
Unit 1 Llandygai Industrial Estate



Archaeological Assessment

GAT Project No. 1948

Report No. 697

October 2007

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Prepared for Aurora Property Company Limited

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UNIT 1 LLANDYGAI INDUSTRIAL ESTATE, BANGOR (G1948)

PROPOSED DEVELOPMENT

ARCHAEOLOGICAL ASSESSMENT

SUMMARY

An archaeological assessment has been carried out prior to a proposed development of a former factory site at Unit 1, Llandygai Industrial Estate, Bangor, Gwynedd. The proposals comprise plans to demolish the existing buildings and partially change the use of land to provide buildings consisting of classes D2, B1, B2 and B8, including assembly and leisure, industrial, business and storage. Planning consent was granted subject to a number of conditions, including a programme of archaeological works. The initial mitigation phase required an archaeological assessment involving a site visit and analysis of the archaeological record.

The site was originally acquired for commercial development in 1961 and aerial photography of the development area carried out by J.K. St. Joseph in the early 1960's and subsequent excavation by C. Houlder in 1966-7 revealed a complex multi-period site comprising elements from the early Neolithic to the Medieval period. Dating from the later Neolithic period was a sanctuary consisting of two large henge monuments (A and B). The largest (Henge A), measured c.90m in diameter, whilst Henge B was found to lie on the site of an earlier Neolithic house. Between the two henges was the western end of a cursus (Site C), running along the gravel ridge towards the Ogwen valley for some 130m. The larger henge had a single entrance, the smaller had two entrances and contained deposits of Beaker pottery. A number of Bronze Age burials clustered around the sanctuary. To the west of the cursus was a small Hengiform Monument (Site E) and a large ditched enclosure (Site D). A small round barrow of Bronze Age date (Site F) was located to the northeast of Henge B. Later activity was represented by a small Late Bronze Age hearth in the ditch of Henge B and at this period or later at Henge A, a more significant settlement was established with at least two wooden houses and several 4-post structures. At the end of the 1st century AD there was short-lived activity outside Henge A. In the early medieval period (5-7th centuries AD) a cemetery of over sixty graves was established over the area of the cursus. The site was subsequently developed and a large industrial unit was built within the development area. This unit operated as Wardle Storeys until its closure in 2004.

The proposed development at Unit 1 incorporates the location of Henge A, the cursus (Site C) and the Hengiform Monument (Site E), as well as the later activity at Henge A and the cursus. It does not affect Henge B or Sites D and F. A large portion of Henge A was stripped and recorded in 1966/67, and a large excavation slot was cut through the western side of the henge ditch. The later activity within the henge was cleaned and planned and the central and western area within the henge excavated. At least half of the cursus was excavated, including the western and eastern ends. The excavation of the centre of the cursus identified the early Medieval graves, which were cleaned and planned and eighteen examples excavated. The hengiform monument was completely excavated.

It is most likely that the construction of the industrial estate had an impact on the archaeological remains but it is unclear at this stage to what extent the archaeological features have survived. The southern end of Henge A is beneath the existing factory and the northern end is part of a landscaped area, whilst the location of the cursus is beneath the southeastern end of the factory and an ancillary building. The hengiform monument is also located beneath the factory.

The potential still remains, however, for other features not identified during the 1966/67 excavation programme. The features excavated at that time were targeted as a result of aerial photography and an examination of the wider area was not conducted as a result. The results of the evaluation and excavation programme conducted at Parc Bryn Cegin by the Gwynedd Archaeological Trust in 2005/6 (GAT Reports 595 and 666), to the southeast of the development area and the geophysical survey of the cricket club grounds to the immediate east of the development area, both point to the wealth of prehistoric activity in the local vicinity and highlight the potential for further discoveries.

Due to the potential for surviving archaeological remains at the location of the features identified during the 1966/67 excavation programme, as well as further potential unidentified features, an

examination of the area through trial trenching would be recommended as would a basic record of the factory prior to its demolition.

1. INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by Aurora Property Company to undertake an archaeological assessment in advance of the development of Unit 1, Llandygai Industrial Estate as detailed in Drawing No. C06A/0648/16/AM (centred on NGR SH5940071180). This plot of land comprises an area of approximately 4.5 hectares, located to the southwest of the current entrance into the industrial estate. A factory was previously sited across part of the area. The factory was closed in 2004 and an ancillary block was demolished. The land to the west and north of the factory is currently utilised as storage and/or parking.

An archaeological assessment has been requested in advance of planning determination by Gwynedd Archaeological Planning Service. The assessment has been requested because of the high archaeological potential of the site due to its location within an area of known multi-period activity which includes a group of Late Neolithic monuments, an Iron Age settlement and an early Christian cemetery. These archaeological features were identified during excavations undertaken in this area in 1966-7 in advance of commercial development (Lynch, F. & Musson, C.R. (eds). 2001). The plot area affected by the proposed development overlies part of the excavation area and includes the site of a Neolithic Henge Monument (Henge A), c.90.0m in diameter, dated to the third and fourth millennia BC, a Cursus (Site C), a Hengiform Monument (Site E) and an Early Medieval cemetery.

Recent excavation in advance of construction at the 36 hectare Bryn Cegin Business Park to the southeast of Llandygai Industrial Estate has revealed further extensive archaeological remains. These include an early Neolithic building, late Neolithic pits, fourteen burnt stone mounds, a Bronze Age ring groove round house and late prehistoric settlement (Kenney, J. 2007 *Recent Excavations at Llandygai*. GAT Report 666; see Figure 3 for the location of these features).

An archaeological assessment undertaken in 2005 in advance of the Parc Bryn Cegin development examined the areas to the south and east of the development area being assessed here (GAT Report 565). The 2005 assessment also reviewed the results of a geophysical survey undertaken in 1992, and took into account evidence from aerial photography. It is clear from this that a wealth of archaeological remains lies south and east of the development area, and particularly in the area partly occupied by the cricket pitch. Many of these features are thought to be prehistoric in origin, and it is known they include the continuation of the cursus that lies partly within the development area.

2. SPECIFICATION AND PROJECT DESIGN

A brief has been prepared by Gwynedd Archaeological Planning Service (GAPS; reference D1086). The brief states that the programme of archaeological works to mitigate the impact of the development will comprise a two phased approach (D1086; para. 4.1):

- **Mitigation Phase 1: Archaeological Assessment.** This should comprise a site visit and careful analysis of the original excavation report (Lynch & Musson 2001); detailed soil and geological information, including borehole data (if available); the siting of existing and demolished structures, below ground interventions and substantial programmes of earth moving. This phase will be subdivided into two parts, of which the first part will be a desk-based analysis and field visit, whilst the second part will consist of field evaluation. The exact nature of the second phase of the works will be dependant upon the results of the initial assessment.
- **Mitigation Phase 2: Archaeological Excavation.** The purpose of the excavation would be to create an archive record (preservation by record) of archaeological deposits or structures. Excavation, comprising open area excavation, should consist of areas identified as a result of the archaeological assessment.

The current report incorporates the first part of **Mitigation Phase 1**.

The project has been undertaken according to guidelines specified in *Standard 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. Measures to mitigate the effects of the improvement work on the archaeological resource were to be suggested.

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

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

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, with recommendations for field evaluation if it is required.

3 METHODS AND TECHNIQUES

3.1 Desk-top Study

This involved consultation of maps, computer records, written records and reference works, which make up the Historic Environment Record (HER), located at Gwynedd Archaeological Trust (GAT), Bangor. The archives held by the Gwynedd Archives, Caernarfon, were also consulted, and so were the Penrhyn manuscripts at Bangor University Archives. Secondary sources, as listed in section 6 below, were consulted to provide background information.

3.2 Field Visit

The field visit was carried out on 11th June 2007. The aim of the field survey was to inspect the development area and to assess the impact of the development on the historic landscape. The present condition of the site was recorded and the results are given below (section 5).

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.

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.

3.3.1 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. In this case several areas of unknown potential have been allocated to this category. These require environmental sampling which should be carried out during the pipeline works.

3.3.2 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 study area, 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.

3.4 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 measure 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.

4 ARCHAEOLOGICAL BACKGROUND

4.1 Topographic Description

The development area (Figure 1; SH59507120) lies on a flat summit of a gravel ridge flanked by the deep valleys of the Cegin and Ogwen rivers. The ridge rises 40.0m OD on the Arfon plateau between the Menai Strait and the hills of Archllechwedd. The area is good agricultural land with deep soils, sands and gravels of the Arfon (Wick 1) series. The aspect is open but often windswept and cold. The site is currently occupied by an industrial estate, originally built in the late 1960's. The development area was originally part of a factory owned by *Wardle Storeys*.

4.2 Previous Archaeological work within the area

For the location of the archaeological activity within the vicinity of the development area, see Figure 2.

Archaeological excavations were undertaken in 1966 and 1967 within an area of some 15 hectares that underlies and surrounds the development area (Lynch and Musson 2001). These excavations are described in greater detail below, but the sites examined included two Neolithic henges, a cursus, later settlement sites, and an Early Medieval cemetery.

To the south of the development area is the site of the Bryn Cegin excavations (centred on SH 59207050), conducted by GAT between 2005 and 2006 in advance of the construction of a business park. The eastern end of the site covered the crest of a ridge forming the watershed between the Ogwen

and Cegin valleys. The ridge reached c.75m OD within the development area but rises further to the south. The site sloped down to the west from this ridge, with the western boundary on the banks of the Afon Cegin. Most of the site was sloping, some parts more steeply than others, and the slopes generally face north-west.

The two areas of excavation (those undertaken in 1966/7 and those in 2005/6) are no more than 90.0m apart at the closest point and together form an area of landscape in which the prehistoric activity is more extensively and intensively recorded than any comparable area in north-west Wales (Kenney 2007).

A geophysical survey of the area to the east of the proposed development was undertaken in 1992 at what is currently the location of the Bangor Cricket Club (Smith, 2005: 11; see Figure 3). Both magnetometer and resistivity surveys were undertaken. Numerous “anomalies” were recorded, including post-medieval field boundaries and tracks. The most significant feature was the continuation of the *Cursus* recorded during the 1966-67 excavation programme, whilst several circular features were identified as potential Bronze Age burial mounds (*ibid.*).

An aerial reconnaissance survey of northwest Wales was undertaken by RCAHMW in July 2005 (Toby Driver, *Archaeology in Wales*. Volume 45, 2005: 148). Two new cropmark enclosures were discovered in the park of Penrhyn Castle c.700m north of the development area. The first (Penrhyn Park Enclosure I (SH59627204) NPRN 403359) is an oval enclosure defined by a narrow ditch, c.148m east-west by c.84m north-south. It tapers to the west, towards the summit of a low ridge. Within the eastern part of the enclosure is a smaller square enclosure at c.SH59547204., of unknown date. Some 280m to the south is a second enclosure in a lower-lying setting: Penrhyn Park Enclosure II (SH59667175) NPRN 403367. This is a D-shaped ditched enclosure, possibly defensive, measuring c.63m northwest/southeast by 56m northeast/southwest. Bisected by modern field boundary. Surrounding these two main enclosures are extensive areas of pitting, linear features and smaller possible enclosures.

The enclosures and associated markings were thought to, “most likely to belong to the prehistoric period” (Toby Driver, *Archaeology in Wales*. Volume 45, 2005: 148)

4.3 Archaeological and Historical Background

The archaeological results presented here are based on the findings of the 1966-67 excavation programme at the location of the proposed development (Lynch, F. & Musson, C.R. (eds). 2001) and of the Parc Bryn Cegin excavations to the southeast, undertaken by GAT between 2005 and 2006 (Kenney, J. 2007. GAT Report 666). The results of the Parc Bryn Cegin excavation suggest the extent to which prehistoric activity within this area dominates the landscape and the results are discussed in tandem with those from the 1966-67 excavations.

For the location of the features discussed below see Figure 2.

4.3.1 Prehistory

Mesolithic

Mesolithic groups do seem to have been present in the area but the results of the Llandygai Industrial Estate and Bryn Cegin excavations demonstrate that their occupation sites were elsewhere, or do not survive in the archaeological record (Davidson and Kenney 2007: 9).

Mesolithic activity within the development area was limited to the site of Henge B, outside of the proposed development area, where the 1966-67 excavations produced several Mesolithic style flints and a microlith (Lynch 2001, 24).

At Bryn Cegin to the east, traces of Mesolithic activity on the site were very slight but a scatter of finds hinted at a low-level presence (*ibid.*). Parts of three Late Mesolithic microliths were found in Pit Group VI towards the western end of the site. There was one complete narrow-blade scalene triangle (SF 979.2) from pit 6034 and two probable mid-section fragments of narrow-blade microliths (SF 1362) from pit 6043 (Fig 4). The scalene triangle is made on a narrow flake retaining its bulb and retouched on the end and one side. Despite wet sieving the pit fills no microburins were found to indicate

specialised microlithic manufacture on site, and the finds were residual in the contexts, which also contained Late Neolithic pottery.

Another microlith (SF 1228) was recovered from a posthole 9437 south of structure G, a late Iron Age feature in the middle of the roundhouse settlement. The posthole was part of a group that seemed to be related to the Iron Age features or associated with a spread of burnt stone sealing structure G. This area is discussed in detail below. The microlith is a small scalene triangle retouched on three sides, possibly originally retaining a bulb and made on light brown, pebble flint. A serrated blade (SF 712), on yellow-brown flint, was found in a disturbed area (3979) on the edge of a post-medieval ditch where it cut through roundhouse D and stones were pressed into the boulder clay. Although not particularly diagnostic this could also be Mesolithic. A blade core of Mesolithic type (SF 701) was found just south of roundhouse E in trench 4, and another Mesolithic-style core (SF 693) was found unstratified in trench 8 (Fig 4).

These few scattered artefacts, mainly found as residual pieces in later contexts can do no more than suggest a relatively low-level presence in the area in the Late Mesolithic. Slight features associated with a Mesolithic settlement might have been destroyed by ploughing but any concentration of flints in the ploughsoil would probably have been spotted during the monitoring of the ploughsoil stripping and the wet sieving program would have detected microliths surviving in later features. The scarcity of Mesolithic evidence is therefore best interpreted as the result of a genuine scarcity of Mesolithic activity on the site.

Neolithic

Within the development area, the principal discoveries included a rectangular timber post-built house dated to the Early Neolithic (3900 cal BC) and a complex of Late Neolithic ritual monuments. These comprised a henge (Site A) with a single entrance, constructed *c.*3100 cal BC, within which was found Peterborough Ware and an axe of Langdale stone. A contemporary cremation circle lay at the entrance. A second henge (B) with a double entrance (*terminus ante quem* 2700 BC) enclosed two cremation burials and several other pits containing Late Neolithic and Beaker pottery (2300-1800 cal BC). A short narrow cursus (C) dated to *c.*2600 cal BC lay between the two henges but there were no finds to confirm the date or explain its role. Beyond the west end of the cursus lay a small hengiform monument (E) which produced no finds. Further to the west was a large ditched enclosure (D). In the early medieval period (5th to 7th centuries AD) a cemetery of more than fifty seven graves, with an enclosed grave at the southeast end, was established over the area of the cursus.

A building similar to the rectangular post-built house was discovered at the Bryn Cegin site.

Bronze Age

Within the development area, a small barrow (F) of Early Bronze Age date was identified at the southern end of the excavation area. The barrow was enlarged twice, the final stage covering a cremation and a Food Vessel. In the Late Bronze Age (*c.*1100 cal BC) an informal hearth was built in the ditch of Henge B and at this or a later period at Henge A, a more significant settlement was established with at least two round wooden houses and several four-post structures.

Iron Age

Henge A was reused for a later prehistoric settlement with a central roundhouse, a second house and numerous pits and postholes, some defining four-poster structures. There was no dating material from these features but they were suggested as being possibly Early Iron Age.

Two enclosures were identified by aerial reconnaissance several hundred metres to the north of the development area: Penrhyn Park Enclosure I (SH59627204) NPRN 403359 and Penrhyn Park Enclosure II (SH59667175) NPRN 403367, both of which were thought to be of prehistoric origin (*Archaeology in Wales*. Volume 45, 2005: 148)

4.3.2 Roman

At the end of the 1st century AD there was some short-lived activity outside the entrance of Henge A with evidence for Romano-British activity in the partially filled henge ditch, which included hearths, furnaces and postholes that seem to result from a short-lived settlement.

At the Bryn Cegin site within the drain of one of the roundhouses was found a small bronze Roman seal box complete with traces of the wax seal inside. Seal boxes were used to secure and authenticate important documents. It is unlikely that official documents were delivered to this small native settlement, so it is likely that this object was acquired from elsewhere, perhaps from a near-by military presence.

Sherds of glass and a few glass beads were also found. The beads may be connected with an isolated find made over 300m north-east of the settlement, where 235 blue glass beads and 19 red reeded beads were found in a small hollow with no other associated features. The beads are probably of Roman date and are rather rough and unfinished.

4.3.3. Early Medieval

An inhumation cemetery was created over the cursus between the sixth to eight centuries AD, which had at least 62 graves and a small rectangular mortuary enclosure with a central grave.

4.3.4 Post-Medieval

Post-medieval trackways and field boundaries ran across the site. The excavation site had been part of the Penrhyn Home Farm since at least 1768. Between 1768 and 1803 it was divided into four fields but became a single field in 1847 when the railway cut across the southern boundary and the straight line separating the field and the cricket field was created. The northwest boundary of the excavation field became the line of the early nineteenth century quarry tramway used to transport material to Penrhyn Port. The field was compulsorily purchased by Caernarvonshire (sic) County Council in 1961 for industrial development. After the 1966/67 excavation programme, the factory units were let and built upon. The most recent occupant of the site was Wardle Storeys Ltd, which operated a car parts factory. The factory was closed in 2004 in order to transfer the work to its site in Earby, Lancashire.

4.4 Archaeological features lying within the Development Area

For the location of features see Figure 1.

Feature 1: Henge A (PRN 2314).

Category: A

Impact: Significant

Henge A (SH59557100) was a single entrance henge at the northern end of the 1966/67 excavation area. It was defined by a broad ditch with remnants of an internal bank. The external width of the henge as defined by the ditch was 90.0m; the internal width as defined by the bank was 50.0m. The henge and its associated features were identified on the ground through mechanical stripping of topsoil, which located almost the full circuit of the henge ditch, along with the size and position of the internal bank, as well as interior features. The only areas not stripped were two small segments at the south and northwestern ends. The soil strip reached an eventual depth of 0.65 to 0.70m below the original ground level. Several Neolithic period features were identified within the henge including a cremation pit, three/four “featureless” pits and a fire-pit, whilst a cremation circle was identified outside the entrance to Henge A. The henge ditch was fully excavated for a length of 15.0m in the northwest sector and partially over the adjacent 5.0m. The ditch averaged 11.0m in width and 3.0m in depth. The Henge site is now covered by the *Wardle Storeys* factory building and associated lawned/landscaped area (see Figure 1).

Recommendations for further assessment: Trial Trenching to ascertain the depth and survival of archaeological remains

Recommendations for mitigatory measures: Dependant on Results of further assessment

Feature 2: Iron Age/Romano-British Settlement (PRN2311 and 2312)

Category: B

Impact: Significant

A late prehistoric/Romano-British occupation area within the site of Henge A (SH59557100) was identified and investigated during the 1966/67 excavation (PRN 2311 & 2312). Only the central and

western parts were examined in detail, however. A large central roundhouse, A2, was marked by a ring of postholes, a narrow wall gully 15m in diameter and a surrounding drainage gully. Other gullies within the area of A2 suggest replacement and repair during the lifetime of the settlement. A second, less securely identified, roundhouse (A1) marked only by a ring of postholes marked only by a ring of postholes, a pair of possible entry posts and a fragmentary drainage gully, lies to the southwest of A2. There was also a scattering of possible post-pairs and four posted structures, two of the latter overlapping and therefore not contemporary with A2. The overlap between features and structures showed that this phase of occupation lasted some considerable time and saw significant changes of pattern (Lynch & Musson 2001). The bank and ditch of the Henge A, would have provided the later prehistoric settlers with a ready made enclosure and a degree of protection (*ibid.*). This area is now covered by the *Wardle Storeys* factory building and associated lawned/landscaped area (see Figure 1).

Recommendations for further assessment: Trial Trenching to ascertain the depth and survival of archaeological remains

Recommendations for mitigatory measures: Dependant on Results

Feature 3: The Cursus (PRN 2314)

Category: A

Impact: Significant

A cursus monument was identified and recorded during the 1966/67 excavation. The cursus was situated across the summit of the gravel ridge aligned east to west and comprised two parallel ditches and a U-shaped western end. The cursus had a projected total length of 170m and the U-shaped western end reached 91.4m in to the excavation area with the remainder continuing into the cricket field to the east of the industrial estate. The width between the parallel ditches that formed the cursus was estimated at 12.0m. During the 1966/67 excavation programme, about half of the cursus was exposed in three trenches, but only short lengths of the ditches were emptied, due to the discovery of an early medieval cemetery, which covered a large portion of the cursus. A total of five sections were recorded across the south ditch, with a width of between 2.5 to 3.0m and a depth between 0.65m and 1.00m. A section was also cut through the north ditch, which measured 2.5m wide and 0.5m deep. The composition of the ditch infill suggested that an internal bank was also present. The cursus ditches were interrupted by four narrow causeways, three at the southwest corner and one in the northern side. The causeways measured between 1.5m and 2.0m in width. In terms of dimensions, the cursus was one of the smallest recorded in Britain. The date of the cursus was suggested to be later than Henges A and B and was thought to belong to the mid third millenium (Lynch & Musson 2001).

The location of the Cursus is currently part of the *Wardle Storeys* factory site, which includes an ancillary building (now demolished to foundation level) and a lawned/landscaped area (see Figure 1).

Recommendations for further assessment: Trial Trenching to ascertain the depth and survival of archaeological remains

Recommendations for mitigatory measures: Dependant on Results

Feature 4: Hengiform Monument (PRN 222)

Category: A

Impact: Significant

This small monument was identified and completely excavated in 1966 and was situated west-southwest of the end of the cursus (Lynch & Musson 2001). It was roughly equidistant from the two main henges but lay south of the alignment between the cursus and Circle D. The two entrances were aligned northwest/southeast, in contrast to the two large henges (A and B) where, thought they are of different dates, both entrances faced almost due west. There is no dating evidence for the monument, but these two factors suggest that it is an addition to the prehistoric landscape, later than the cursus and Circle D and Henge B.

The monument consisted of two curved ditches forming a circle 8m in diameter. The south ditch, 1.5m across and 0.48m deep, was slightly larger than that to the north. There was little indication of the position of any bank in the truncated ditch sections, but due to the lack of internal space, this may have been on the outside. There were no significant features within the 5.0m wide interior.

The location of the hengiform monument is currently an access road belonging to the *Wardle Storeys* factory (Figure 1).

Recommendations for further assessment: None

Recommendations for mitigatory measures: None

Feature 5: Medieval Cemetery (PRN 2313)

Category: B

Impact: Significant

An extended inhumation cemetery was identified during the 1966/67 excavations, overlying the cursus, c.50.0m from the western terminal. Over sixty graves were recorded within the areas excavated, lying within the cursus and extending beyond the ditches to the north and south. A particularly significant feature of this group was a single grave lying within a rectangular mortuary enclosure on the south side. The graves were identified during surface cleaning of the cursus area and covered a total excavation area of c.380m². A characteristic dark fill identified the features and their interpretation as graves was dependant on their elongated shape (the dimensions were consistent with known extended inhumations), a generally west-east alignment and the evidence from excavation or partial excavation of eighteen examples. A small rectangular enclosure, 4.33m by 3.62m internally, was recorded at the southern periphery of the main concentration of graves. The enclosure was defined by a trench 0.6m wide and 0.3m deep. A grave, 2.20m long and 0.8m wide lay centrally within the enclosure. This mortuary enclosure may represent the interment of a particularly important or revered individual. The location of the cemetery is currently part of the *Wardle Storeys* factory site, which includes an ancillary building (now demolished to foundation level) and a lawned/landscaped area (see Figure 1).

Recommendations for further assessment: Trial Trenching to ascertain the depth and survival of archaeological remains

Recommendations for mitigatory measures: Dependant on Results

Feature 6: Wardle Storeys Factory

Category: D

Impact: Significant

The site occupies a large area of land on the western side of the main entrance into Llandygai Industrial Estate and consists of a substantial industrial unit (formerly Wardle Storeys), flanked to the north by a range of smaller associated units and a boiler house to the south. The land to the north west of the main building is currently open and was formerly used to store large wind turbine components (see Plate 1). The main larger building measures 35 metres by 35 metres, whilst the smaller range has an approximate length of 30 metres with a five metre width. A detached ancillary building, located between the main building and estate road, was recently demolished by deemed consent. This building is believed to have accommodated ancillary offices and a canteen, and measured 35 metres by eight metres. In summary therefore, the largest building has a total floor area of 1,225 square metres, the elongated range to the north, 450 square metres, and the demolished buildings, 280 square metres; an overall sum of 1,955 square metres.

Recommendations for further assessment: Basic Recording

Recommendations for mitigatory measures: None

5 IMPACT AND RECOMMENDATIONS

5.1 Impact

5.1.1 Designated Sites and Areas within the area:

Scheduled Ancient Monuments (SAM)

- CN153: Henge Monument and Cursus (SH595709). This designation originally incorporated the archaeological features within the development area. Due to the construction of the industrial estate, the SAM was reassigned to cover the remains of the cursus at the location of the cricket ground, as well as the features identified at this location through aerial photography (reproduced in Figure 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

Landscape Register of Outstanding Historic Interest in Wales

The development area is located within the Dyffryn Ogwen section of the Landscape Register of Outstanding Historic Interest in Wales (ICOMOS, CADW and CCW, 1998: Dyffryn Ogwen, 28).

5.1.2 The Development Proposal:

- The outline application as submitted, is accompanied by a proposed site plan (as detailed in Drawing No. C06A/0648/16/AM) demonstrating the replacement of the present buildings with the following:
 - (i) Four detached business/industrial/warehousing units totalling approximately 1,032 square metres of ground floor area (Units 1, 2 and 4).
 - (ii) A ten pin bowling building measuring approximately 625m².
 - (iii) A cinema measuring in the range of 150m².
 - (iv) A Bingo hall/fitness studio measuring approximately 625m².
- The two detached A3 uses are considerably smaller in floor area, whilst the optional hotel has a ground floor area of approximately 300m². As part of its submission, the applicants have indicated the approximate total floor areas for each building. In real total floor area terms, the applicants submitted the following information. (i) Leisure units 7, 897m². (ii) Business/Industrial/Warehouse units – 7,813m². (iii) Restaurant unit 930m².
- In addition to the proposed buildings, it is proposed to provide a total of 464 on site parking space and 17 spaces for lorries to park.

5.1.3 Impact

- The proposed development plan (Drawing No. C06A/0648/16/AM) indicates that the development at Unit 1 incorporates the location of Henge A, the cursus (Site C) and the Hengiform Monument (Site E), as well as the later activity at Henge A and the cursus. It does not affect Henge B or Sites D and F. A large portion of Henge A was stripped and recorded in 1966/67, and a large excavation slot was cut through the western side of the henge ditch. The later activity within the henge was cleaned and planned and the central and western area within the henge excavated. At least half of the cursus was excavated, including the western and eastern ends. The excavation of the centre of the cursus identified the early Medieval graves, which were cleaned and planned and eighteen examples excavated. The hengiform monument was completely excavated.
- The location of the northern end of Henge A is currently a landscaped area, incorporating two trapezoidal-shaped lawned areas surrounded by paths. The proposal aims to replace this with a sixty-two space car park. The southern end of the henge will be the location of the proposed 625m² bingo hall/fitness studio.
- The location of the cursus/cemetery currently includes an ancillary block associated with the Wardle Storeys factory and a rectangular shaped lawned area. The proposal aims to replace this with a 296 space parking area and two A3 detached buildings.
- The proposed development will replace the existing Wardle Storeys factory, including the ancillary buildings and will also utilise the storage compound to the northwest.

5.1.3.1 Geotechnical Data

A geotechnical survey of the development area was conducted in June 2007 (see Figure 4 for the location of the boreholes and Appendix II for a detailed description of the results).

The geotechnical data helps identify the extent which the construction of the industrial estate affected the original landscape, both in terms of the construction of made ground (foundation layers, road surfacing et al.) and the cutting into the topsoil during foundation work.

The made ground across the site averaged between 0.15m and 0.25m in depth. At the location of Henge A, the made ground included 0.15m of turf/topsoil covering a limestone roadstone. In the case of probehole 04, located at the northern end of Henge A, the deposits below the made ground incorporated 0.20m of stiff brown clay with frequent rounded pebbles, followed by deposits of sand and gravel, varying in density and depth (see Appendix II for further information).

Proboholes 09 and 10 incorporated the location of the cursus. This area is currently a landscaped/lawned area (see Plate 7). The probehole data identified a 0.25m thick deposit of grass covering clay-rich topsoil. This was followed by deposits of clay-sand-gravel of various depths and density (see Appendix II).

There were no boreholes/proboholes close to the location of the Hengiform Monument.

The western end of the proposed development, currently extant as a large rectangular storage compound, was investigated with Proboholes 01, 02 and 14-17. The geotechnical data identified a 0.20m to 0.40m thick deposit of made ground, followed by varying depths and densities of sand and gravel.

This information reveals that in the majority of most cases, the made ground was built onto various glacial and fluvio-glacial deposits. In the case of the cursus, the ground appeared to have been little disturbed, with a deposit of topsoil covering a sequence of clay-sand-gravel deposits. In the case of Henge A, the probeholes suggested that the made ground was shallow and was followed by a shallow clay-rich deposit. It was not possible to tell whether this was a relict topsoil or a clay deposit. Below this were possible glacial deposits. In the case of the storage area at the western end of the site, the made ground covered a sequence of glacial deposits and there did not appear to be any relict topsoils/ploughsoils.

No information was available for the height of the areas excavated during 1966/67 in terms of their relationship to a known Ordnance Datum. The importance of this information would be to compare the current ground levels and the original ground levels in 1966 to suggest how much the ground levels were altered and the extent of disturbance of the archaeological features. A general datum for the area in 1966 was suggested at 40m OD and that the area was a level plateau (Lynch, F. & Musson, C.R. (eds). 2001). The survey of the site conducted in tandem with the boreholes/proboholes gave spot heights of the area tied into the Ordnance Datum. This information revealed that the current ground level averaged around 40m OD also (see Figure 4), suggesting that the landscaping/reduction of the area during the construction of the industrial estate was not that extensive. This would suggest that those areas not beneath the foundation of the factory buildings were not affected by extensive landscaping and that archaeological features will survive to some extent. In contrast, the storage area to the west of the factory is on average 2.0m lower, and it might be that here the ground was deliberately lowered and extensively landscaped (see Plate 11 for the change in ground level between the two areas and Figure 4 for the spot heights across the site).

5.2 Recommendations

- An archaeological evaluation of the proposed development area would be recommended at this stage to assess the extent of archaeological survival beneath the current development. This would determine the affect any proposed development would have on the archaeological record. The northern half of Henge A and the centre of the cursus are currently beneath lawned/landscaped areas rather than structures, so the potential for survival may be stronger here than at the location of the factory building and its ancillary structures, where the foundations may have removed or truncated the archaeology. If possible, however, trial trenching within the factory should be undertaken to provide an indication of archaeological survival.
- Evidence from the geotechnical data was not conclusive, but, with the exception of the west side of the site, it would appear that the 1966/7 excavation surface still exists beneath the present development.

- It is worth noting that apart from the hengiform monument at the southern end of the development area and the cremation circle outside of Henge A, the remaining features within the development area were not fully excavated. This includes Henge A, the Cursus and the Medieval cemetery. Figure 46 (Lynch and Musson 2001), details the intensity of excavation within the interior of Henge A and states that the most intensive work was conducted in the centre and southwestern portion of the henge interior, whilst northern and eastern sides were either “cleaned by mechanical scraper/limited hand-excavation”, or were, “scraped mechanically...but not closely examined” (Lynch & Musson 2001: 94). In the latter case, the southeastern end was used as machine access and in the process churned by the tracks. However, it is worth noting that the features were extant to a depth of 0.70m below the turf line (*ibid.*: 37) and could potentially survive to some extent.
- The potential still remains for other features not identified during the 1966/67 excavation programme. The features excavated at that time were targeted as a result of aerial photography and an examination of the wider area was not conducted (see fig 6). The results of the evaluation and excavation programme conducted at Parc Bryn Cegin by the Gwynedd Archaeological Trust in 2005/6 (GAT Reports 595 and 666), to the southeast of the development area, the geophysical survey of the cricket club grounds to the immediate east of the development area, and the aerial reconnaissance of Penrhyn Park, all point to the wealth of prehistoric activity in the local vicinity and highlight the potential for further discoveries.
- An evaluation of the areas surrounding Henge A, the cursus/medieval cemetery and the hengiform monument would be recommended to assess the survival of archaeological deposits.
- The area to the northwest of the current factory, which had previously been used as a storage area, appears to have been created by cutting into and levelling the existing ground level and stands at least two metres below the ground level of the factory. Whilst this suggests extensive landscaping in this area, the potential for archaeological activity may remain here and a sample examination of the area would be recommended by trial trenching.
- A minimum of four trenches would be recommended at this stage (Figure 5):
 1. A trench within the location of Henge A, extending from the centre of the Henge to the eastern edge (Length: 40.0m);
 2. A trench within the location of the Cursus (Length: 20.0m);
 3. A trench within the area of the factory (the lawned/landscaped area at the rear of the factory is the most accessible; Length: 20.0m);
 4. A trench within the compound at the western end of the site (Length: 20.0m).
- A basic record of the *Wardle Storeys* factory would also be recommended, requiring a photographic record and full description prior to commencement of works.

6 SOURCES

Published sources

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Lynch, F. & Musson, C.R. (eds). 2001. A Prehistoric and early Mediaeval Complex at Llandegai, near Bangor, North Wales: Excavations directed by C.H. Houlder 1966-67. *Archaeologia Cambrensis* volume 150 (2001): 17-142.

Smith, G. 2005. Parc Bryn Cegin, Bangor: revised archaeological assessment. Gwynedd Archaeological Trust Report 565. Unpublished report held by the Historic Environment Record for north-west Wales, Gwynedd Archaeological Trust.

APPENDIX I

Archaeological Sites within a 2.5km radius of the development area: (Source HER and CARN Database www.rcahmw.org.uk/data/carn.shtml)

Prehistoric

4 matches found in the CARN database.

SETTLEMENT, LLANDEGAI

Reference: 2311 National grid reference: SH59307110 Period: Roman Distance: 0.1
Broadclass:Domestic Type:SETTLEMENT
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

SETTLEMENT, LLANDEGAI

Reference: 2312 National grid reference: SH59307110 Period: Roman Distance: 0.1
Broadclass:Domestic Type:SETTLEMENT
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

LLANDEGAI, BANGOR

Reference: 78.20H/24.1 National grid reference: SH5971 Period: Roman Distance: 0.4
Broadclass:Object Type:MULTIPLE FINDSPOT (39 OBJECTS)
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:National Museums and Galleries of Wales

ROMAN FORT (NATURAL), HOME FARM, LLANDEGAI

Reference: 2370 National grid reference: SH59757180 Period: Roman Distance: 0.7
Broadclass:Unassigned Type:NATURAL FEATURE
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

Roman-British

4 matches found in the CARN database.

SETTLEMENT, LLANDEGAI

Reference: 2311 National grid reference: SH59307110 Period: Roman Distance: 0.1
Broadclass:Domestic Type:SETTLEMENT
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

SETTLEMENT, LLANDEGAI

Reference: 2312 National grid reference: SH59307110 Period: Roman Distance: 0.1
Broadclass:Domestic Type:SETTLEMENT
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

LLANDEGAI, BANGOR

Reference: 78.20H/24.1 National grid reference: SH5971 Period: Roman Distance: 0.4
Broadclass:Object Type:MULTIPLE FINDSPOT (39 OBJECTS)
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:National Museums and Galleries of Wales

ROMAN FORT (NATURAL), HOME FARM, LLANDEGAI

Reference: 2370 National grid reference: SH59757180 Period: Roman Distance: 0.7
Broadclass:Unassigned Type:NATURAL FEATURE

Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

Medieval

20 matches found in the CARN database.

SETTLEMENT, LLANDEGAI

Reference: 2313 National grid reference: SH59307110 Period: Early Medieval Distance: 0.1
Broadclass:Domestic Type:SETTLEMENT
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

TUNNEL AT LLANDEGAI, PENRHYN RAILWAY

Reference: 309272 National grid reference: SH59387145 Period: Post-Medieval
Distance: 0.3
Broadclass:Transport Type:RAILWAY TUNNEL
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:RCAHMW Coflein Database

PENRHYN CASTLE GRAND LODGE

Reference: 11394 National grid reference: SH59787098 Period: Post-Medieval
Distance: 0.4
Broadclass:Domestic Type:BUILDING
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

PENRHYN CASTLE GRAND LODGE

Reference: 16688 National grid reference: SH59787098 Period: Post-Medieval?
Distance: 0.4
Broadclass:Domestic Type:LODGE
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:RCAHMW Coflein Database

PENRHYN CASTLE GARDENS

Reference: 4469 National grid reference: SH60007100 Period: Post-Medieval Distance: 0.6
Broadclass:Recreational Type:GARDEN
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

FELIN ESGOB CORN MILL, BANGOR

Reference: 305476 National grid reference: SH58817122 Period: Post-Medieval
Distance: 0.6
Broadclass:Agriculture and Subsistence Type:CORN MILL
Pre 74 County:Caernarfonshire County:Gwynedd Community:Bangor
Record Originator:RCAHMW Coflein Database

ST TEGAI'S CHURCH

Reference: 43811 National grid reference: SH60067099 Period: Medieval Distance: 0.7
Broadclass:Religious, Ritual and Funerary Type:CHURCH
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandegai
Record Originator:RCAHMW Coflein Database

HOLY CROSS CHURCH

Reference: 219 National grid reference: SH589716 Period: Medieval Distance: 0.7
Broadclass:Religious, Ritual and Funerary Type:CHURCH
Pre 74 County:Caernarfonshire County:Gwynedd Community:Bangor
Record Originator:RCAHMW Coflein Database

BANGOR CEMETERY GARDEN

Reference: 86278 National grid reference: SH59157180 Period: Post-Medieval
Distance: 0.7
Broadclass:Gardens, Parks and Urban Spaces Type:CEMETERY GARDEN
Pre 74 County:Caernarfonshire County:Gwynedd Community:Bangor
Record Originator:RCAHMW Coflein Database

LLANDEGAI CHURCH
Reference: 2319 National grid reference: SH60077098 Period: Medieval Distance: 0.7
Broadclass:Religious, Ritual and Funerary Type:CHURCH
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

LLANDEGAI PARISH CHURCH
Reference: 6958 National grid reference: SH60077098 Period: Medieval;Post-Medieval
Distance: 0.7
Broadclass:Religious, Ritual and Funerary Type:CHURCH
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:Gwynedd Archaeological Trust

PLATFORM HUTS, PENRHYN PARK
Reference: 6626 National grid reference: SH60247115 Period: Medieval Distance: 0.8
Broadclass:Domestic Type:PLATFORM HUT
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llanllechid
Record Originator:Gwynedd Archaeological Trust

TRE'R FELIN COTTAGES NOS 1-8, LLANDYGAI; TREFELIN; TRE-FELIN
Reference: 301376 National grid reference: SH601707 Period: Post-Medieval Distance: 0.8
Broadclass:Domestic Type:TERRACE
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:RCAHMW Coflein Database

MAESGEIRCHEN CHAPEL (WELSH CALVINISTIC METHODIST), MAESGEIRCHEN, BANGOR
Reference: 6709 National grid reference: SH58967182 Period: Post-Medieval Distance: 0.8
Broadclass:Religious, Ritual and Funerary Type:CHAPEL
Pre 74 County:Caernarfonshire County:Gwynedd Community:Bangor
Record Originator:RCAHMW Coflein Database

PENLAN FLINT MILL
Reference: 40754 National grid reference: SH600707 Period: Post-Medieval Distance: 0.8
Broadclass:Industrial Type:FLINT MILL
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llandygai
Record Originator:RCAHMW Coflein Database

PENRHYN WAGGONWAY TUNNEL
Reference: 34668 National grid reference: SH59227205 Period: Post-Medieval
Distance: 0.9
Broadclass:Transport Type:TUNNEL
Pre 74 County:Caernarfonshire County:Gwynedd Community:Bangor
Record Originator:RCAHMW Coflein Database

PORT PENRHYN HARBOUR
Reference: 96229 National grid reference: SH5972 Period: Post-Medieval Distance: 0.9
Broadclass:Maritime Type:HARBOUR
Pre 74 County:Caernarfonshire County:Gwynedd Community:Bangor
Record Originator:RCAHMW Coflein Database

PENRHYN CASTLE PARK & GARDENS, BANGOR
Reference: 4421 National grid reference: SH60257100 Period: Post-Medieval Distance: 0.9
Broadclass:Gardens, Parks and Urban Spaces Type:PARK

Pre 74 County:Caernarfonshire County:Gwynedd Community:Llanllechid
Record Originator:Gwynedd Archaeological Trust

RIDGE AND FURROW, PENRHYN PARK

Reference: 6627 National grid reference: SH60257100 Period: Medieval Distance: 0.9
Broadclass:Agriculture and Subsistence Type:RIDGE AND FURROW
Pre 74 County:Caernarfonshire County:Gwynedd Community:Llanllechid
Record Originator:Gwynedd Archaeological Trust

BETHESDA JUNCTION

Reference: 41467 National grid reference: SH58497119 Period: Post-Medieval
Distance: 0.9
Broadclass:Transport Type:RAILWAY STATION
Pre 74 County:Caernarfonshire County:Gwynedd Community:Bangor
Record Originator:RCAHMW Coflein Database

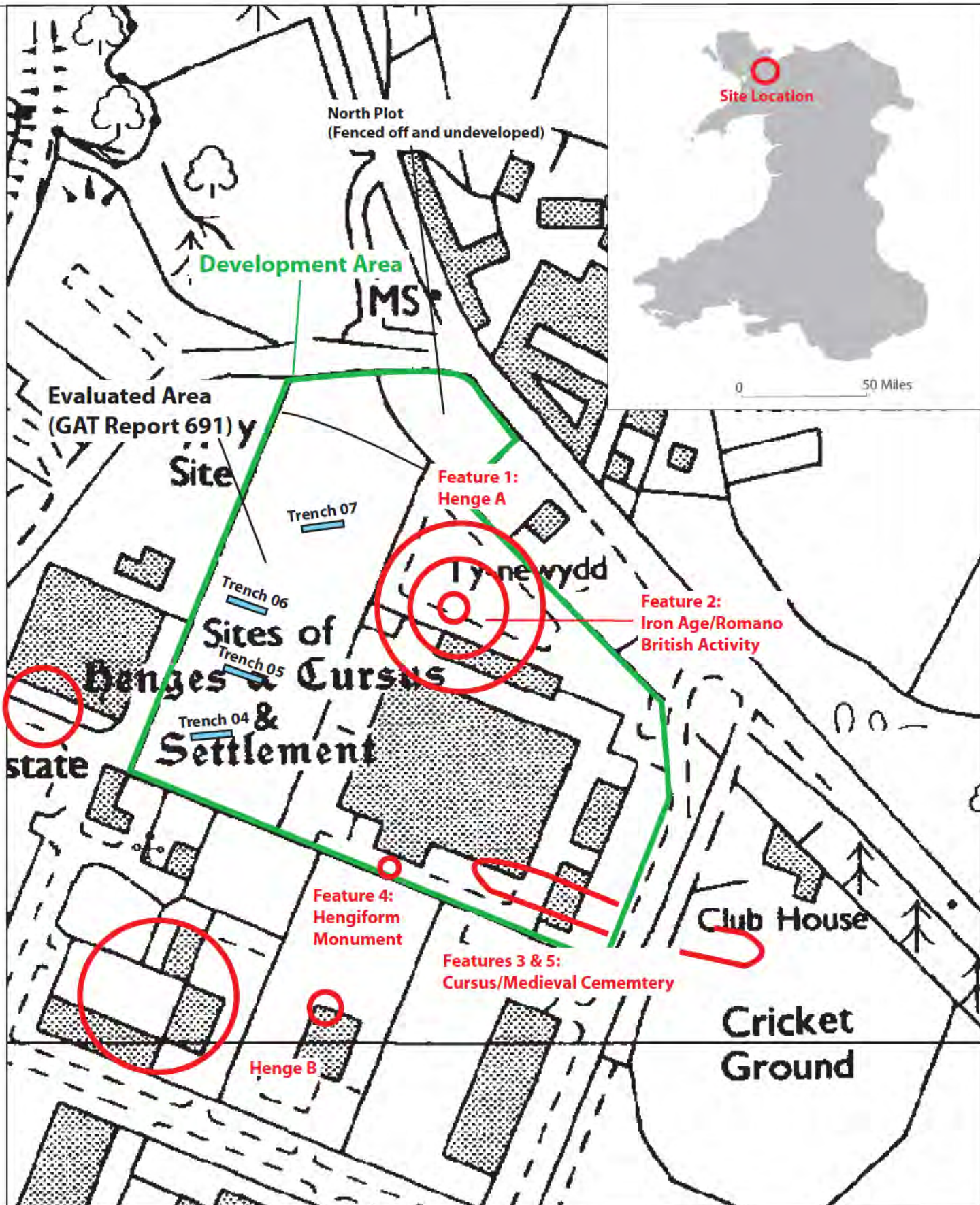
Appendix II

Borehole/Probehole Data

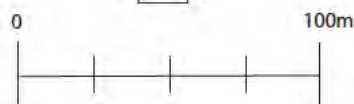
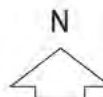
Reference Number	Made Ground (Current Ground Level)	Deposits below Made Ground (BGL = Depth Below Ground Level)	Total Depth
Borehole 01	0.10m – Ash, soil, limestone fill;	1.40m sand and gravel	1.50m
Borehole 02	0.10m – Tarmac; 0.20m – Compact Limestone;	@0.30m BGL: 0.20m - dense clayey gravel; @0.50m BGL: 0.70m – very dense sand gravel	1.20m
Borehole 03	0.20m – Sandy topsoil;	@0.20m BGL: 2.80m – very dense sand gravel	3.00m
Borehole 04	0.10m – Tarmac; 0.10m – Compact limestone fill	@0.20m BGL: 0.80m – very dense sand and gravel	1.00m
Probehole 01	0.10m – Limestone and large gravel yard surface;	@0.10m BGL: 1.50m – Brown sand gravel; @1.60m BGL: 1.50m – Brown sand; @3.10m BGL: 0.70m – Brown silt sand; @3.80m BGL: 1.00m Brown sand gravel	4.00m
Probehole 02	0.20m – Limestone, roadstone an gravel yard surface;	@0.20m BGL: 3.80m brown sand and gravel	4.00m
Probehole 03	0.15m – Grass onto clayey topsoil;	@0.15m BGL: 0.30m – stiff brown clay; @0.45m BGL: 1.55m – brown sand and gravel	2.00m
Probehole 04	0.15m – turf/topsoil onto limestone roadstone	@0.15m BGL: 0.20m - stiff brown clay with frequent rounded pebbles; @0.35m BGL: 0.95m - dense brown sand gravel; @1.30m BGL: 0.50m – brown sand; @1.80m BGL:	2.00m

		0.20m – brown sand gravel	
Probehole 05	0.10m – limestone roadstone (car park surface)	@0.10m BGL: 0.30m - stiff brown clay; @0.40m BGL: 0.85m - dense brown sand gravel;	1.25m
Probehole 06	0.15m – limestone roadstone	@0.15m BGL: 0.10m - Stiff brown clay; @0.25m BGL: 1.20m – dense brown sand and gravel;	1.45m
Probehole 07	0.10m – tarmac; 0.20m limestone roadstone;	@0.30m BGL: 0.30m brown sand and gravel; @0.60m BGL: 0.15m – stiff light brown clay; @0.75m BGL: 1.75m – brown sand and gravel; @2.50m BGL: 1.40m – brown sand; @3.90m BGL: 0.10m – brown sand gravel	4.00m
Probehole 08	0.30m – grass onto clay-rich topsoil.	@0.30m BGL: 0.15m – firm brown sand clay; @0.45m BGL: 0.65m – brown sand gravel	1.10m
Probehole 09	0.25m – grass onto clay-rich topsoil.	@0.25m BGL: 0.20m- dense brown clay sand gravel; @0.45m BGL: 0.80m – dense brown sand and gravel.	1.25m
Probehole 10	0.30m – grass onto very clay-rich topsoil	@0.30m BGL: 0.15m - firm brown clay; @0.45m BGL: 2.55m – dense brown sand gravel.	3.00m
Probehole 11	0.30m – grass onto clay-rich topsoil; 0.05m – timber; 0.20m – poss. made ground comprising stones and rounded pebbles	@0.55m BGL: 0.45m – stiff brown clay with frequent stones; @1.00m BGL: 0.50m – dense brown sand gravel	1.50m
Probehole	0.20m – grass onto clay topsoil;	@0.35m BGL:	1.50m

12	0.15m – clay gravel;	0.10m – stiff brown clay; @0.45m BGL: 1.05m - brown sand and gravel	
Probehole 13	0.20m – grass onto topsoil	@0.20m BGL: 0.15m – stiff brown clay; @0.35m BGL: 1.65m – brown sand and gravel	2.00m
Probehole 14	0.20m – very compact stoney surface	@0.20m BGL: 0.70m – very dense coarse grey sand gravel; @0.90m BGL: 03.30m - very dense and stiff sand clay	1.20m
Probehole 15	0.40m – compact stone surface	@0.40m BGL: 0.15m - gravel and cobbles; @0.55m BGL: 0.25m – fine sand; @0.80m BGL: 2.20m – sand gravel	3.00m
Probehole 16	0.20m – compact stone gravel	@ 0.20m BGL: 0.90m sand gravel; @ 1.10m BGL: 1.40m fine grey sand; @2.50m BGL: 1.50m very fine grey sand	4.00m
Probehole 17	0.25m – compact stone gravel	@0.25m BGL: 0.45m – dense gravel and cobbles; @0.70m BGL: 0.30m – sand gravel; @ 1.00m BGL: 1.00m – coarse sand.	2.00m



Note: Proposed Development is Highlighted in **GREEN**
 (Details Based on Supplied Drawing C06A/0648/16/AM)
 Archaeological Features are Highlighted in **RED**



YNDORDDIGAEI
 ARCHAEOLÓGOL
 GWYBODAETH
 GWYBODAETH
 GWYBODAETH



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**G1948 Unit 1 Llandygai
 Industrial Estate**

Figure 1. Site Location
 Scale: 1:2000@A4



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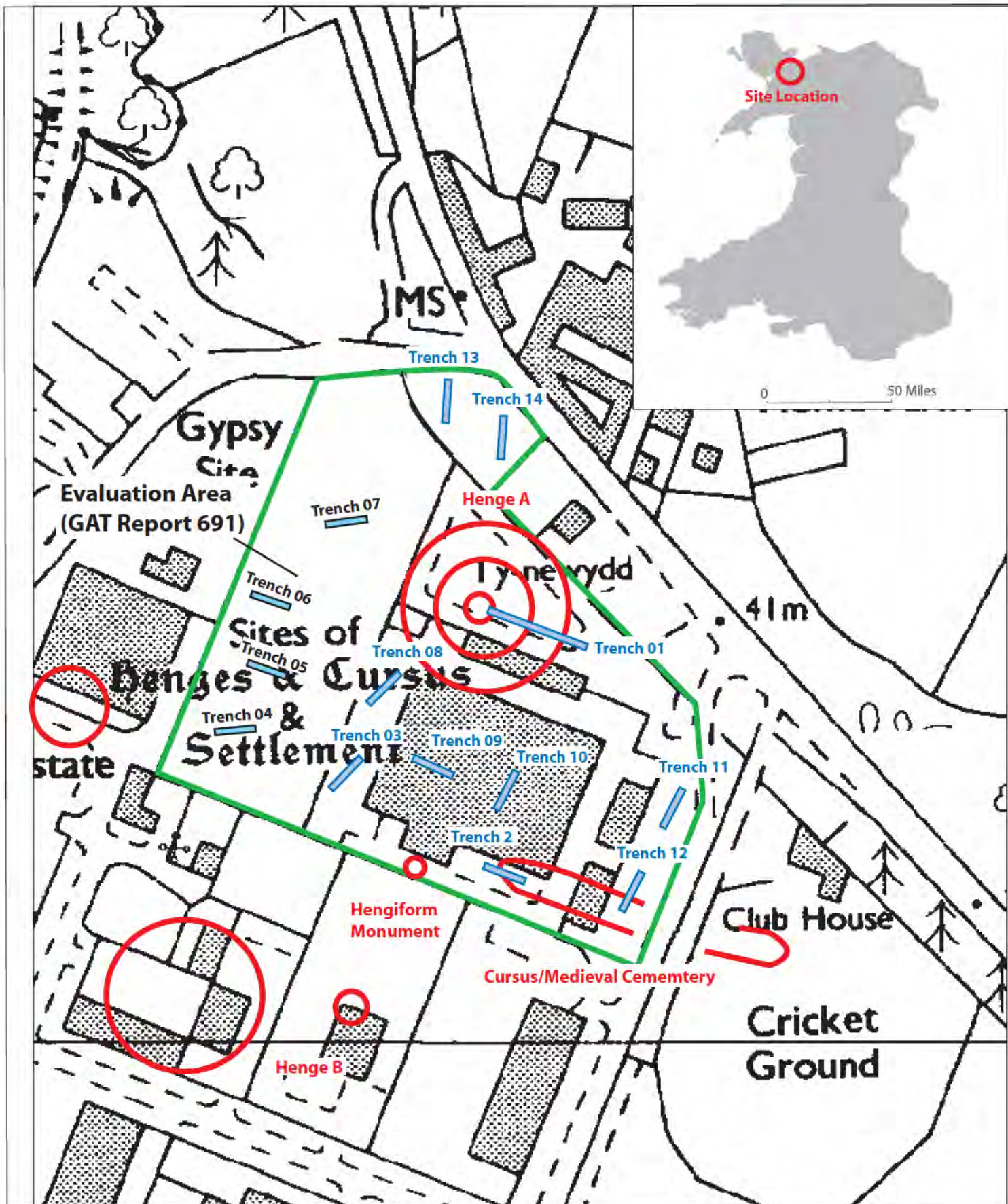


GWYNEDD
ARCHAEOLOGICAL
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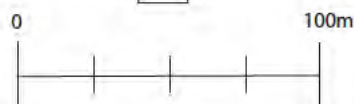
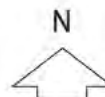
G1948 Llandygai Industrial Estate

Figure 2. Revised Development Plan
(Based on Drawing W3066-001 C)
Scale: For illustrative Purposes Only



Note: Proposed Development is Highlighted in **GREEN**
 (Details Based on Supplied Drawing C06A/0648/16/AM)
 Archaeological Features are Highlighted in **RED**

- Proposed Trench Locations
- Previously Evaluated Trenches



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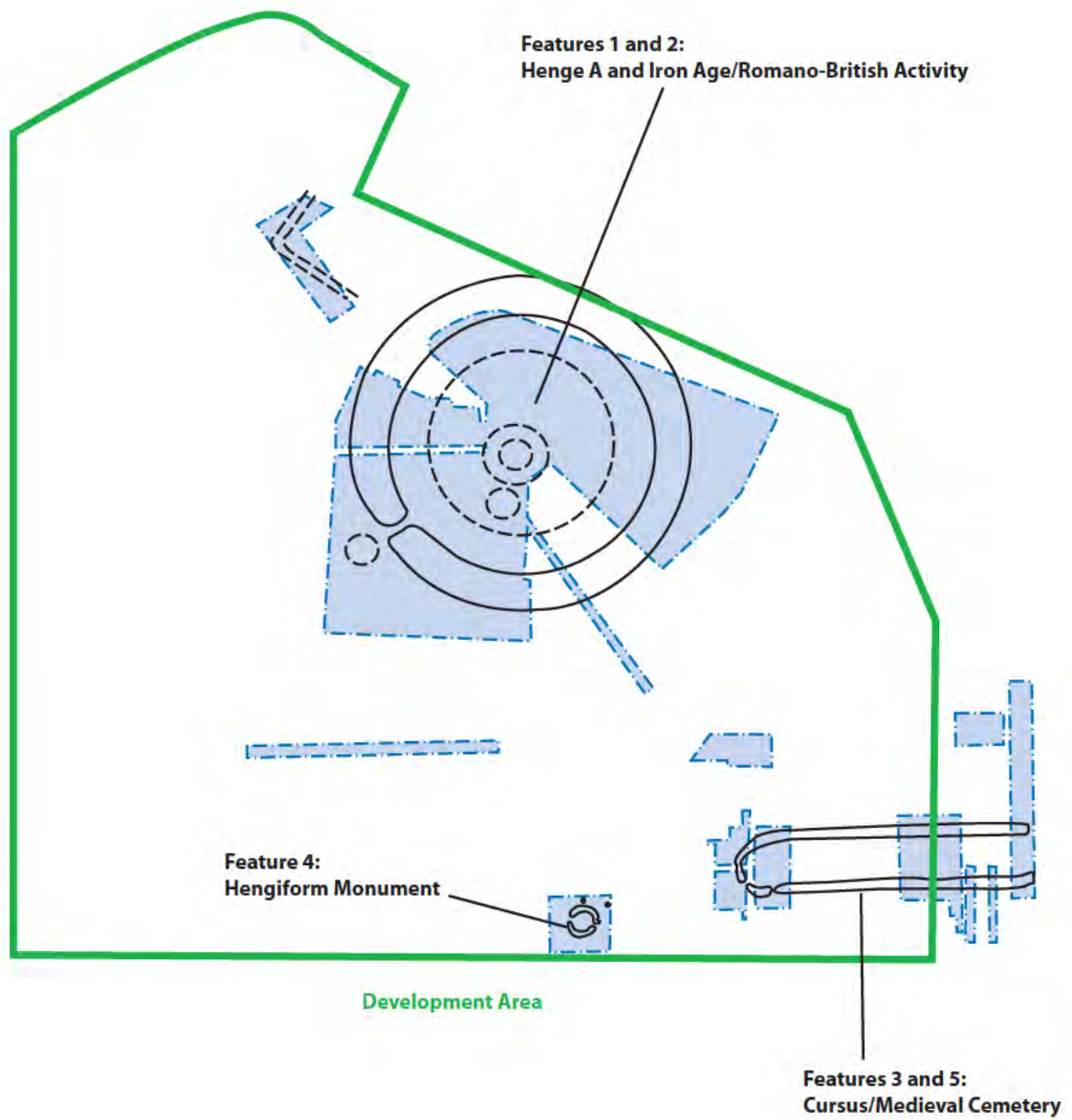



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Figure 5. Location of Proposed Trenches
 Scale: 1:2000@A4



 Areas Stripped and/or Excavated: 1966-67



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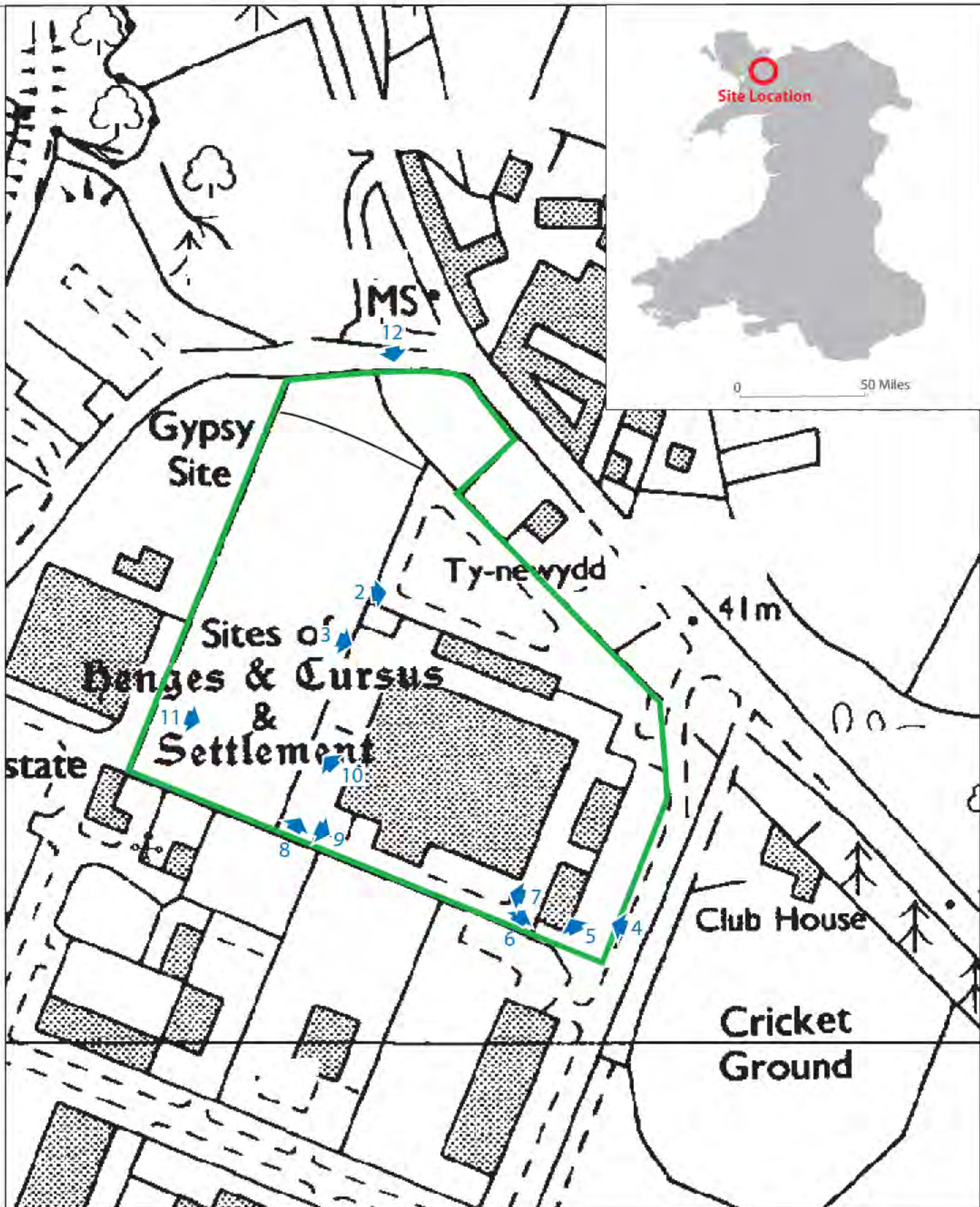


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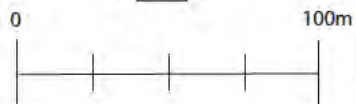
**Figure 6. Excavated Areas
Scale: As Scale Bar**



Note: Proposed Development is Highlighted in **GREEN**
(Details Based on Supplied Drawing C06A/0648/16/AM)

➡ Represents direction of photograph with relevant Plate Number

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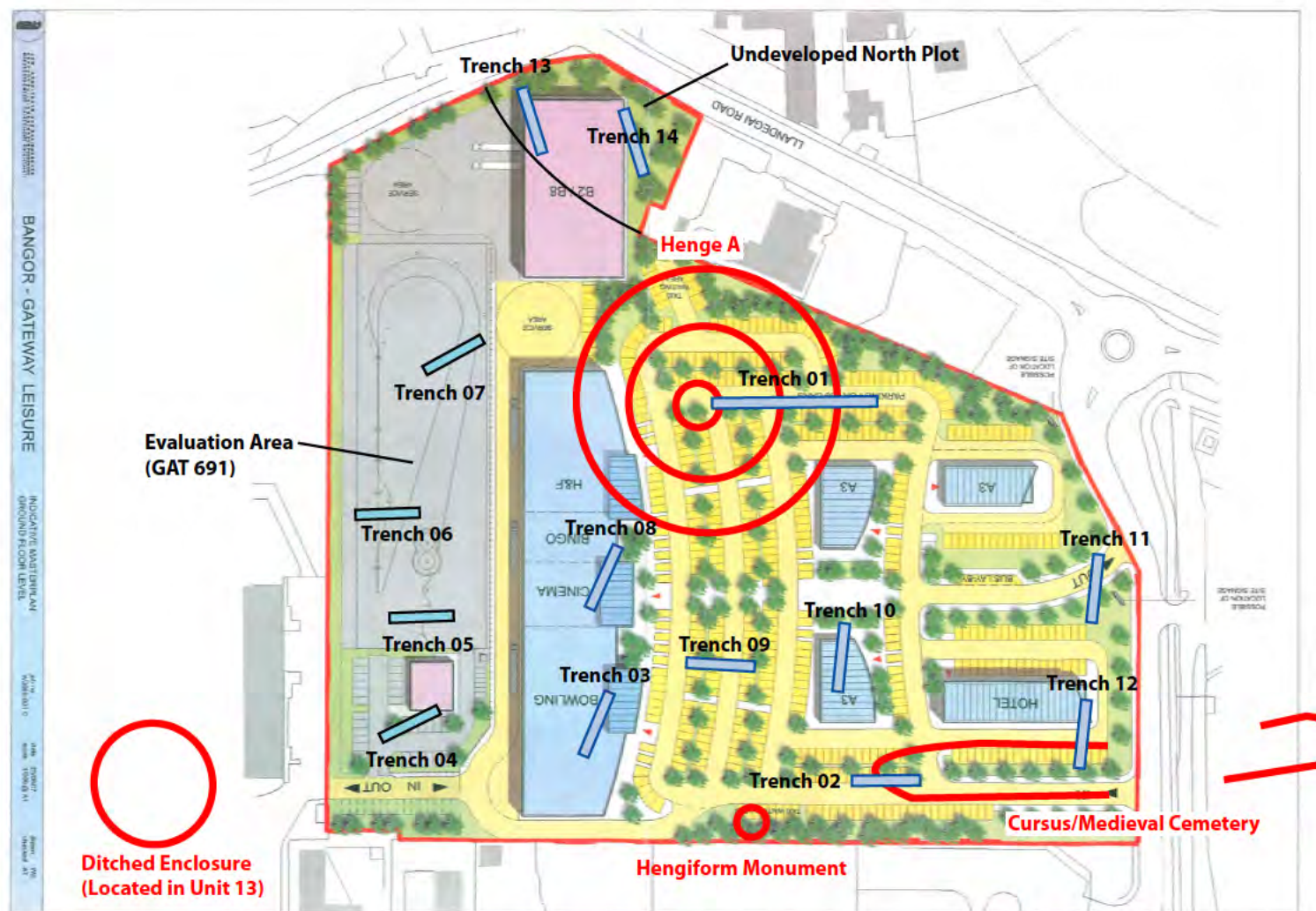


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Figure 7. Direction of Plates
Scale: 1:2000@A4



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**Figure 8. Revised Development
Plan incorporating known
features and prospective
trench locations**
(Based on Drawing W3066-001 C)
Scale: For illustrative Purposes Only

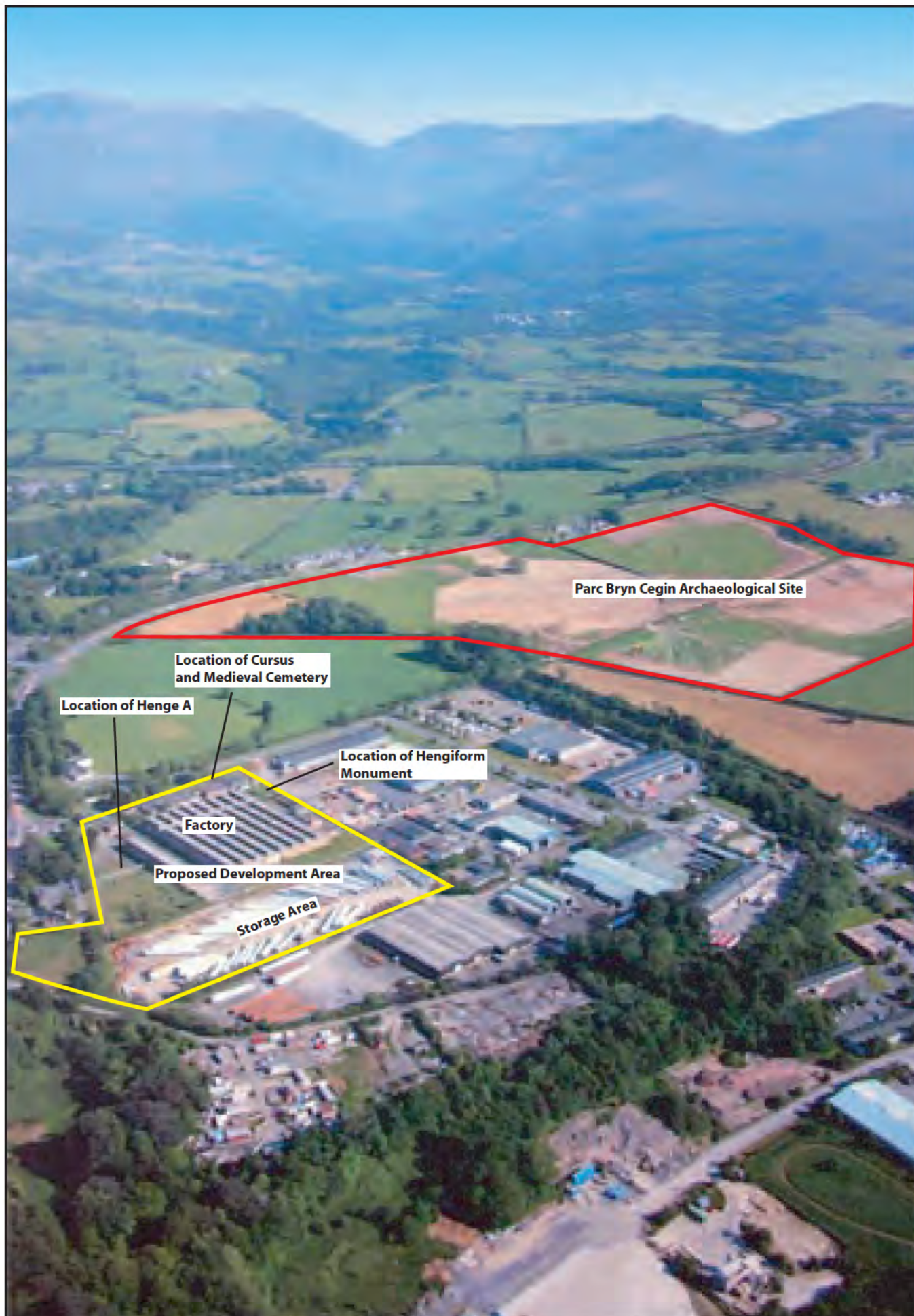


Plate 1: Location of Site and Archaeological Features.
(Image: www.heneb.co.uk)



Plate 2: Northeastern end of development. Location of Henge A (Northern Half)



Plate 3: View east across site. Location of Henge A (Southern Half)



Plate 4: View west of development area. Location of Cursus and Hengiform Monument



Plate 5: Close-up of former ancillary buildings/location of Cursus



**Plate 6: View north of former ancillary building/location of Cursus.
Note change in level between ancillary building and main factory**



Plate 7: Close-up of Hengiform location



Plate 8: Lawn/Landscaped area between factory and storage area



Plate 9: Southern end of site



Plate 10: View of Storage Area



Plate 11: Location of storage area. Note considerable drop in height from factory to this level



Plate 12: View South of North Plot. The area is currently separated from the rest of the proposed development by a high fence and is overgrown. It does not appear that the area has been developed since the land was appropriated for the industrial estate.



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