
A494 BALA TO GLANLLYN CYCLE PATH/FOOTWAY



ARCHAEOLOGICAL ASSESSMENT

GAT Project No. 1975

Report No. 706

November 2007

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Prepared for Ymgynghoriaeth GWYNEDD Consultancy

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By

John Roberts

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A494 BALA TO GLANLLYN CYCLEPATH/FOOTWAY

PROJECT DESIGN FOR ARCHAEOLOGICAL ASSESSMENT (G1975)

SUMMARY

An archaeological assessment has been carried out prior to the proposed development of a cyclepath/footway within the existing grass verge adjacent to the A494 close to the west shore of Llyn Tegid, Gwynedd. The existing verge was constructed during the recent modernisation of the A494 and currently comprises a level grass area, faced by a roadside kerb, which varies in width up to three metres.

The proposal represents Stage 2 of the Bala – Glanllyn cyclepath/footway scheme, following work previously completed between SH 92003550 – SH 90603390 in early 2007. Stage 1 commenced from the existing footway that heads southwestwards along the A494 (T) at the entrance to the Bala Watersports and Adventure Centre and terminated at the start of the third lay-by (SH 90603390). Stage 2 of the proposals will commence from the third lay-by and terminate at the entrance to Glanllyn caravan park to the south, between SH 90603390 – SH 8930 3250 (see Figure 1).

The aim of the scheme is to provide a cyclepath/footway link that members of the public can use to travel from the caravan park to Y Bala without using the A494 (T) carriageway. The work will involve excavating in the existing southbound grass verge for a width of approximately 2m from the A494(T) kerb (at an approximate depth of 220mm – 300mm) and creating a shared use (cyclists/pedestrians) facility approximately 2km in length. The total area of the proposals is approximately 4000m².

From an initial inspection of the proposals, it appears that the verge chosen for the cyclepath/footway is, in effect, a heavily landscaped area, created during the modernisation of the A494 from imported material. Due to the shallow depth of the proposed works, the archaeological impact will be limited. From a study of the available map evidence, the road alignment had been extensively altered during the twentieth century and on-site inspection showed that the modern road had been built on large embankments and along extensive rock cuttings to straighten out the road. It is likely that the majority of the verge chosen for the developments has been created from landscaped/ imported material, and, due to the shallow depth of the proposed excavation, the potential impact of the proposed works upon suspected archaeology is limited. It is not recommended that evaluation trenches are required at this stage but that a partial watching brief is recommended, targeting specific areas along the scheme where the modernisation of the A494 is thought to have been less acute and the potential is greater for survival of the proposed Roman road.

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1.0 INTRODUCTION

Gwynedd Archaeological Trust has been asked by Ymgynghoriaeth GWYNEDD Consultancy, on the advice of the curatorial archaeologist of the Snowdonia National Park Authority (SNPA), to carry out an archaeological assessment, with recommendations, in advance of the proposed construction of a cyclepath/footway within the existing grass verge adjacent to the A494 and Llyn Tegid, Gwynedd (Between NGR SH90603390 and SH89303250; Figure 01).

The groundworks will include the excavation of the existing southbound grass verge for a width of c.2.5m, along the A494 (T) kerb (depth c. 220mm to 300mm) and creating a shared use (cyclists/pedestrians) facility c.2.0km in length. The total area of the proposals is c.4000m².

Previous work in the area by the Gwynedd Archaeological Trust on the Roman roads of Northwest Wales suggests that a Roman road ran along the current course of the A494 (T) for the stretch in question (Hopewell, 2006; GAT Report 668).

2.0 SPECIFICATION AND PROJECT DESIGN

No brief has been prepared for this work by Snowdonia National Park Authority (SNPA), but guidance has been given in the form of a summary of requirements. This design will conform to these requirements and also to the guidelines specified in *Standards and guidance for archaeological desk-*

based assessment (Institute of Field Archaeologists, 1994, rev. 2001) and *Standards and guidance for archaeological field evaluation* (Institute of Field Archaeologists, 1994, rev. 2001).

The assessment is to consider the following:

- The nature, extent and survival of archaeological sites, structures, deposits and landscapes within the proposed development.
- The history of the site.
- The potential visual impact of any proposed development on the *setting* of known sites of archaeological importance.
- Measures to mitigate the effects of the improvement work on the archaeological resource were to be suggested.

The project has been undertaken according to guidelines specified in *Standards and guidance for archaeological desk-based assessment* (Institute of Field Archaeologists, 1994, rev.1999). The basic requirement was for a desktop survey and field search of the proposed area, in order to assess the impact of the proposals on the archaeological features within the area concerned. The importance and condition of known archaeological remains were to be assessed, and areas of archaeological potential and new sites to be identified.

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

- *to identify and record the cultural heritage of the area to be affected;*
- *to evaluate the importance of what was identified (both as a cultural landscape and as the individual items which make up that landscape); and*
- *to recommend ways in which damage to the cultural heritage can be avoided or minimised.*

A full archaeological assessment usually comprises 6 phases:

- 1) *Desk-top study*
- 2) *Field Search*
- 3) *Interim Draft Report*
- 4) *Detailed Field Evaluation*
- 5) *Final Draft Report*
- 6) *Final Report*

This assessment has covered the work required under 1, 2 and 3.

3.0 METHODS AND TECHNIQUES

3.1 Desk-top Study

This involved consultation of maps, computer records, written records and reference works, which make up the Regional Historic Environment Record (HER), located at the Gwynedd Archaeological Trust, Bangor. The archives held by the Meirionnydd Archives, Dolgellau, were also consulted.

3.2 Field Visit

The field visit was carried out on 12th November 2007. The aim of the field survey was to inspect the development area (Figure 1) and to assess the possible impact of the development on any archaeological remains identified during the desktop study as well as on any suspected buried remains. The present condition of the sites were recorded and the results are given below.

3.3 Report

The available information was synthesised to give a summary of the archaeological and historic background and of the assessment and recommendations, as set out below. The separate features, their

evaluation and recommendations are listed separately, and a summary of the overall assessment of the area is given at the end.

4.0 ARCHAEOLOGICAL BACKGROUND

4.1 Topographic Description

The proposed development area is located along the northwestern side of Llyn Tegid (between NGR SH90603390 and SH89303250). Llyn Tegid, at 5.5km long, is the largest natural lake in Wales, situated in Bala cleft, a major geological fault cutting northeast to southwest across North Wales. The cleft forms a narrow valley, which is drained by the River Dee and its tributaries. The proposed development is located along an existing grass verge, attached to the current A494 trunk road. The road runs through the town of Bala, before meeting Llyn Tegid. As it does so, the road enters the Snowdonia National Park. It runs along the side of the lake for (6 km), after which it largely follows the Afon Wnion, before terminating at Dolgellau at a junction with the A470.

4.2 Archaeological and Historical Background

Each identified site described here is listed in the Regional Historic Environment Record with a unique Primary Record Number (PRN).

The proposed development site, located on the southwestern periphery of Bala, was historically in the parish of Llanycil.

4.2.1 Prehistoric

No known sites within the development area.

4.2.2 Roman

There are known defensive and settlements sites within the local area and a Roman road has been postulated along the route of the current A494.

A Roman auxiliary fort, Caer Gai (PRN 1569), with an associated *vicus* settlement (PRN 4252) is located 1.81km to the southwest of development area. A Roman fort has also been identified to the east of Bala, in Llanfor, c.3.6km from the proposed development (SAM M092; PRN 3211).

The route along the present A494 at Llyn Tegid has been designated PRN 17609 and is thought to represent part of a Roman road running from the Caer Gai fort to Deva Roman road (PRN 3850: Hopewell 2007 GAT Report 668; see Figure 02). The exact location of the Roman road within this area has not been confirmed to date and the route detailed in Figure 02 remains postulated.

4.2.3. Medieval

Bala was in the *maerdref* of the *commote* of Uwch Treweryn in the *cantref* of Penllyn. A motte, (SAM: M016; PRN 3202), Tomen y Bala, presumed to be Norman, is located c.3.14km from the development area.

Bala, under the reign of Edward II, became a planned English borough, aimed at bringing law and order to the surrounding commote of Penllyn, for which it became the administrative centre.

4.2.4 Post-Medieval

Bala declined as an administrative centre during the later Medieval period, but during the 18th century, a hosiery industry developed there, which led to the rebuilding and expansion of the town beyond the Medieval borough (ICOMOS, CADW and CCW, 1998: 71). By the middle of the nineteenth century, the industry had to compete with the factories of the English Midlands, with the consequence that the area's hosiery trade gradually declined (*ibid.*).

Within the development area, an examination of the available map evidence suggests that the existing A494 trunk road has been modified during the course of the twentieth century. The 1838 Tithe Map does not show the road in specific detail, but the associated Tithe Schedule reveals the landowner/occupancy apportionment and the associated land use. The land along the route of the proposed development was owned by Sir Watkin Williams Wynn Esq., 5th Baronet of the Glanllyn Estate (1772-1840). He was also Lord Lieutenant of Meirionethshire from 1793 to 1830. The various enclosed parcels of land were owned by either an Owen Owens or a Robert Jones and saw a variety of uses, including “arable”, “plantation” and “meadow”.

An examination of the available nineteenth and twentieth century map evidence confirmed that the route of the A494 had been altered during the twentieth century. A major phase of road modernisation within the development area was conducted between the publication of 1953 6” Ordnance Survey Map and the 1981 1:10000 County Series Map of the local area (Figures 03 and 04). The road was straightened along almost the entire course, with major alteration work at Pont y Lafar at the southwestern end of the scheme (SH89343247; Plate 16), where a new bridge and subway (for cattle to pass beneath the road) were constructed. New embankments were laid here and to the northeast of “Nurse Cae Seren” (SH89783302; Plates 06 to 10), where the embankment continued for a length of 0.47km, terminating at Cerrig Llwydion Farm (SH90313353). Extensive cutting into the rockhead also took place between Cerrig Llwydion Farm and the northeastern end of the scheme to facilitate the straightening of the road (Plates 11 and 12).

Further alterations took place after 1981: an examination of the latest map data shows that modifications were made northeastwards from the area of “Nurse Cae Seren”, for a distance of 0.56km, with a new T-junction at “Nurse Cae Seren” and further embankments and cuttings to straighten the road (Figure 04).

An examination of the route by a walkover survey clearly showed the modern embankments and cuttings. A good example of the latter was found at SH90043321, where part of the original road had also survived (Plate 05).

5.0 SCHEME IMPACT AND MITIGATION

Archaeological sites identified within the proposed development area are discussed below (para. 5.1.1. to 5.1.4.) followed by a discussion of the scheme impact and the recommended mitigation strategy (para. 5.2 and 5.3).

5.1. Archaeological Sites

5.1.1 Site Gazetteer

For the location of archaeological sites within the development area see Figure 1.

The criteria used for assessing the value of features was based upon those used by the Secretary of State for Wales when considering sites for protection as scheduled ancient monuments, as set out in the Welsh Office circular 60/96.

The definitions of categories used for impact, field evaluation and mitigation are set out in Appendix I.

Feature 1: Caer Gai fort to Deva Roman road (PRN 3850/17609).

Category: A

Impact: Unknown

A stretch of the Caer Gai fort to Deva Roman road (PRN 3850/17609) has been identified at the location of the proposed development (Hopewell 2007 GAT Report 668; see Figure 02). The specific route is unknown, but the A494 is listed in the 1981 Edition of the 1:10000 Ordnance Survey County Series Map of the area as a “Roman road”. It is known, however, that the road has been considerably altered during the late twentieth century and that what is visible at present is a modernised version of an earlier trunk road. Due to the extensive cuttings and embankments engendered by the modernisation scheme (including the placement of BT ducts along the verge within the proposed development area), the extent of impact on the potential Roman road is unknown but is thought to be limited. However, its survival in certain areas, where embankments and cuttings have been less extensive, remains a

possibility. Any surviving remains would be of national importance. Therefore, a partial watching brief is recommended to target those specific areas (see paragraph 5.3 for the suggested locations).

Recommendations for mitigatory measures: A partial watching brief targeting specific areas along the scheme where the modernisation of the A494 is thought to have been less acute and potential is greater for survival of the proposed Roman road.

Feature 2: SLATE QUARRY, COED CERRIG HWDION (PRN20350).

Category: C

Impact: None

Small slate quarry “scoop” located along the proposed route at SH89703300 (See Figure 02). On the opposite side of the road to the proposed scheme so will not be affected by the groundworks

Recommendations for mitigatory measures: None

5.1.2. Designated Sites within the local area:

Scheduled Ancient Monuments (SAM)

- M016: Tomen y Bala: Medieval defensive feature; located c.3.14km from the development area.
- M018: Caer Gai fort: A roman auxiliary fort located 1.81km to the southwest of development area.
- M092: A roman fort located to the east of Bala, in Llanfor, c.3.6km from the proposed development area.

5.1.3. Listed Buildings:

Grade I

- There are no Listed Buildings (Grade I) within the development area

Grade II

- There are no Listed Buildings (Grade II) within the development area

5.1.4. Landscape Register of Outstanding Historic Interest in Wales:

The development area is located within the Landscape Register of Special Historic Interest in Wales as **53**: Bala and Bala Lakesides HLW(Gw) 16 (ICOMOS, CADW and CCW, 1998: 68). The scheme will not impact on the historic landscape and a Staged Process for the Assessment of the Significance of the Impact of the Development on Historic Landscape areas (ASIDOHL; CCW, Cadw and WAG, 2007.) will not be required

5. 2 The Scheme:

- The proposed development aims to utilise a former grass verge located along the A494 (T) Road, between NGR SH 90603390 and NGR SH 89303250 and is the second stage of the Bala – Glanllyn cyclepath/footway scheme (as detailed in client Drawing No. 1785/GA/100). The proposed route will begin at the third lay-by along the southwest bound portion of the A494 alongside Llyn Tegid and will terminate at the entrance to Glan Llyn caravan and camping site.
- The existing southbound grass verge will be scarified to a depth of 220mm-300mm and a new surface laid down, comprising an all weather path and (where applicable) a narrow grass verge.
- The proposed construction incorporates a 0.5m wide verge attached to the existing road kerb (no verge will be included where the footway width is restricted by the existing verge boundary), constructed from soil and seed. Attached to this verge will be a “Type 2 Edging”. This will not be required along the roadside where the footway runs adjacent to the highway. Attached to this will be a 2.00m wide cyclepath/footway constructed from asphalt and presumably laid onto a suitable sub-base material. Another “Type 2 Edging”, will the run along the outside edge of the cyclepath/footway and will be disguised by a narrow soil and seed embankment. The remaining

portion of the original grass verge will form the outside edge of the footway. The overall width of cyclepath/footway will be 2.50m

5.3 Mitigation

5.3.1. Site Specific Impact

- There are no visible remains of the proposed Roman road (PRN3850/17609) along the route of the development. There is, however, the potential for the survival of underground remains and the presence of the Roman road within the development remains a possibility.
- Due to the shallow depth of the proposed cyclepath/footway (the existing verge will be scarified to a depth between 220mm and 300mm) and the extent of modernisation that appears to have occurred along the route it is not expected that the development will have a major impact on any potential remains. However, it is still possible in certain areas, where embankments and cuttings have been less extensive, that the chance of survival may be greater.
- The existing verge is also used as a service corridor for BT cables. Information provided by Open Reach confirms that the cables run along the entire proposed route. The precise impact of the cables could not be determined (the width of the trench is not known) and whilst it is expected that the excavation of the service trenches will already have made a significant impact below ground, it is possible that portions of the Roman road (if originally present) may survive outside the trench.
- If present, surviving remains of the Roman road would be deemed to be of national importance.
- Further to the observations made above, a partial watching brief is recommended to target specific areas (see Appendix II for appropriate definition of a partial watching brief and para. 5.3.2. for the location of the targeted area). The work must be carried out by an appropriately qualified professional person or organisation. The client or the client's project manager should liaise with the archaeological contractor once the project has commenced to arrange for the work to be undertaken. Sufficient time must be allowed to adequately record any information that comes to light as a result of the work. The curatorial archaeologist (the SNPA Archaeologist) should be informed of agreed arrangements by the client (or by the archaeological contractor on behalf of the client) in advance of the watching brief being conducted.

5.3.2 Recommendations for further work

- Ymgynghoriaeth GWYNEDD Consultancy uses a "chainage" measurement system for describing the length of the road improvement scheme in Drawing No. 1785/GA/100. The measurements begin at the southwestern end of the scheme at Chainage (CH) 0000, continuing northeastwards to the third lay-by at 100 metre intervals, finishing at Chainage 2000, i.e. 2000m from the start of the scheme. This measurement system can be used for identifying the specific watching brief locations in this report.
- An examination of the available map evidence suggests that the area between CH0250 and CH0500 (length: 250m) has been altered the least in terms of road layout (although it has still been modernised along with the rest of the scheme) and is the most suitable location for a targeted partial watching brief (see Figure 04 for location). This will enable an inspection of the initial groundworks (and help determine the impact of the works and the presence or not of archaeology at that depth) and will also expose the location and size of the existing BT trenches.

6.0 SOURCES

Published sources

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Crew, P and Crew, S., 'Geophysical Survey at Llanfor, Meirioneth, 1997' *Archaeology in Wales*, **37** (1997), 13-20

CCW, CADW and WAG. 2007. *Guide to Good Practice on Using The Register of Landscapes of Historic Interests in Wales in the Planning and Development Process. Revised (2nd) Edition including revisions to the Assessment Process (ASIDHOL2)*. Cadw: Welsh Historic Monuments. Cardiff.

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Soulsby, I., 1983. *The Towns of Medieval Wales*. Phillimore: Chichester.

Other sources

Ymgynghoriaeth GWYNEDD Consultancy Drawing No. 1785/GA/100

Archive sources

Regional Historic Environment Record (held by Gwynedd Archaeological Trust, Bangor, Gwynedd)

1838 Tithe Map: Llanycil (held by Meirionnydd Archives, Dolgellau, Gwynedd)

First Edition 6" Ordnance Survey Map 1891 XLIX.22NW1 & XLIX.22SW1

Fourth Edition 6" Ordnance Survey Map 1953 XLIX.22NW4 & XLIX.22SW4

1:10000 County Series Ordnance Survey Map (SH82NE; SH83NE; SH93SW & SH93NW)

Appendix I

The criteria used for assessing the value of features was based upon those used by the Secretary of State for Wales when considering sites for protection as scheduled ancient monuments, as set out in the Welsh Office circular 60/96. The definitions of categories used for impact, field evaluation and mitigation are set out below.

1.0 Categories of importance

The following categories were used to define the importance of the archaeological resource.

Category A - Sites of National Importance.

Scheduled Ancient Monuments, Listed Buildings of grade II* and above, as well as those that would meet the requirements for scheduling (ancient monuments) or listing (buildings) or both.

Sites that 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.

Grade II listed buildings and 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 that are of minor importance or are so badly damaged that too little remains to justify their inclusion in a higher category.

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

Category E - Sites needing further investigation.

Sites, the importance of which 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 usually be no sites remaining in this category.

1.1 Definition of Impact

The impact of the development on each site was estimated. The impact is defined as *none, slight, unlikely, likely, significant, considerable or unknown* as follows:

None:

There is no construction impact on this particular site.

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.* part of a trackway or field bank.

Unlikely:

This category indicates sites that fall within the band of interest but are unlikely to be directly affected. This includes sites such as standing and occupied buildings at the margins of the band of interest.

Likely:

Sites towards the edges of the proposed development, which may not be directly affected, but are likely to be damaged in some way by the construction activity.

Significant:

The partial removal of a site affecting its overall integrity. Sites falling into this category may be linear features such as roads or tramways where the removal of part of the feature could make overall interpretation problematic.

Considerable:

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

Unknown:

This is used when the location of the site is unknown, but thought to be in the vicinity of the proposed road.

1.2 Definition of Mitigatory Recommendations

None:

No impact so no requirement for mitigatory measures.

Detailed recording:

Requiring a photographic record, surveying and the production of a measured drawing prior to commencement of works.

Archaeological excavation may also be required depending on the particular feature and the extent and effect of the impact.

Basic recording:

Requiring a photographic record and full description prior to commencement of works.

Watching brief:

Requiring observation of particular identified features or areas during works in their vicinity. This may be supplemented by detailed or basic recording of exposed layers or structures.

Avoidance:

Features, which may be affected directly by the scheme, or during the construction, should be avoided. Occasionally a minor change to the proposed plan is recommended, but more usually it refers to the need for care to be taken during construction to avoid accidental damage to a feature. This is often best achieved by clearly marking features prior to the start of work.

Reinstatement:

The feature should be re-instated with archaeological advice and supervision.

Appendix II

1.0 Definition of an archaeological watching brief

(Reproduced from IFA. 1994 rev. 2001. *Institute of Field Archaeologists 2001 Standards and guidance for archaeological watching briefs*)

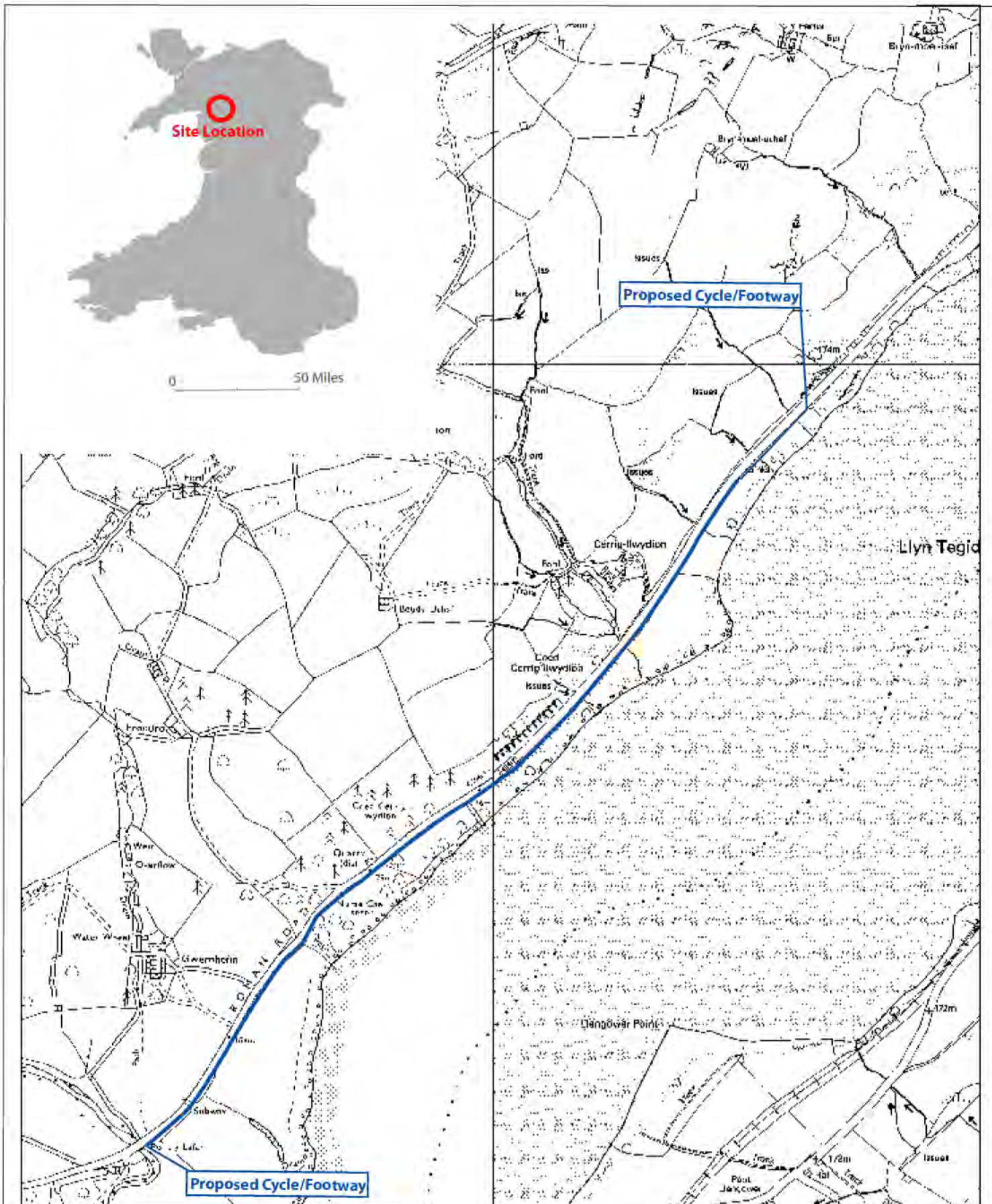
The definition of an archaeological watching brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be

within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

This definition and *Standard* do not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains *in situ*.

An archaeological watching brief is divided into four categories according to the IFA. 2001. *Institute of Field Archaeologists 2001 Standard and Guidance for an archaeological watching brief*:

- comprehensive (present during all ground disturbance)
- intensive (present during sensitive ground disturbance)
- intermittent (viewing the trenches after machining)
- partial (as and when seems appropriate).



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Graig Beuno, Ffynnydd Gwernhelin, Bangor Gwynedd LL57 3RT
Ffôn: 01248 352335. Ffacs: 01248 370925. email: g@nllw.ac.uk

**Figure 1: Location Map Detailing
Cycle/Footway**

Scale: 1:10000@A4

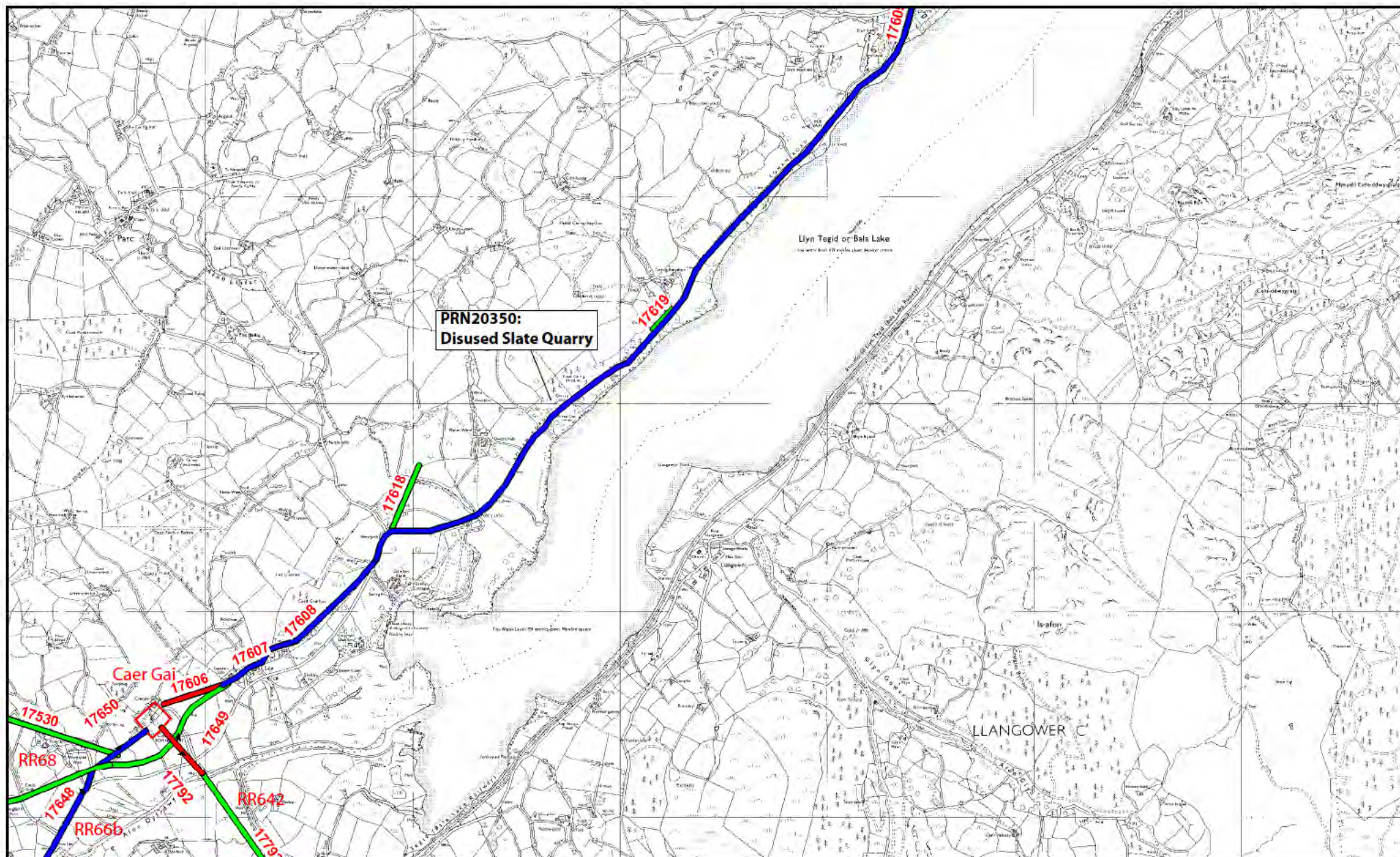


Figure 2:
Roman road RR66a (Caer Gai to Deva: PRN 3850), indicating status.
(Reproduced from Hopewell, 2006; GAT Report 668)

Background reproduced from Ordnance Survey 1:10,000 scale maps (SH82NE; SH83NE; SH93SW & SH93NW).
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KEY
Known —
Proposed —
Predicted —
Discounted —

Scale 1:25,000





Plate 1: Location of starting point for proposed Cycle/Footway; looking southwest



Plate 2: Location of starting point for proposed Cycle/Footway; looking northeast (note BT inspection hatch in foreground denoting route of BT cables)



Plate 3: View southwest along the verge denoting proposed route and detailing modernised road



Plate 4: View northeast along the verge denoting proposed route and detailing modernised road



Plate 5: View southwest along the verge denoting proposed route and detailing modernised road. Note the former road truncated by modern road cutting

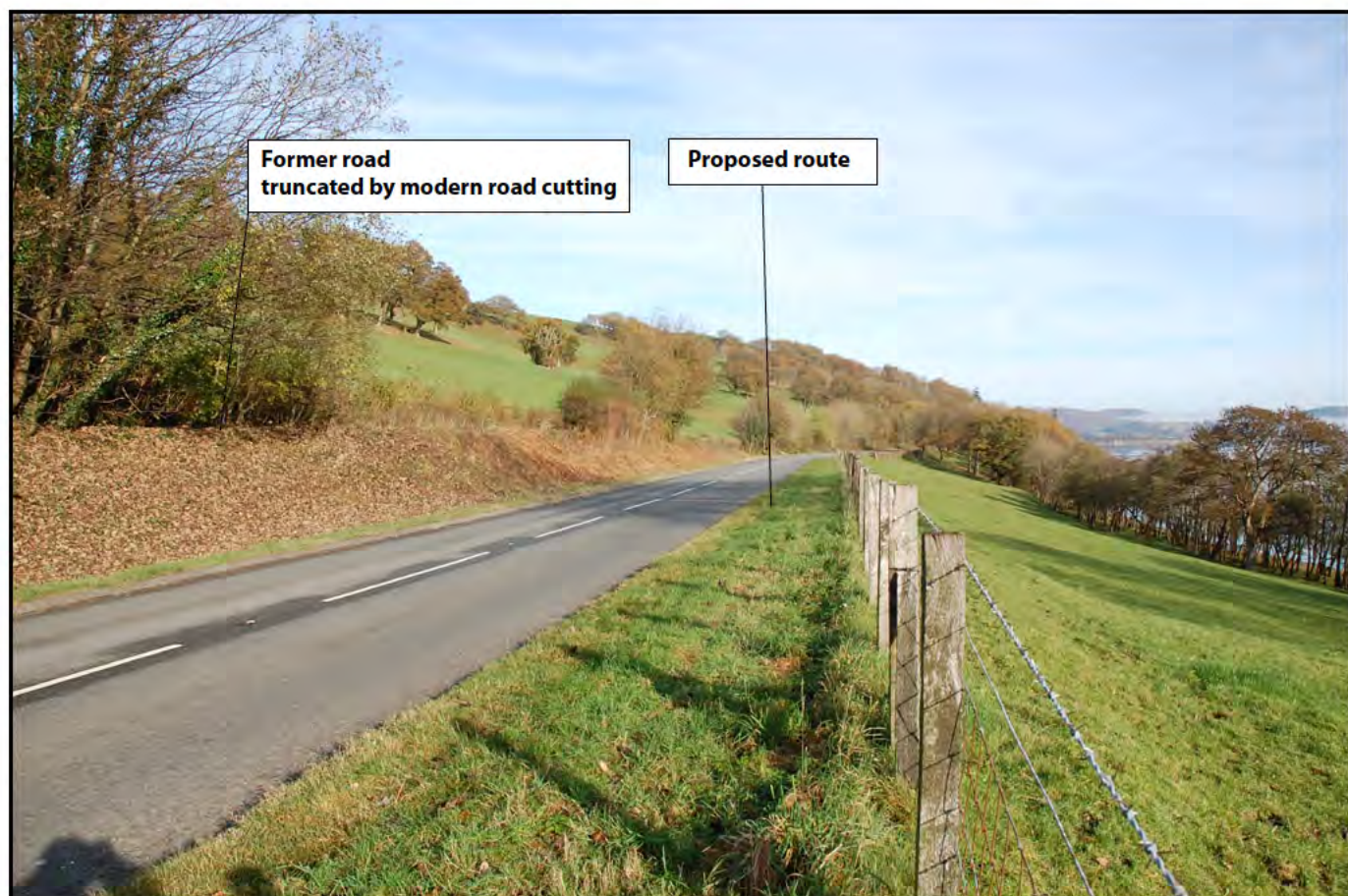


Plate 6: View northeast along the verge denoting proposed route and detailing modernised road. Note the former road truncated by modern road cutting

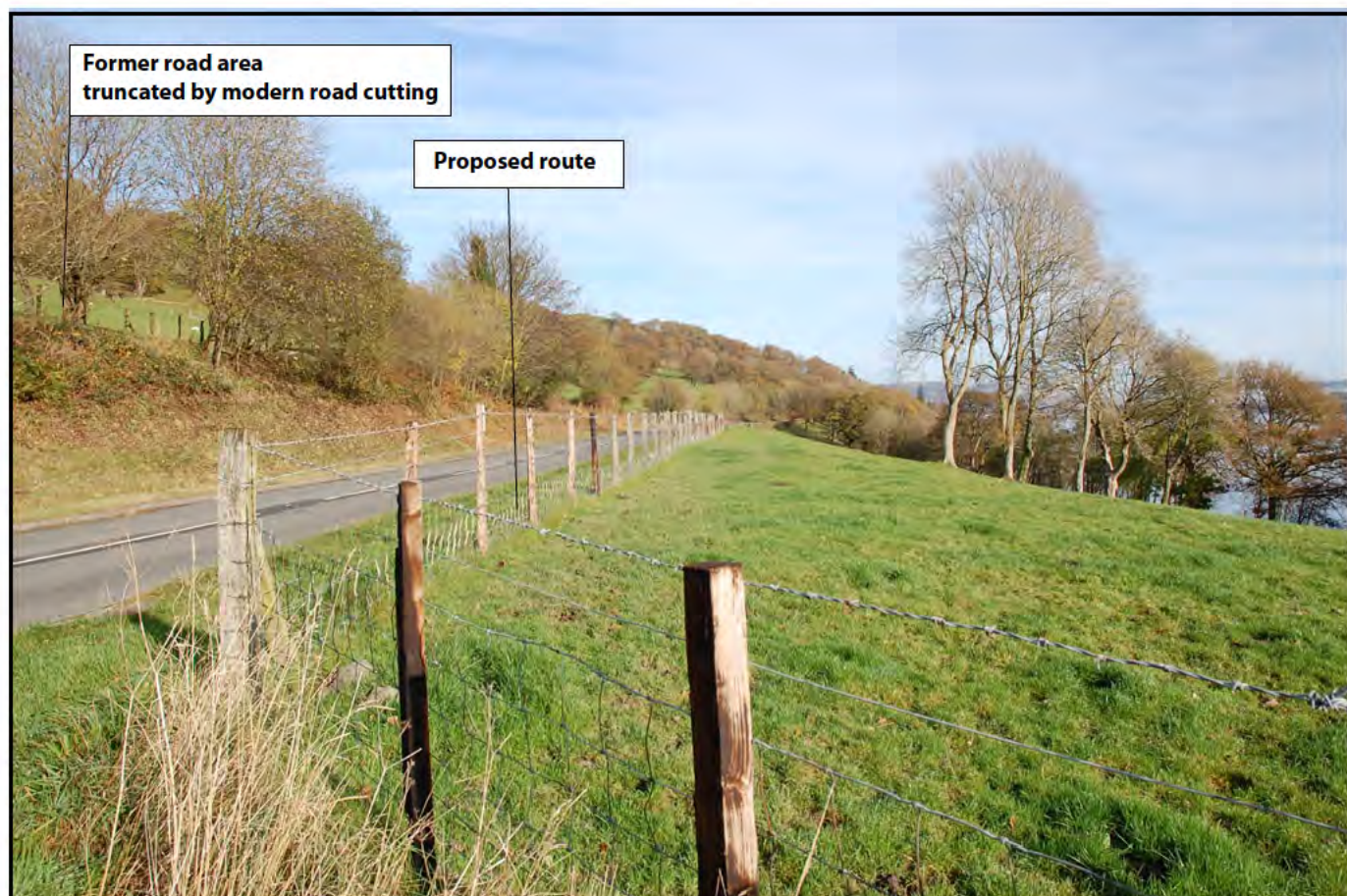


Plate 7: View north of the proposed cycle/footway, denoting proposed route and detailing modernised road.

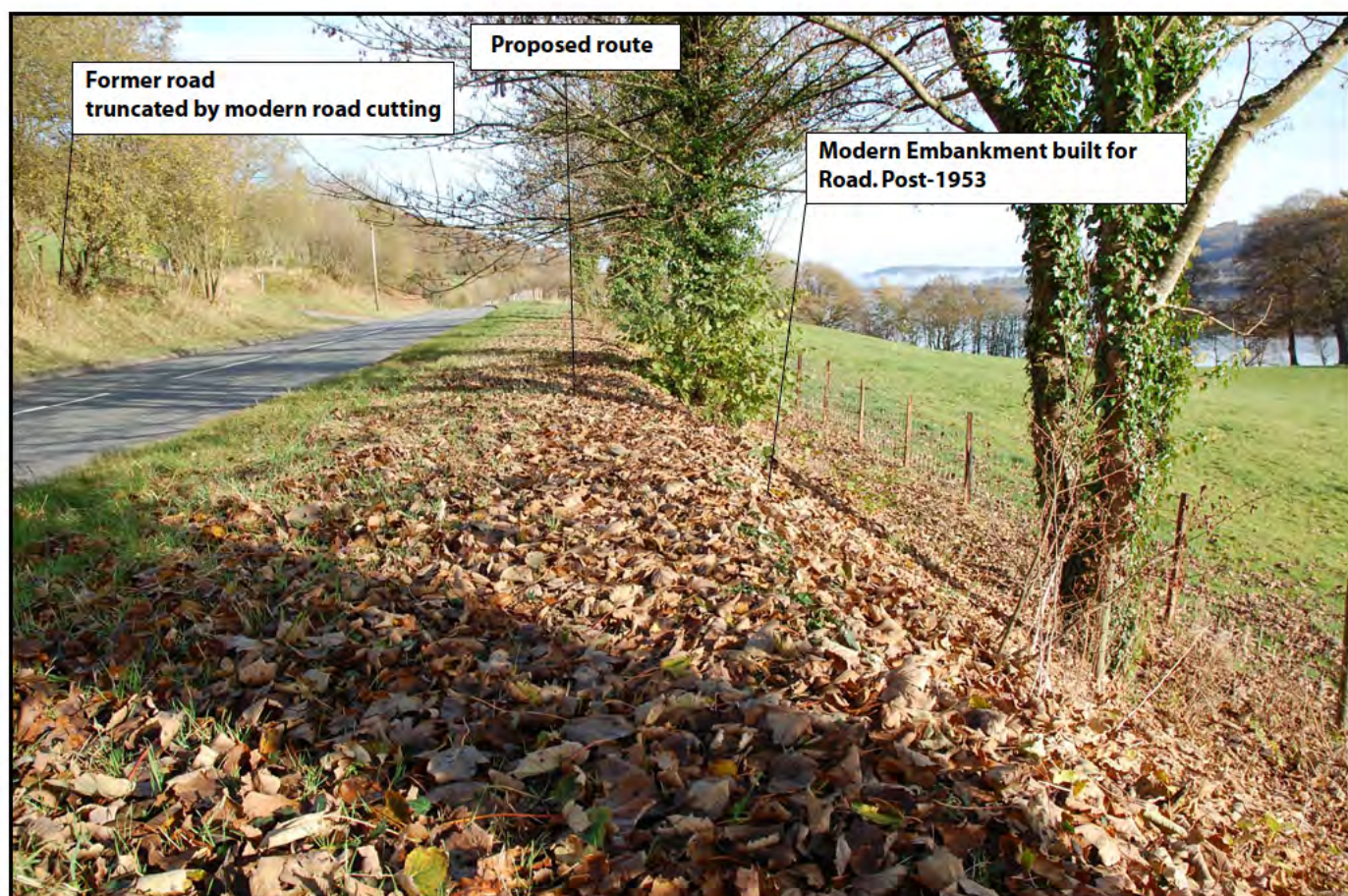


Plate 8: View north of the proposed cycle/footway, denoting proposed route and detailing modernised road. Note the modern embankment



Plate 9: View southeast of the proposed cycle/footway, detailing the modern embankment



Plate 10: View southwest of the proposed cycle/footway, detailing the modern embankment



Plate 11: View northeast of the proposed cycle/footway, detailing the modern road and embankment



Plate 12: View northeast of the proposed cycle/footway, detailing the modern road



Plate 13: View northeast of the proposed cycle/footway, detailing the modern road and embankment



Plate 14: View northeast of the proposed cycle/footway, detailing the modern road and verge



Plate 15: View southwest of the proposed cycle/footway, detailing the modern road and verge near southern end of route



Plate 16: View northeast of the proposed cycle/footway, detailing the modern road and verge at the southern end of the route. Note the BT inspection chamber in the foreground denoting route of BT cables



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Craig Beuno, Ffordd y Garth, Bangor, Gwynedd. LL57 2RT
Ffon: 01248 352535. Ffacs: 01248 370925. email: gat@heneb.co.uk