenth century and production of the 1855 Penrhyn Estate map of Llanllechid parish, numerous additions and small alterations were made to the field system of the parish. This was followed in the early twentieth century by a reversal of this trend, with many field boundaries and livestock features (e.g. enclosures, sheep folds) being removed, effectively returning the landscape to a similar layout to that of the mid-eighteenth century.

Study of placename evidence identified "Parc y Moch" as of potential interest, possibly suggesting an ancient woodland site. The area is located to the east of the present A5 road north of the Brynbella Crossroads and the present documentary work has shown that it has been woodland continuously since at least the 1768 Penrhyn Estate map. The name itself literally means 'park of the pigs' which suggests a connection with the medieval practise of allowing pigs to forage within woodland. This presumed ancient status has been reinforced by conversation with local people and through consultation with CALL.

In addition, CALL drew the Trust's attention to a chapel built in 1820 somewhere in Parc y Moch. The chapel was apparently used for only 20 years and may have been constructed of timber. A possible rectangular structure was identified during the field walking stage (see site 031 in gazetteer).

### Other Evidence from Documentary and Map Sources

Study of the 1855 Penrhyn estate map of Llanllechid parish indicated the presence of an old mine working located to the south of the present A5 road, near to the eastern extent of the proposed scheme. Consultation with CALL reveals that the map reference refers to copper mining in the 1760s by Cornish miners working levels from the east bank of the River Ogwen underground towards the area of Coetmor. The mineral deposits were also recovered from deep workings in the vicinity. The copper veins were again exploited in 1802 when Lord Penrhyn attempted to mine the other side of the Ogwen below Pen Dinas Hillfort. This venture apparently yielded no success. Evidence of the various adits and pit workings were visible '20 or 30 years ago' according to local people. (see site No. 010, Area 5, in gazetteer below)

Inspection of the 1914 1:2500 Ordnance sheet located an area of gravel pits to the south of the present A5 road just north of Tan yr Allt (see site No.012, Area 7, in gazetteer below).

### Aerial Photography

Aerial photographs at the Gwynedd County Council Highways Department and the Countryside Council for Wales were studied to identify any possible sites previously undetected from map and documentary work. No potential features were noted within the limits of the corridor of archaeological interest. A number of possible sites were noted some



distance outside the corridor, however, these should not be affected by the present development proposal.

### **Other Sources**

The presence of an old incline (see site 040 below) and sand pit (site 041 below) were initially brought to the attention of the Trust by Mr. Williams of Tyddyn Dicwm with further detail for these sites and information regarding site 010 Copper Mine provided by Gwenno Caffell of CALL (see above: **Other Evidence from Documentary and Map Sources** and below section 5 gazetteer)

### **STAGE 2 - The Field Survey (Fig 2)**

For the purposes of the survey and for ease of reference between the text and the location maps, the proposed route corridor was divided into 3 areas (Areas 5-7). (see overlay Figure. 2)

To assess the relative importance of each site and allow the appropriate mitigatory action to be applied, a framework of basic categories has been used as suggested in the non-statutory Criteria for Scheduling Ancient Monuments and/or Criteria for Listed Buildings laid out in Annex 3 of PPG 16. The Categories are as follows:

#### **Category A - Preservation in situ.**

Sites that, due to the level of archaeological importance, are recommended to remain preserved and protected in situ.

#### **Category B - Detailed recording.**

Sites for which preservation in situ is the preferred option, but detailed recording (either by full excavation or standing building analysis and controlled demolition) may be an acceptable alternative if damage or destruction cannot be avoided.

#### **Category C - Recording by photograph and description.**

An adequate record can be achieved by written description and photograph, and survey by Electronic Distance Measuring equipment (where appropriate), if damage is inevitable.

#### **Category D - Watching brief sites.**

This category is to deal with those sites whose presence is suspected (e.g from place name evidence) or whose nature is still unclear following detailed assessment (e.g minor geophysical anomalies).

#### **Category E - Sites requiring further investigation.**

The importance or function of which are as yet undetermined, and which will need further investigation before they can be allocated to the relevant category.

### **GAZETTEER OF SITES**

(the gazetteer describes the sites along the route from west to east)

#### **AREA 7**

**028. Ditched Mound - Category E****(SH6930059900)**

A small earth mound, 7.6m in diameter, was identified on pasture land to the north of the present A5 surrounded by a well defined shallow ditch c.1.2m wide. The feature is adjacent to a livestock gateway dividing two fields but is not evident to the north side of the gateway. This might be explained by more intensive cultivation of the neighbouring field or possibly the result of erosion by animals crowding the gateway area.

It is not immediately obvious what the significance of this feature might be, the clarity of the surrounding ditch suggests that it is not exceedingly old, however it is potentially interesting. As this area is likely to be part of re-landscaping work during construction of the new road it is recommended that small scale trial trenching be undertaken to clarify its nature before it is destroyed.

**012. Gravel Pits - Category C****(SH6905060370)**

A series of small quarries were identified on steep wooded land to the south of the present A5 in area 7. These are probably recent industrial features as they are shown by map evidence to have developed from a single large pit existing on the 1914 1:2500 (25 inch) O.S. map into a series of pits by the time of the 1963 6 inch O.S. edition.

**040. Incline - Category B****(SH6899060410)**

Located to the east of site 012 in a heavily wooded area (which is designated as a site of special scientific interest, SSSI), is an old narrow gauge railway incline. This industrial feature was drawn to the attention of GAT by the land owner Mr. Williams. The incline is in good condition descending from west to east across a north facing slope at a slight gradient and measures c. 3.0m wide. The full extent was not apparent on the ground, however, on the 1914 25 inch O.S sheet the line of the Penrhyn Quarry Railway can be traced from the Ogwen Slate Works, along the western side of the River Ogwen to the incline. CALL has informed GAT that the incline formed part of the first quarry railway which was completed in 1801.

**041. Old Sand Pit - Category C****(SH6895060575)**

To the north of the incline at its mid-point was an oval shaped quarry scoop. This feature is c.15m wide and c.5.0m deep. The pit is marked on the 1914 1:2500 O.S sheet. However the origin and historical background of the pit is unknown.

**062. Cerrig Cannon - Category B****(SH612506775)**

The location of an inscribed cerrig cannon was brought to the attention of GAT by Gwenno Caffel of CALL. The feature comprises a large stone outcrop some 15m high with a more or less flat top into which a pattern of holes and narrow channels have been cut. The purpose of the holes was to take a charge of gunpowder which was ignited by means of fuses in the narrow channel producing a controlled effect similar to a gun salute. Various inscriptions are also visible cut into the stone, the most prominent of these is: **PV REX..CJ 28 1838**. The top of the outcrop is heavily overgrown and it is likely that much of the cannon lies obscured beneath it.

**AREA 6****042. Riverbank Revettment - Category C****(SH688060785)**

A 6.0m length of stone revetting c.1.0m high on the eastern bank of the river Ogwen near to Halfway Bridge. It is likely that this feature will be destroyed during construction of the new river crossing.

**027. Stone Lined Leat (?) - Category E****(SH6873060810)**

Located at the meeting of the river terrace and the foot of the south facing slope is a linear feature traceable for c. 10.0m running in a roughly north to south direction. Upright stones appeared to line each side of a partially filled ditch c. 1.0m wide. Traceable for a short length only due to thick vegetation cover, was a linear earth bank running close to, and parallel with, the channel on its eastern side. The feature appears well preserved, especially within the thicker areas of vegetation. Further work should include a closer inspection of the feature, clearance of some of the undergrowth obscuring it and an attempt to trace the origin, destination and possible function.

**015. Sheep Pophole - Category C****(SH6870061130)**

Constructed within a well preserved field boundary is a small lintled pophole 0.80m in height and 0.40m wide. The feature is in good condition.

**014. Possible Hut Circle - Category E****(SH6858061185)**

A 5.3m length of drystone masonry forming a semi-circular shape at least two courses high. This is suggestive of an Iron Age/Romano-British hut circle, however, semi-mature trees and grass cover obscure this feature and further assessment will be necessary to ascertain its full function and form.

**013. Gateway - Category C****(SH6850061240)**

A gateway 2.25m wide notable for its two large stone gateposts which show no signs of any fittings. (This feature is just one of several in this area representing elements of a surviving 18th century agricultural landscape).

**043. Quarry - Category C****(SH6846061300)**

A small hillside stone quarry working.

**044. Trackway - Category C****(SH6864061230)**

This feature is part of an extensive trackway system in this area and is bounded on both sides by stone walls in a poor state of preservation. It represents one feature in a wider historic landscape late-eighteenth to early nineteenth century in date.

**AREA 5****033. Possible Hut Group - Category E****(SH6815061300)**

Located within a densely wooded area to the north of the present A5 on either side of a small stream were two ephemeral semi-circular shapes formed by well spaced stones. The size and shape is suggestive of the foundation remains of stone built round huts of prehistoric or Romano-British date. Little is visible above ground, however, there may be important remains surviving below ground and it is possible that further huts were located in this area. Further investigation is needed to clarify the significance of these features.

**010. Mine - Category C****(SH6810061200)**

Located below the present A5 on a steep south facing bank is an open adit or possibly a double adit. In a much collapsed condition, the entrance is flooded, well vegetated and partially filled with fallen rock. There is evidence of revetting of the entrance on the east side. A combination of slate and river boulders has been used to form a revetment wall now very much collapsed. This feature may relate to a reference to an 'old mine' on the 1855

Llanllechid parish estate map identified during the documentary search (See Other Evidence from Documentary and Map Sources, above)

### **032. Possible Hut Group - Category E**

(SH6796061300)

Located within a heavily wooded area with thick low level vegetation is an area of strewn stone. Though heavily overgrown, it was possible to identify several circular concentrations within the general stone spread which, by their size and shape, are suggestive of prehistoric or Romano-British hut circles. It will be necessary to undertake some clearance of vegetation merely to properly assess what is visible; further intrusive assessment work may then be necessary.

### **031. Stone (?) Structure - Category E**

(SH6790061200)

The site is heavily overgrown with ivy and other vegetation, however, it is just possible to make out a rectangular shape formed by low (stone?) walls of c. 5.5m by 3.8m. CALL advised the Trust that a chapel had been built in 1820 somewhere in Parc y Moch (see Placename and Fieldname Evidence above). Further work is required to establish the nature of this feature.

## **SITES LISTED BY CATEGORY OF ARCHAEOLOGICAL RESPONSE**

### **Category A - preservation in situ**

- None identified

### **Category B - detailed recording**

- 040 incline

- 062 cerrig cannon

### **Category C - recording by photograph and written description**

-012 gravel pits

-041 old sand pit

-042 riverbank revetment

-015 sheep pophole

-013 gateway

-043 quarry working

-044 trackway

-010 quarry working

### **Category D - Watching brief**

- None specified at this stage

### **Category E - sites requiring further investigation**

-028 ditched mound

-027 stone lined leat(?)

-014 stone structure

-033 possible hut group

-032 possible hut group

-031 possible stone structure

## **6. INTERPRETATION**

As expected in a landscape already known to contain a major Iron Age Hillfort and extensive remains of stone walled hut groups several further sites of potential pre-historic/Romano British interest were identified. The location of three new sites of possible hut circles (site nos. 014, 033, 032) on the east side of the river valley close to a supply of water and with a south facing outlook is consistent with the distribution of similar known sites in this area.

In addition, the small ditched mound in Area 7 (site no.028) is potentially interesting. Though



it may prove to be a late agricultural feature, it requires further investigation to clarify its significance and date.

The survey also produced numerous agricultural and industrial features representing elements of a well preserved post-medieval landscape. Features to the north of the present A5 in Area 6 (015, 013, 044, 042) together form part of a system which retains characteristics from at least the mid-eighteenth century.

Although a relatively recent archaeological resource, when faced with destruction or serious dismemberment, such a landscape has undoubted value and efforts should be made to preserve it through limiting damage to an acceptable minimum where possible and preserving by record those elements which cannot be saved.

Industrial features identified during the assessment of the route (represented by 012, 040, 041, 027, 043, 010, 062) generally represent small scale private enterprise. Quarrying for sand and gravel was identified in Area 7 (012, 041). Quarrying and possibly mining activity were located at sites 043 and 010 (Areas 6, 5) respectively. Feature number 027 (Area 6), a stone lined leat/gulley, appears to be associated with the use of water for some purpose, perhaps as a power resource. Further investigation of the feature and the location of related features would be required for accurate identification. The incline located in Area 7 is related to the large scale exploitation of slate in the area and is part of a larger landscape concerned with the winning and transportation of slate for this industry. The incline is an important relic of this industrial heritage and should be fully recorded before destruction or disturbance.

The presence of thick vegetation and dense secondary woodland in much of the survey corridor made the identification of potential sites difficult in some areas. In addition, once potential sites had been located it was often impossible to properly assess the areas surrounding such sites for further associated features. In particular, the extensive woodland in which the possible Iron Age/Romano British hut circles 032 and 033 have been located may well obscure further important features relating to the contemporary landscape and land use in the areas surrounding these settlements.

## **7. PROPOSALS FOR MITIGATORY MEASURES & FURTHER ASSESSMENT**

### **ASSESSMENT**

#### **A) Areas recommended for Geophysical Survey**

The majority of the proposed road corridor is wooded and unsuitable for geophysical survey. Therefore in the limited areas where the geology and terrain are appropriate geophysical sampling should be undertaken. The following areas have been identified:

1. Sample areas in the vicinity of 028 (Area 7). This feature is located within an area of reasonable quality cleared pasture where geophysical survey would be possible and where it is reasonable to expect (due to the present quality of the land) that earlier settlement or exploitation may have occurred.
2. Sample areas within Area 6, north of the present A5. Here, again, the cleared pasture makes geophysical investigation possible and surviving historic landscape features suggest further investigation would be fruitful.

#### **B) Areas recommended for systematic test pit excavation**

1. Sample areas within Areas 5 and 6 north of the present A5. Much of this area is overgrown, nevertheless, several hut circles and other structures have been identified so that there is potential for additional important features to be revealed through further assessment in this area.



NB. The areas chosen for geophysical survey and systematic test pit excavation have also been selected because they correspond with two of the major deviations of the proposed new route from the existing road line.

### **C) Sites Requiring Further Survey or Trial Trenching**

1. Vegetation clearance to establish the nature of site 027 (stone lined leat, Area 6) and further recording.
2. Vegetation clearance to establish the nature of site 033 (possible hut group, Area 5) and further recording.
3. Vegetation clearance to establish the nature of site 032 (possible hut group, Area 5) and further recording.
4. Vegetation clearance to establish the nature of site 031 (rectangular stone structure, Area 5) and further recording.

While clearing vegetation should lead to a better definition of some heavily overgrown sites, it is possible that trial trenching would subsequently become necessary in some cases. In addition, trial trenching is recommended as the next step in assessing the following sites:

1. A trial trench to establish the nature of site 028 (ditched mound, Area 7)
2. A trial trench to establish the nature of site 014 (possible hut circle, Area 6)

## **MITIGATORY MEASURES**

### **A) Sites Requiring Detailed Recording**

1. 040 incline
2. 062 cerrig cannon - this feature is heavily overgrown and will require considerable clearance to reveal the full extent of the site.

### **B) Sites Requiring Basic Non-Intrusive Recording**

1. Because of time constraints, the recording of sites identified by the survey has necessarily been cursory, concerned mainly with the salient features, the location and possible initial interpretation and date. All identified sites will therefore require further more detailed recording by photograph and written description and, on occasion, the production of a scale drawing before they are destroyed or disturbed.
2. In addition, it is recommended that a survey by Electronic Distance Measuring equipment (EDM) be carried out in Area 6 to the north of the present A5 to record the layout and location of field boundaries (present and traceable), trackways, and other identified features of the historical landscape.

### **C) Watching Brief Recommendations**

1. Approximately 60% of the areas investigated were covered in dense woodland and/or thick undergrowth. Where, despite this, potential sites have been identified but not properly assessed, it is recommended that provision be made for these sites to be cleared so that a proper initial assessment can be carried out before ground disturbance takes place. This assessment work may in itself lead to recommendations for more intensive investigation eg trial trenching. In other heavily overgrown areas where no sites have been identified, it is recommended that watching briefs be carried out once the vegetation has been cleared and before ground disturbance takes place so that any further archaeology which may come to light can be recorded.
2. The whole route will need to be the subject of a watching brief following topsoil stripping as some sites will inevitably only become apparent at this stage.

## 8. NON-TECHNICAL SUMMARY

The results of the initial evaluation involving a desk top study and a field survey produced a relatively even distribution of potential archaeological sites within the survey area. The initial work has brought to light a number of possible pre-historic/Romano British sites which, should further assessment reveal to be significant, may require a high level of archaeological response prior to the proposed development taking place. Initially, 028 an apparent ditched mound, and 014, 033 and 032, possible hut circles, will all require further assessment. This will take the form of vegetation clearance and survey for 033 and 032 with recommendations for further work, and initial trial trenching for 014 and 028.

In addition, 031 is a potential rectangular structure of indeterminate function or date and will also require further assessment once it is cleared of its heavy vegetation cover.

Sites of the post-medieval period, generally represented by a number of industrial features (062, 012, 040, 041, 027, 043, and 010) and features forming elements of the historic landscape (015, 013, 044, and 042), were numerous and their destruction should not take place prior to adequate archaeological recording. 027 (the stone lined leat) will require further assessment work to clarify its extent and significance.

Much of the area is unsuitable for geophysical survey particularly because of the thick vegetation, however, this method should be used in those areas which are appropriate as this may reveal features which have not been susceptible to the survey methods employed so far. Such areas are the fields to the south of Lon Isaf and west of the old A5, and the fields on the east side of the existing A5 stretching from Pand y Bryn to Tan y Bryn.

Test pit excavation should also be undertaken along the line of the road route as a further assessment technique. As with geophysical survey, this method will serve to identify features which may not have any visible or above ground remains. The main areas recommended are in the fields to the east of the existing A5 from Tan y Bryn to Brynbella.

The recommended areas for geophysical survey and test pit excavation have also been chosen in order to assess two of the major deviations of the proposed route from the existing road line.

As stated, the area of archaeological interest was to a large extent covered in thick and, in places, nearly impenetrable woodland and undergrowth and it is very likely that several sites escaped detection during the initial fieldwalking. It is important, therefore, that further inspection of these areas be undertaken once they have been cleared and before actual ground disturbance takes place.

As with all large development schemes, the potential for further discoveries once ground disturbance commences is a possibility. This is particularly so with the present proposal, taking into account the high level of known archaeological remains in the general area. It is imperative therefore, that an adequate watching brief be maintained during the ground disturbance and that some provision be made for the adequate recording of any sites which are identified at this late stage in the development.

This report is a summary of recommendations arising out of the documentary and fieldwalking stages of an assessment of the route corridor. Final recommendations for further action and mitigatory strategies will emerge on completion of the programme of trial trenching, geophysical survey and further assessment outlined above.

