

A487 PONT SEIONT, CAERNARFON
ARCHAEOLOGICAL ASSESSMENT

REPORT NO. 66

GAT 1146

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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ARCHAEOLOGICAL ASSESSMENT

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Gwynedd Archaeological Trust Report No. 66

A487 PONT SEIONT, CAERNARFON - ARCHAEOLOGICAL ASSESSMENT

INTRODUCTION

As part of its scheme to upgrade the A487 Bangor - Fishguard Trunk Road, The Welsh Office is proposing improvements to Pont Seiont, Caernarfon. The intention is to build a replacement bridge across the Seiont River between the existing road and the former railway bridges. This will connect the existing South Road, Caernarfon to the A487 north of Bontnewydd. The new bridge will be built across a fairly deep natural valley, and will involve constructing substantial embankments on the flood plain either side of the Afon Seiont.

The Welsh Office have appointed L.G. Mouchel and Partners to undertake the environmental assessment. The Gwynedd Archaeological Trust has been appointed by the Welsh Office to provide the archaeological component of the environmental assessment.

2. SPECIFICATION AND PROJECT DESIGN (see appendix)

The aims of the archaeological assessment are:

- a) to identify and record the cultural heritage of the area to be affected by the proposals
- b) to evaluate the importance of what has been identified (both as a cultural landscape and as individual items which make up that landscape)
- c) to propose ways in which the damage to the cultural heritage can be avoided or minimised.

The specification calls for a staged approach to assessment of the archaeological impacts of the development proposal involving:

1 A Desk Based Assessment

2 Field Survey

3 Trial Trenching

In addition, because of the limited time available to carry out the assessment and the limited area likely to be subject to disturbance, it was decided to carry out a further stage of work involving trial excavations following the desk based assessment and field survey.

3. ARCHAEOLOGICAL BACKGROUND

Although the proposal involves limited ground disturbance, it has considerable archaeological implications.

A Roman road runs south from the Roman fort at Segontium, crossing the river at some point. The precise course of this road, and the site of the river crossing, are not known, however, it is possible that this was in the area of the present bridge and therefore the proposed development may disturb any remains.

A bronze age cemetery comprising burials and associated artifacts (at least some of which were below burial mounds) was found near Bryn Seiont, some time prior to 1868. Again the precise location and extent of the site, one of the few bronze age cemeteries in Gwynedd, are not known, although the Ordnance Survey provides an approximate grid reference at SH482614. It is likely that the main focus of the site lies somewhere on the top of the ridge rather than below.

The remains of the railway embankments, bridges and junction (and possibly the site of a station) which formed part of the extensive system for bringing slate to Caernarfon (three

separate 'lines' are represented in a small area here) will also be affected, to a lesser degree, by the proposed work. The slate quarrying industry and its associated constructions (railways, housing etc) are of particular significance to the history of the county.

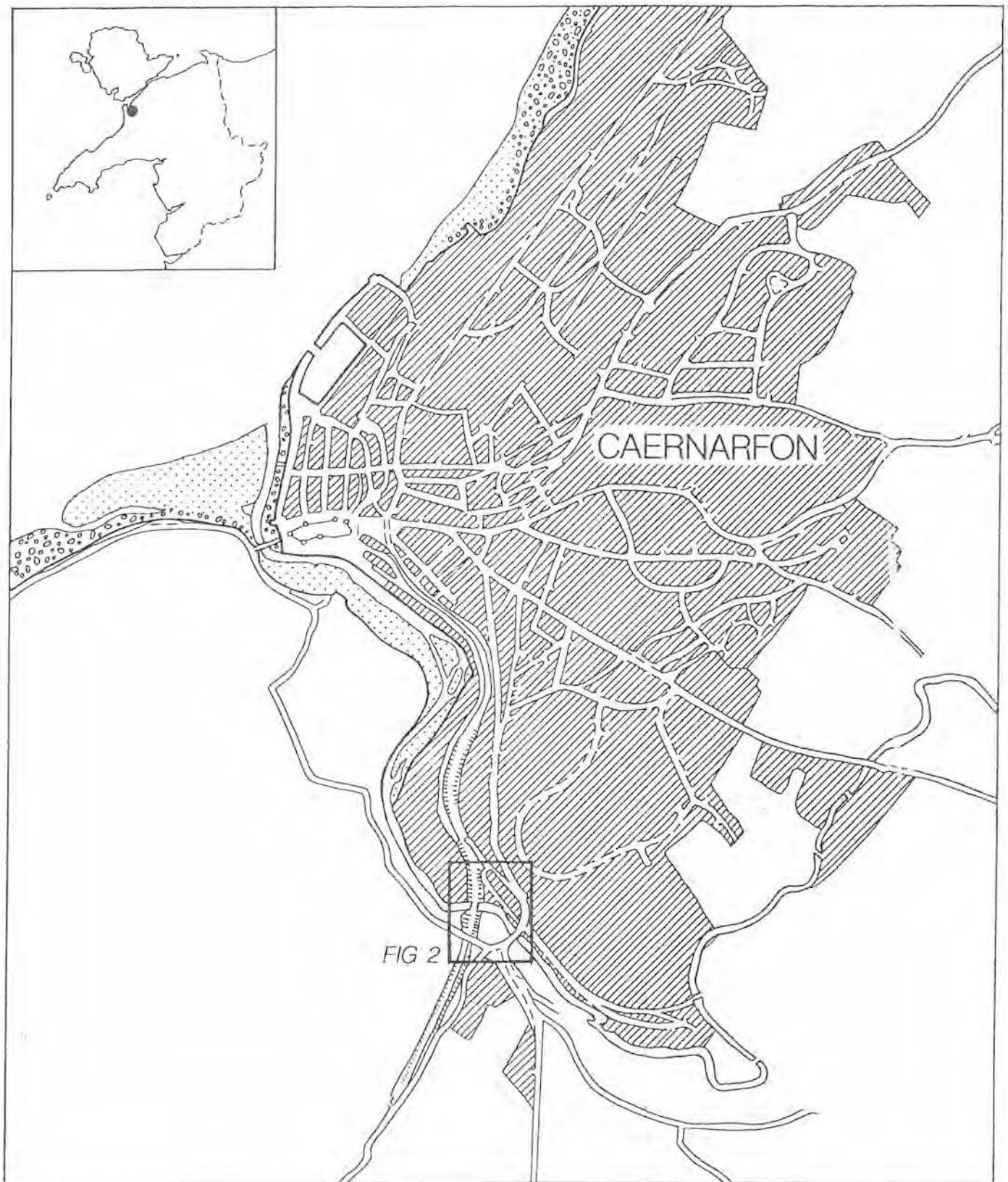


Fig. 1 Location map.

4. METHODS AND TECHNIQUES

STAGE 1 - Desk Top Study

Available early estate, tithe and O.S. maps and other documents were consulted at the Gwynedd County Sites and Monuments Record, the Gwynedd Archives (Caernarfon) and the University archive at the University College of North Wales (Bangor). Selected reference works were also consulted. Oral evidence was also gathered from local residents.

List of Maps Consulted

1578 - Saxton's Map of Caernarvonshire and Anglesey
1610 - John Speed Map of Caernarvon and Caernarvonshire
1795 - John Evans Map of North Wales
1880's - Tithe Map for Llanbeblig Parish (and schedule)
1889 - Ordnance Survey 1:2500
1900 - Ordnance Survey 1:2500
1918 - Ordnance Survey 1:2500
1953 - Ordnance Survey 1:2500

Other Texts and Documents

- Royal Commission on Ancient and Historical Monuments in Wales (Caernarfonshire Inventory) Vol II (1960)
- Atlas of Caernarfonshire, T.M. Bassett & B.L. Davies (1977)
- A History of Caernarfonshire, AH Dodd (1968)
- The Industrial revolution in North Wales, AH Dodd (1971)
- Narrow Gauge Railways in North Caernarfonshire, Vol I: The West J.I.C. Boyd (1981)
- A Description of Caernarfonshire (1809-11), Edmund Hyde Hall
- The Roads of North Wales 1750-1850, AH Dodd, Arch. Camb. Vol. LXXX, Part 1 (1925)
- A Regional History of the Railways of Great Britain, Volume 11: North and Mid Wales, Peter E. Baughan (1991)
- The Ancient Bridges of Wales and Western England, E Jervoise (1936)

The area was not suitable for aerial photographic survey due to dense vegetation cover and intense modern disturbance from roads bridges and railway lines converging in the area of interest. This time was put towards other aspects of the documentary search.

STAGE 2 - Field Survey

With the permission of landowners and tenants a two man team from GAT carried out the survey during the first week of October 1993. In general, weather conditions during the survey were good. Access and line of site were somewhat restricted by dense vegetation in Area B and C.

All areas within the extent of the proposed scheme were examined visually to locate and record features identified during the documentary search and any further sites of interest. Sites of potential archaeological/historical significance were located either directly onto enlarged 1:10000 O.S map sheets or surveyed with the use of Electronic Distance Measuring (EDM) equipment.

Each site or feature identified was recorded with black and white photographs at 35mm format, written descriptions and, where appropriate, measured field-sketches.

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 by 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 of such archaeological importance that it is recommended that they remain preserved and protected in situ.

Category B - Preservation/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 these sites is as yet undetermined, and they will need further investigation before they can be allocated to the relevant category.

STAGE 3 - Trial Trenching(see fig.2)

The central area (Area B) of the proposed development zone was trenched first. Unfortunately, this area is extremely difficult of access, being cut off by the river on the north, a steep railway embankment on the west, Pont Seiont on the east and residences and a steep natural slope on the south. It had been thought possible to access the area for machine excavation by traversing the river by means of a ford on the northwest side of Pont Seiont, however, recent heavy rain had swollen the river and made this unwise. It was therefore necessary to hand deturf and clear the trenches.

The area was heavily overgrown and verging on impassable. A path had to be cut into the centre of the area before work could commence. A roughly cross shaped area was laid out measuring c. 25m long and 15m wide stretching across the corridor of the proposed new road. This area was cleared of vegetation and inspected for features. A trench (Trench 1) was then laid out in the centre of this cleared area measuring 20m long and 1.3m wide across the axis of the proposed road and parallel to the present course of the river. Four pits (a,b,c & d) were then excavated at two metre intervals along this trench. This permitted the quick sampling of a strip spanning the corridor which could then be expanded should significant remains be encountered.

The area immediately to the north of the Seiont (Area A) was sampled by the laying out of two trenches each measuring 6m by 1.5m. Area A contains a raised flat topped terrace or platform with a distinct bank adjacent to the river. This appeared to be artificial in character and the trenches were located so as to sample areas on top of the terrace and away from it. Trench

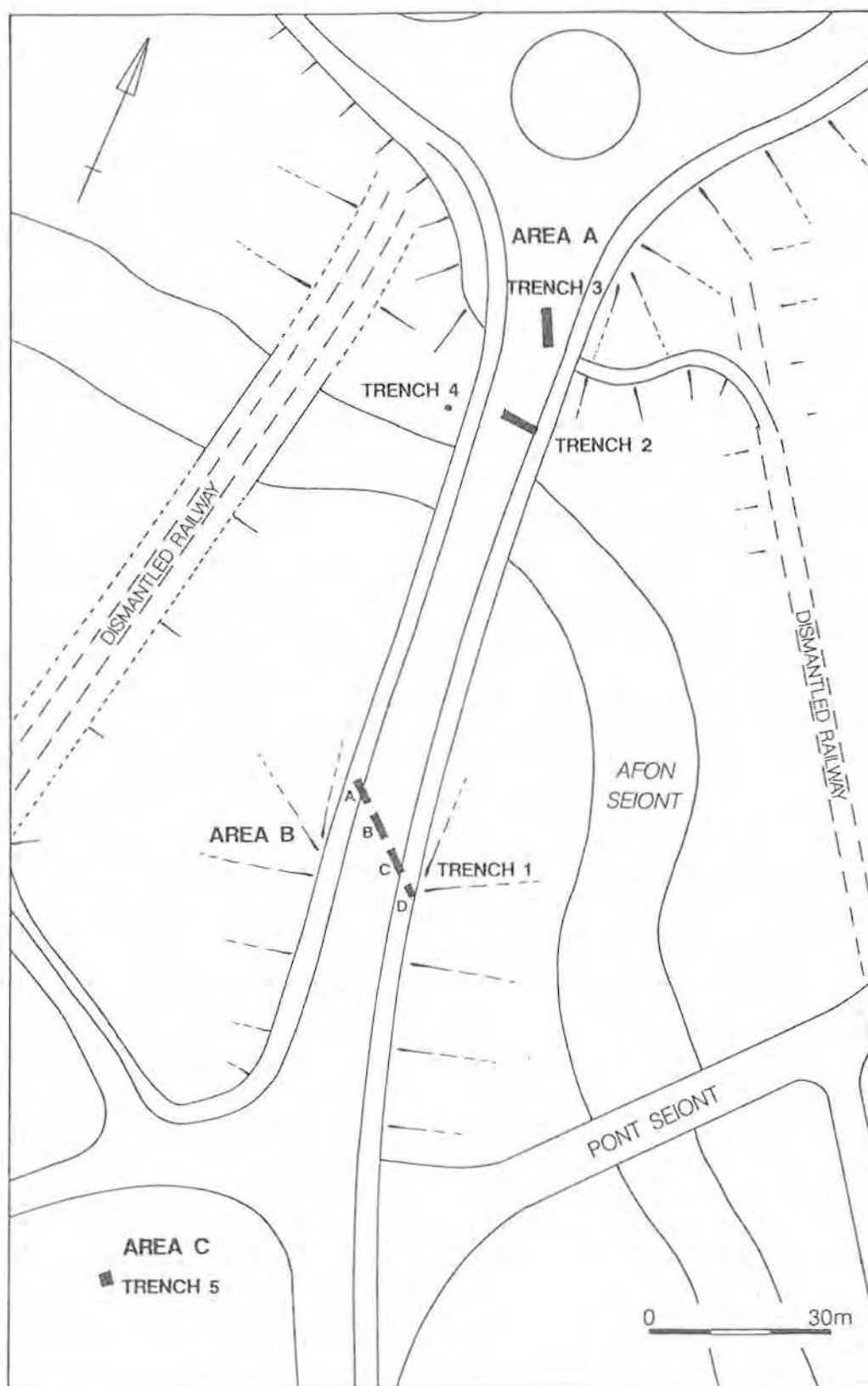


Fig. 2 Trench location.

Two was located near and parallel to the river at the base of a gentle slope which appeared to be the edge of the artificial terrace and Trench 3 was located in the centre of Area A on top of the apparent artificial platform. Both trenches were located within the corridor of the proposed road.

Area A serves as a public park owned by the District Council and comprises maintained grassed areas and planted trees. Because of the need to reinstate the trenches as neatly as possible and to minimise damage to the surrounding area, each trench was initially hand deturfed and the turfs stacked for relaying. Once deturfed, the trenches revealed what appeared to be modern makeup layers so it was decided to excavate a small sample pit 1m by 1.5m in the W end of Trench 3 before arranging large scale machine excavation. Eventually, a further small test pit (Trench 4) measuring 1.0m by 1.1m was located 4m from the E bank of the river at a particularly low area at the base of the 'artificial' terrace edge.

Area C was located to the south of Areas A and B in the triangle formed by the junction of Pant Road and the A 487. Trench 5 was located just below the crest of the slope that drops down from Bryn Seiont Hospital towards this junction. The trench was located as high up the slope as possible in the hope of picking up features or artifacts relating to the bronze age cemetery identified on the hill top by the SMR search (see above). The area is heavily overgrown with secondary woods and scrub. The trench measured 2m by 2m.

All of the trenches were hand cleared and excavated. Recording involved scaled plans at 1:20, scaled sections at 1:10, photographs in black and white, and colour transparencies at 35mm format, and written descriptions on standard GAT record forms. All trenches were backfilled by hand and Area A was returfed and reinstated.

5. RESULTS

STAGE 1 - Desk Top Study

Consultation of the Gwynedd County Sites and Monuments Record identified the following sites and finds within or in the vicinity of the development proposals:

- Bronze Age cemetery, Bryn Seiont Hospital

A small bronze age cup was found in a tumulus near Bryn Seiont. The cup was contained in a large cinerary urn which was destroyed at the time of the discovery. Several other sepulchral vessels are said to have been found at the same time.

- Roman road and river crossing, Pont Seiont

A Roman route south from the fort at Segontium (Caernarfon) is thought to run through this area in order to link up with the known Roman fort at Pen Llystyn.

- The Carnarvonshire Railway, and The Nantlle Railway
(see below)

Saxton's map of Carnarvonshire and Anglesey (1578) and John Speed's map of Caernarvon and Caernarvonshire (1610) both appear to show a bridge crossing the Seiont in the general area of the present crossing, however, these maps are of a small scale and are not accurate enough to positively locate the crossing point.

The present A 487 route became a turnpike in 1769 as part of the Caernarfonshire Turnpike Trust (Dodd, 1925).

E. Hyde Hall in his *Description of Caernarvonshire* (1809-11) mentions Pont Y Saint. He also remarks that "at Pont y Saint is placed the most productive turnpike in the county... the superior income arises from the carts bringing slates from the Llanllyfni quarries." The 1889 Ordnance Survey 1:2500 map indicates the site of an "Old Toll Gate" at the junction of Ffordd

Pant and Ffordd Bont Saint (the present A487). This feature is still indicated as late as the 1918 OS map.

E. Jervoise in The Ancient Bridges of Wales and Western England indicates that Pont Seiont was built in 1835 and mentions that there had been an earlier bridge (p.48).

An inspection of the tithe map (1880's) for the parish of Llanbeblig and the appropriate schedule revealed no significant fieldnames or features of interest in the development corridor.

In 1825 an act of parliament set up the Nantlle Railway Company to build a tram road down the Nantlle Valley from the copper mines and slate quarries to Penygroes, and then north to pass on the north side of Bryn Seiont and Pont Seiont crossing the Seiont River further to the NE opposite the present sewage works. Eventually, this line carried both freight and passengers in horse drawn narrow gauge trams.

In 1862 an act was passed to create the Carnarvonshire Railway running from Caernarfon to Pwllheli using some of the Nantlle line. Surviving elements of this railway are located on the west side of the proposed development zone comprising a massive linear causeway and a stone bridge over the Seiont (see gazetteer).

In 1869 a branch line was constructed to Llanberis providing freight and passenger communications between Llanberis and Caernarfon for the slate industry and local communities. Elements of this line run through the proposed development zone on the north east side comprising a linear causeway and a bridge over an access road to area A (see gazetteer). The line also passes under the A487 beneath a cast iron bridge dated 1869.

A railway station is indicated by Boyd in Narrow Gauge Railways in North Caernarfonshire, located just to the west of Pont Seiont. It was erected as a temporary station during the construction of the Caernarfon-Llanberis line in 1869. The station, known as Morfa Station, was dismantled a year later in 1870. Both the Caernarfon-Pwllheli and Caernarfon-Llanberis lines were closed in the early 1960's

STAGE 2 - Field Survey

SITE GAZETTEER

Site locations are illustrated on the accompanying map (fig. 3)

004. Railway Embankment and Bridge - Category B

Located on the west side of the proposed route corridor, comprising a massive linear embankment some 10m high and a twin arched stone bridge. Constructed by Carnarvonshire Railway c. 1864. Both the bridge and embankment remain in good condition and are presently used as a cycle path.

005. Railway Embankment and Bridge - Category B

The route of the former Llanberis branch line runs through the survey area on the NE side. The route, now a cycle track, comprises a linear embankment and a small bridge which crosses the access road running into Area A. The branch line was constructed c. 1869.

006. Site of Morfa Railway Station - Category D

Documentary evidence indicates the former site of a temporary railway station alongside the Llanberis branch line just to the west of Pont Seiont. No surviving evidence of this structure could be identified.

007. River Fording Point - Category C

The location of a former ford was identified c. 20m to the NW of Pont Seiont on its northern bank. The feature was defined by a 3.0m gap in the river wall and associated loose stone

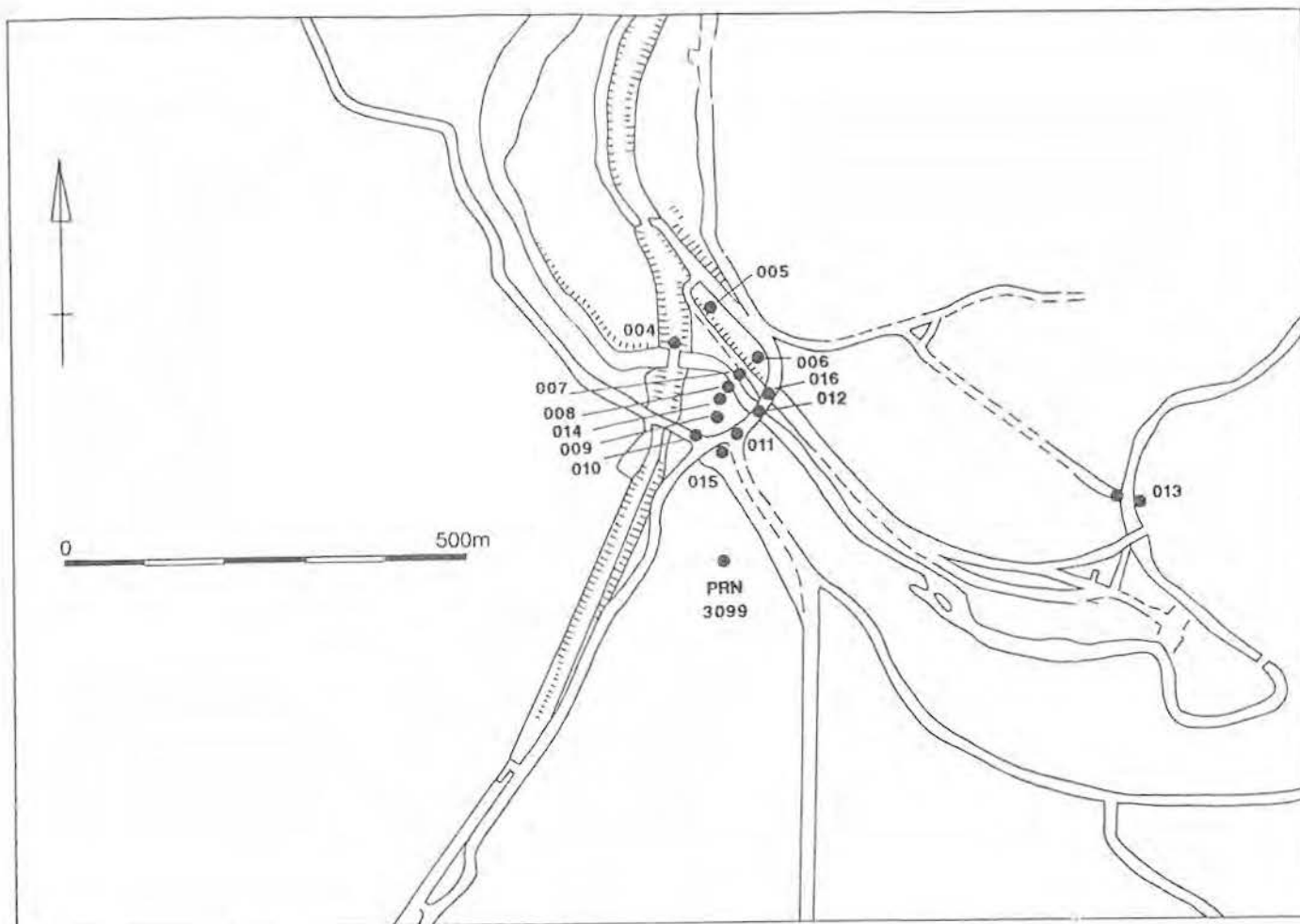


Fig. 3 Site location.

'ramp' forming an access point from the riverbank down to the water's edge. The crossing is now out of use and the interruption in the river wall has been filled in by a blocking wall set back c. 3m from the waters edge. Site 007 is associated with site 008 directly across the river.

008. Field Access (Area B) - Category C

A former gap in the boundary wall running alongside the river bank in Area B was located opposite the ford crossing point described above (site 007). A 3m wide portion of the wall was observed to be a later infill of similar construction to the surrounding wall but standing c. 0.30m lower. Butt joints in the wall masonry mark the extent of the blocking.

This feature possibly identifies the other side of the ford on the south bank of the river and the point of access to area B. Evidence for a man-made ramp for this side of the river was not evident, perhaps due to the high water level at the time of the survey. However, some large boulders were visible just protruding through the water which may be indicative of some sort of construction to mount the bank on this side of the river. Detailed recording was not possible at the time of the survey due to high water levels.

009. Site of Orchard House - Category C

Survives as a ruin and spread of debris, it has at least one roofed subterranean room still largely intact. Identified during the desk top as a former residence, the building does not appear on the Tithe Map (1880's) but is on the 1889 OS map.

010. Gate Post - Category C

A slate gate pillar stands on the northern side of Lon Coed Helen c. 25m from its junction with Pant Road. Measuring 2.0m high by 0.30m broad and 0.15m in width the pillar is butted by a low (1.2m) wall of regularly coursed stone blocks on its northern side. A further, shorter (1.7m), gatepost stands between the low wall and the adjacent wall of Orchard Cottage. Iron hinge fittings survive on each post, and the low wall retains the remains of railings surviving as low stubs c. 0.01m high. The feature represents the remaining elements of an ornate wrought iron gateway which occupied the entrance to Lon Coed Helen until the 1940's.

011. Pont Seiont Toll Gate - (no recording necessary)

Identified during the documentary stage. No visible evidence for the toll-gate remains.

012. Pont Seiont - Category B

Different building styles are apparent looking at the bridge from the NW side standing on the footpath by the river. Here the stonework of the main bridging arch on the north bank is of a noticeably neater dressed block construction than that forming the smaller arch for the Llanberis branch railway line. The latter appears to be of randomly coursed irregular blocks.

A plaque bearing the inscription: "Seiont Bridge Erected 1835, W. G. Owen Contractor" can be seen on the inside of the S parapet of the present Bridge.

013. Bridge Abutments - (outside of corridor; no recording)

Located between the Brickworks and Eryri Hospital, this feature was brought to the attention of the Trust by a local resident. Although well outside the area of the evaluation, claims that this was the site of the former Roman crossing required investigation. The bridge abutments are in good condition, the E bank abutment measures some 3.0m wide and 4.0m high comprising large square foundation blocks with large rounded boulders above. Slots to locate timber beam ends can be seen at the base of the W abutment facing the river. It was possible to identify evidence of what appeared to be different phases of construction in the stonework.

014. Pool - Category C

A sunken rectangular brick built structure aligned parallel to the river. It measures 5.0m long and 2.5m wide with a depth of at least 1.0m. Sections of copper piping can be seen in places still in situ. The pool is rendered on the inside and appears to have an outlet channel located at its southern end. There is a drain into the river surviving c. 10m to the SE of the pool which may be related. To the SW of the pool is a low earth bank c. 0.50m high roughly 'L' shaped in plan it appears to mimic the outline of part of the pool and may represent upcast from the excavation of the pool. The area is heavily overgrown.

015 Toll House? - (no recording necessary)

The Pont Seiont toll gate was identified during the documentary search (see above). Foundations and rubble located in thick undergrowth at the base of the slope in Area C may represent the remains of the gate house. This was formerly located on the corner where the road forks on the south side of the bridge. A building is shown in this position on the 1918 OS map.

016 Iron Bridge - Category B

At the NE end of Pont Seiont the road is carried over a steel bridge between the valley side and the main bridge abutment. A plaque inscribed: "H. Owen & Son 1869 Carnarvon" is mounted on the outside of the SE parapet. This is the date of construction of the Caernarfon to Llanberis branch line that goes under Pont Seiont at this point.

STAGE 3 - Trial Trenching

Area A

The test pit in the W end of trench 3 was excavated to a depth of 1.9m. This revealed a deep sequence of modern dumped layers. No evidence for an old ground surface was uncovered. These layers appeared to be similar to that exposed by the deturfing of Trench 2. Therefore it was decided to excavate a further trench (Trench 4) at the lowest point possible in the area in the hope of striking the old ground surface or river deposits. Trench 4 was excavated to a depth of 0.8m but revealed a similar sequence of modern dumped layers as Trench 3 with no sign of the old ground surface. The trenches were subsequently abandoned.

Area B

Test pits a,b,c,and d within trench 1 were excavated to a depth of between 0.65 and 1.0m. Deposits encountered at these depths varied from a loose waterbourne shale deposit (004) with varying percentages of rounded pebbles in Trenches B, C, and D, to a sticky grey clay (003) with iron panning at its interface with overlying deposits in Trenches A and B. (See Fig. 4). Excavation in Trench B revealed this shale deposit present in B, C and D to be a floating context overlying the grey clay. Overlying both deposits described above and homogeneous to all four trial pits was c. 0.30m of a firm grey silty clay containing inclusions of modern finds: pottery, coke and clinker, glass, bone and slate. This layer was overlaid by a dark grey silty clay topsoil (001) and root mat which also contained modern finds. No features of archaeological significance were present and no extensions were made to the sample area.

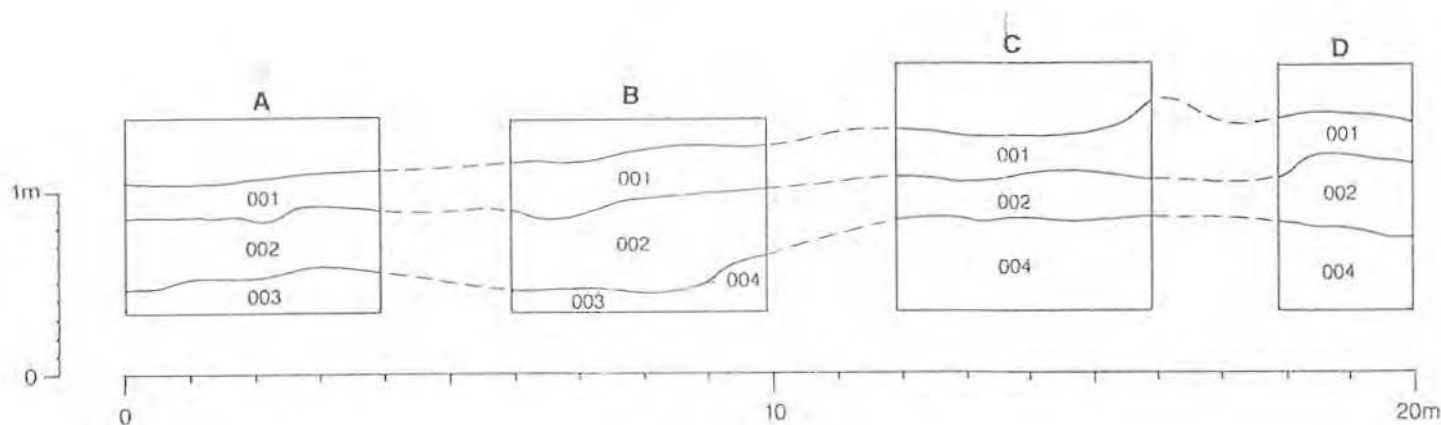


Fig. 4 Representative SW facing section - Trench 1.

Stratigraphic sampling by Trial Pit.

Area C

Trench 5 was excavated to a depth of 1.5m (see Fig.5) The upper 1.0m comprised a series of loose stony soil layers (001, 002, 003, 004) containing modern pottery and other finds. The lowest layer was a compacted darker greyish sandy clay (005) which contained a single struck flint flake. This layer overlay natural (006) and may represent the old buried ground surface.

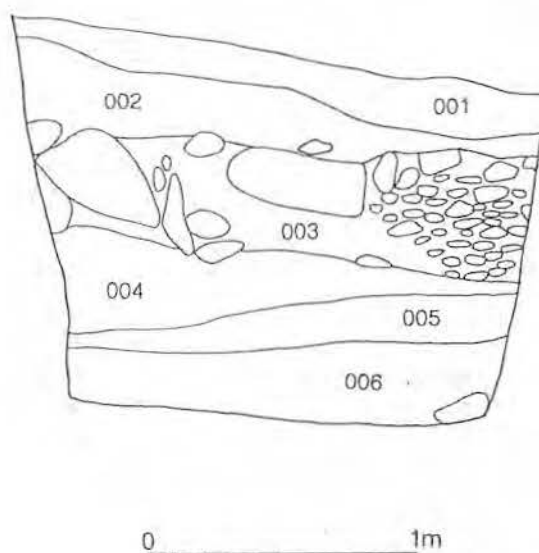


Fig. 5 N facing section - Trench 5.

6. INTERPRETATION

It would appear that Area A has been subjected to considerable dumping of landfill in the recent past. It is likely that this side of the river would have previously been similar in character to Area B, ie marshy wet clays. Therefore this dumping of material may have been deliberately designed to raise the general level of the land, to dry the area out, possibly to create the present park with its drives and walks. The river bank is canalised with concrete walls on this side and material may have been dumped up behind these as part of an integrated strategy to improve the area.

Local people stated that a tip had been located over the other side of the adjacent railway embankment.

Area B appears to represent a marshy floodplain that is slowly drying out. The lower stony deposits may represent ancient river deposits, perhaps changing river channels. The low lying and potentially wet character of the area would make it an unlikely area for settlement. Any structure here would need substantial foundations to lift it above the wet clays and one would expect any road to require a significant raised causeway. No sign of any such features could be discerned. The name of the now demolished adjacent building (Orchard House) and detail on the OS map for 1889 suggest that the area was cultivated as an orchard at least in recent times.

No documentary evidence was uncovered to identify the date and use of the river fording point (site 007/008). It appears likely that it is a fairly recent construction to gain access to area B, perhaps following the construction of railway embankments to the West which would have cut off access to the area. It would also seem to predate the rectangular pool (site 014) as this feature with its attendant bank obstructs passage from the ford into Area B. The ford does not appear on any maps consulted during the documentary search.

Area C also seems to have been subjected to considerable dumping and making up of the ground. This may be an attempt to extend the usable space at the top of the hill by terracing out. New piles of accumulated earth and rubbish were seen on the hill edge at the time of the excavations so this is a continuing process.

It would seem reasonable to assume that any features associated with the bronze age cemetery identified at Bryn Seiont Hospital should be located on the top of the hill. The admittedly limited trial work undertaken has produced little to refute that interpretation. The single struck flint flake recovered, though tantalising, is most likely to be residual, possibly eroded out from above. It does however serve to suggest that there was, or perhaps still is, a site of some importance on the hill top.

Inspection of the stonework of the present Seiont road bridge has indicated the possibility that there is more than one phase of construction evident. One possible interpretation is that though the central main body of the bridge was re-constructed in 1835, there may be elements surviving of an earlier bridge which have been incorporated into it.

The remnants of another apparent bridge across the Seiont at the old Brickworks site, though outside of the proposed development corridor, was seen as having potential significance for the assessment. No sign of the crossing is identifiable on either Speed's 1610 map or Evan's 1795 one. However, further documentary work produced a reference to a railway project of about 1845. A map in Baughans' A Regional History of the Railways of Great Britain appears to show the planned route of the North Wales Railway crossing the Seiont at the exact spot of Site 013. The project was never completed and was surrounded in difficulties. The visible remains suggest two phases of construction, and so it is just possible that, if this was a railway bridge, it may have used the ruins of a still earlier structure for its foundations.

The bridge is shown apparently intact on the 1889 OS map but appears to be dismantled on the 1918 edition.

7.RECOMMENDATIONS FOR FURTHER WORK AND MITIGATORY MEASURES

Category A Sites - Preservation in Situ

- none

Category B Sites - Preservation/Detailed Recording

- 004 Railway Embankment and Bridge
- 005 Railway Embankment and Bridge
- 012 Pont Seiont
- 016 Iron Bridge

Category C Sites - Recording by Photograph and Description

- 007 River Fording Point
- 008 Field Access
- 010 Gate Post
- 014 Pool

Category D Sites - Watching Brief

- none

Category E Sites - Further Investigation Required

- none

Category B Sites

The four sites listed in this section will remain largely undisturbed by the present proposal and no further work is necessary in most cases. This will apply to sites 012 and 016 which belong to the present assemblage making up the Pont Seiont crossing. However should any alterations to the appearance or structure become necessary it is recommended that a detailed photographic survey be carried out. It is anticipated that sites 004 and 005 will be subject to considerable disturbance during construction work and it is therefore recommended that they be recorded by detailed photographic survey and written description.

Category C Sites

In the case of sites in Category C, adequate recording of 007, 008, 009, and 010 has been achieved during the field survey stage and no further work is necessary. Site 014 which was heavily overgrown at the time the work was carried out it is recommended that a photographic and written record be undertaken before its destruction.

8. NON-TECHNICAL SUMMARY

The main sites identified by the archaeological assessment reflect the rapid developments in transport and communications which took place in Wales throughout the 18th and 19th centuries: the railways, the turnpike, the bridges. Though individually they may not inspire, seen as a group and converging together here in such a limited geographical space, they emphasise the importance of this particular place for the development of local communications, industry and history.

It is understood that the existing railway features: the two railway embankments (the Caernarfon-Pwllheli line and the Caernarfon-Llanberis line) with their bridges: the stone bridge across the Seiont, and the cast iron bridge at the NE end of Pont Seiont, as well as the present Pont Seiont road bridge are largely to be retained. It is recommended that any planned alterations to these features should be preceded by full recording. This might involve a simple photographic 'feature and setting' survey in the case of the embankments, with more detailed scaled photographic recording of the bridges and other structural features.

It would appear that the small bridge that allows access to the river beneath the Llanberis line embankment will be destroyed. It is recommended that this feature be recorded photographically.

The brick pool between Orchard House and the Seiont is likely to be destroyed by the development proposal. The feature is heavily overgrown and, though undoubtedly modern, its function is unknown. It is recommended that the feature be cleared to facilitate a quick photographic survey and description.

GWYNEDD ARCHAEOLOGICAL TRUST

Suggested Project Design for Archaeological Assessment of

A487 PONT SEIONT, CAERNARFON

Stage 1 Desk-based Assessment

Stage 2 Field Search

Prepared for Welsh Office Highways Directorate

1. INTRODUCTION.

As part of its improvements to the A487 Bangor - Fishguard Trunk Road, the Welsh Office is proposing improvements to Pont Seiont, Caernarfon (SH482616). The intention is to build a replacement across the river in between the existing road and former railway bridges which will connect the existing South Road, Caernarfon to the A487 north of Bontnewydd. The new bridge will be built across a fairly deep natural valley, and will involve constructing substantial embankments on the flood plain either side of the Afon Seiont.

2. THE ROUTE AND ITS ARCHAEOLOGICAL BACKGROUND.

Although the proposal involves limited ground disturbance, it does have considerable archaeological implications. Some of these have already been identified as:

1) A Roman road runs south from the Roman fort at Segontium, crossing the river at some point. The precise course of this road, and the site of the river crossing, are not known, and it is possible that the proposed works will affect them.

2) A bronze age cemetery comprising burials and associated artefacts, at least some of which were below burial mounds, was found near Bryn Seiont, some time prior to 1868. The artefacts are now in the National Museum. The precise location and extent of the site, one of the few bronze age cemeteries in Gwynedd, are not known, although the Ordnance Survey gave them the approximate grid reference of SH 482614, and it is likely that the site lies somewhere on the top of the ridge rather than below.

3) The remains of the railway embankments, bridges and junction (and possibly the site of a station) which formed part of the extensive system for bringing slate to Caernarfon (three separate 'lines' are represented in a small area here) will also be affected, to a greater or lesser degree, by the proposed work. The slate quarrying industry and its associated constructions (railways, housing etc.) are of particular significance to the history of the county, and it is imperative that any remains connected with these are adequately recorded if they are to be altered or removed.

3. THE ASSESSMENT BRIEF.

For an Environmental Assessment it is necessary to identify 'significant adverse effects' on the cultural heritage. There are three principal types of impact on archaeological sites and cultural features: - direct physical impacts such as landtake or demolition; indirect impacts such as alterations to the watertable; and loss of amenity.

The aims of this assessment, therefore, are

- a) to identify and record the cultural heritage of the area to be affected by the proposals;
- b) to evaluate the importance of what has been identified (both as a cultural landscape and as the individual items which make up that landscape); and
- c) to propose ways in which damage to the cultural heritage can be avoided or minimised.

The Agreed Procedures Governing the Archaeological Response to the Trunk Road Programme in Wales (paragraph 3.3) states:

All archaeological assessments will involve a detailed evaluation of the relevant information within the Sites and Monuments record, a study of relevant aerial photographic collections and easily available documentary sources, walking the whole route, plotting or surveying all cropmark or earthwork sites affected by the route, undertaking field pick-ups on located sites and commissioning geophysical survey where relevant.

This staged approach is the one which is now being advocated.

In our original response to this proposal (letter to Mouchel & Partners dated 15/06/93), we outlined certain recommendations for a suitable programme of archaeological work:

A) Fieldwork in the 'undisturbed' areas between the existing bridges to try to locate the remains (if they exist) of the Roman crossing and the line of the Roman road. As the area to the south of the river is completely overgrown, it is not easy to see how this might be best achieved; removal of the undergrowth would be the preferred option.

B) Any 'new' ground disturbance (i.e. areas not already under tarmac) around the junction with Pant Road and/or in the area around Bryn Seiont should be preceded by archaeological evaluation consisting of test pit excavation.

C) Any disturbance to remains associated with the railway(s) should be restricted to the absolute minimum, and all structures should be fully recorded before, during and after disturbance/removal by a suitably qualified archaeologist.

D) Any other buildings, structures or items of historical interest which are likely to be affected by the proposed works should also be fully recorded before work commences.

4. STAGE 1 DESK-BASED ASSESSMENT.

Due to the limited size of the scheme, the scope of the first stages of assessment will be restricted. It is suggested that work should concentrate on the following:

Gwynedd Archives - is an invaluable source of information of all kinds, including many of the items listed below.

Tithe maps - tithe map coverage of the area is thought to be good.

Estate surveys - it is not known what estate surveys might be relevant to this area at present.

Ordnance Survey maps - 1st edition 1" and unpublished 2" manuscript maps show much topographical detail missing from later editions.

National Monuments Record - contains information on sites which was not published in the Inventory, and information that has come to light since.

UCNW Archives - the college holds a considerable number of estate plans, papers and surveys as well as other maps and documents.

In addition, of course, the following may be considered useful:

General published works - Royal Commission Inventory, histories of Caernarfon and the area, and histories of the slate industry in the 19th century.

Aerial photographs - collections covering this area are held by the Countryside Council for Wales, Gwynedd County Council, the Royal Commission, the Welsh Office Aerial Photographs library, Arfon Borough Council and possibly others.

Listed buildings - the full list of Listed Buildings is held by Cadw.

Local authorities - for information on Conservation areas and other similar planning constraints.

Local society records - Caernarfonshire Historical Society is a well-established and active Society.

Geotechnical data - any boreholes, trial pits etc. already carried out in connection with the scheme should be examined for archaeological data.

Oral evidence - as appropriate and available will be used.

The above list is not intended to be exhaustive, but indicates the wide range of sources available.

The usual study of the available place-name evidence will be limited in this instance, but should nevertheless be carried out in an attempt to identify the location, extent, date and character of archaeological sites and features of cultural heritage interest within the study area. Some form of landscape analysis will also be required, so that the sites can be put into their proper landscape context. Areas where any archaeological remains are likely to have been destroyed by past and present buildings and features are also to be noted.

5. STAGE 2 FIELD SEARCH.

This part of the assessment will likewise be limited, but should still involve a team of two persons (the minimum number allowed under Health and Safety Regulations). The area to be affected will be examined visually, and any features of interest recorded (short description, photograph, map position) all sites encountered. This will not involve any ground disturbance. The aim of this stage of the work is twofold: firstly to verify the documentary information; and secondly to identify any further sites of archaeological and historical interest which exist as above ground features, and any areas likely to contain buried features which should be assessed by other means.

6. STAGE 3 GEOPHYSICAL SURVEY.

Due to the nature of the ground cover, and the fact that there is no scope for moving the proposed embankments, it has been decided that geophysical survey would probably not be applicable in this instance, and that resources should instead be concentrated on

assessment by trial trenching.

7. STAGE 4 TRIAL TRENCHING.

In this instance, trial trenching will be the most useful assessment tool in that it should enable us to see whether the proposals will affect any remains of the Roman bridge crossing, or the putative bronze age cemetery. In fact it is felt that this stage will be the most useful in determining the full archaeological implications of the scheme and should be carried out at the earliest opportunity. Four trenches are proposed:

- A) on the north side of the river towards the end of the proposed embankment, c. 6m x 3m; and
- B) on the south side of the river, two trenches (i and ii) both c. 6m x 3m towards the end of the proposed embankment.
- C) a small trench perhaps 2 m x 2m on the corner of the existing road junction where ground will be disturbed by the proposed work.

The approximate positions of these trenches are shown the accompanying map: the precise locations will depend to a large extent on existing ground cover, undergrowth and access.

8. REPORT.

Following the completion of work on stages 1, 2 (3) and 4 as outlined above, a report will be produced for submission to the Welsh Office Highways Directorate and Cadw, and a copy will also be made available to the landscape consultants for inclusion in the Draft Environmental Statement. The final format of the report will be subject to discussion between GAT and the landscape consultants but at present it is suggested that it will present a full list of all field data, incorporating this where appropriate with previously available information about the archaeology of the area, referring where necessary to the fuller site archive. A copy of the draft Statement should be made available to the Trust for comment and correction before it is published.

A non-technical summary of the report will also be produced, outlining the information, sites and areas of principal interest and concern and recommendations.

If necessary, a computerised database will be established, cross-referenced to the maps, descriptions, photographs and report recommendations. To assess the importance of sites and to allow the appropriate mitigatory action to be carried out for each, it is proposed that a framework of basic categories be established, and that each site is allocated to a particular category, graded according to its relative importance using the non-statutory Criteria for Scheduling Ancient Monuments as laid out in Annex 3 of PPG 16, and/or criteria for Listed Buildings. The following five categories are suggested.

Category A - Preservation *in situ*.

This would include sites of such importance that it is recommended that they remain preserved and protected *in situ*.

Category B - Detailed recording.

This would include sites for which preservation *in situ* is the preferred option, but detailed recording (either by full excavation or standing building analysis and controlled dismantling) might be an acceptable alternative if damage or destruction cannot be

avoided.

Category C - Recording by photograph and description.

Sites in this category will probably form the majority. They will include most landscape features such as walls, tracks etc, many of which will be recent in origin. An adequate record of these can be achieved by written description and photograph, and possible survey by Electronic Distance Measuring equipment.

Category D - Watching brief sites.

This category is meant to deal with possible 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). The whole route will need to be the subject of a watching brief following top-soil stripping as some sites will inevitably only become apparent at this stage.

Category E - Sites needing further investigation.

Sites whose importance or nature are as yet undetermined (e.g. slight earthwork features), and which will require further work before they can be allocated to categories A - C, should temporarily be placed in this category, with recommendations as to what further field evaluation techniques are considered necessary. By the end of the assessment it is intended that there will be no sites remaining in this category.

The report will specifically include the following:

- 1) A copy of the agreed Project Brief.
- 2) The results of the assessment in the form of a plan of the proposals, showing the positions of all sites of archaeological and historical interest, the trial trenches and other information as appropriate.
- 3) A full list of all sites in number order with brief description.
- 4) A written description of the excavation of the trial trenches and the results thereof.
- 5) Drawn and photographic material relating to (4) where appropriate.
- 6) A full list of categories and sites included in each.
- 7) A methodology explaining the allocation of sites to particular categories.
- 8) A map showing areas of greater and lesser archaeological potential, if appropriate.
- 9) A methodology explaining how these areas have been defined.
- 10) An interpretation of the results, placing sites in their archaeological and historical context.
- 11) A representative sample of the photographic survey, showing views of the sites considered to be of particular interest.
- 12) A list of mitigation measures which will be taken to minimise damage to archaeological sites or remains at risk from the proposal, including recommendations for what further work (i.e. further excavation, watching brief, recording of structures) will be required before the start of works or during the scheme.

13) Other archaeological information which has been recorded during the course of the work.

14) A full bibliography of sources consulted.

An agreed number of copies of the report will be submitted to Mouchel & Partners, the Welsh Office Highways Directorate and Cadw within a mutually agreed time-scale (see below). In addition, copies will be lodged with the county Sites and Monuments Record at the same time on the understanding that this will become a public document after an appropriate period of time (generally not exceeding six months).

9. ARCHIVE.

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. All plans, photographs and descriptions will be labelled and cross-referenced, and lodged in an appropriate place (to be decided in consultation with the Sites and Monuments Record and Cadw) within six months of the completion of the project.

10. MONITORING.

The project will be monitored by Cadw. It is suggested that monitoring meetings are arranged as follows:

- 1) A preliminary meeting at the start of the work.
- 2) A progress meeting during the fieldwork stage.
- 3) A meeting to discuss the draft report before final submission.

In addition, it is intended that regular liaison be maintained between GAT and other specialists working on the environmental assessment as mentioned above.

Finally, it is suggested that a meeting between the Welsh Office Highways Directorate, Cadw, Mouchel and Partners and Gwynedd Archaeological Trust may be useful, following submission of the report, to discuss the findings of the assessment and the recommendations for further work.

