
A499 Road Improvement Scheme: Post-excavation Assessment



Project Design for phase 3 of MAP2: Assessment of potential for analysis

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Report No. 1282

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Prepared for Cyngor Gwynedd Council

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By

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A499 ROAD IMPROVEMENT SCHEME

Assessment of potential for analysis: Results of Phase 3 of 5, MAP2: Post-excavation

1.0 INTRODUCTION

Cyngor Gwynedd Council has commissioned Gwynedd Archaeological Trust to undertake a programme of archaeological works during the A499 Road Improvement Scheme between Aberdesach and Llanaelhaearn, Gwynedd.

The current report assesses the potential for post-excavation analysis of the results of the project as recommended in *Management of Research Projects in the Historical Environment* (MAP 2). This report includes a quantification of the data collected during the works and a statement for potential from each class of data.

The management of this project follows guidelines specified in *Management of Archaeological Projects* (English Heritage, 1991), and relevant guidelines from *Management of Research Projects in the Historic Environment* (English Heritage 2006). Five stages are specified:

Phase 1: project planning

Phase 2: fieldwork

Phase 3: assessment of potential for analysis

Phase 4: analysis and report preparation

Phase 5: dissemination

The post-excavation stage of the project includes phases 3 to 5. This report is concerned with **phase 3: assessment of potential for analysis**, which discusses the results of **phase 2: fieldwork**, with a view to recommending further archaeological works as part of **phases 4 and 5: analysis, report preparation and dissemination**.

During the excavation some post-excavation work belonging to this phase was undertaken. This consisted of wet sieving soil samples and some sorting of residues, washing and appropriate storage of finds, and some data entry. It was necessary to undertake these tasks at that stage to prevent damage and loss to finds, and to help back-up and organise site records. The costs associated with this design include all costs for post-excavation work whether already undertaken or still to carry out.

1.1 Phase 3: assessment of potential for analysis

The purpose of this phase is to ensure appropriate post-excavation analyses are undertaken. This involves the careful definition of academic and archaeological objectives, to ensure that 'appropriate selection is made and a publication produced which accurately reflects the value of the data collection'. All data sources are to be collated, quantified and assessed for their potential to provide information of relevance. This includes all site records, made up of the written record, drawn record and photographic record, all artefacts, and all environmental samples, including those suitable for dating purposes. Relevant specialists are to be identified for assessing the potential for each category. On completion an assessment report will be compiled, and an updated project design form part of the report.

Style and format of the assessment report will include as a minimum the following:

- A location plan of areas examined and features discovered
- Preliminary plans of features at an appropriate scale
- A summary statement of the results.
- A table summarising the features and artefacts found in each area.
- A preliminary interpretation of the archaeological findings.

Artefact analysis will be sufficient to establish date ranges of archaeological deposits, a general assessment of the types of pottery and other artefacts to assist in characterising the archaeology, and to establish the potential for all categories of artefacts should further archaeological work be necessary.

The current document comprises the final part of Phase 3

An archaeological assessment was carried out in March 1998 (GAT Report No. 298), in which recommendations were made for further evaluation and mitigation. This was updated in February 2001, and a new report issued (GAT Report No. 403), which was incorporated into an Environment Statement that was published in August 2001 (Volume 2A Cultural Heritage of the A499 Improvement between Aberdesach and Llanaelhaearn Environmental Statement).

A phased programme of works was undertaken in response to the proposed mitigation detailed in GAT Report 403 and Volume 2A Cultural Heritage of the A499 Improvement between Aberdesach and Llanaelhaearn Environmental Statement. These works included:

- Trial trenching within defined areas or on specific features
- Strip/map/sample of defined areas
- Recording of upstanding features (Basic and Detailed)

The strip/map/sample was undertaken between November 2006 and January 2007. A total length of 0.5km was investigated.

Trial trenching was undertaken between October 2006 and February 2007. A total of 109 trenches were opened across the length of the scheme.

Recording of upstanding features was undertaken throughout the scheme.

An archaeological watching brief was undertaken during construction.

An initial assessment of potential for analysis was submitted to Cyngor Gwynedd Council in November 2007, with proposed costs for in-house data processing. The current document is an updated version of that document incorporating an initial assessment of all artefactual and palaeoenvironmental data. The proposed costs for producing and publishing the client report and any specialist analysis required are included as Appendix I of *A499 ROAD IMPROVEMENT SCHEME (G1560) Project Design and Costs: Phases 4 and 5 of 5, MAP2: Post-excavation* (unpublished GAT document)

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2.0 AIMS AND OBJECTIVES

The original object of the programme of work was to mitigate the impact of the development on any archaeological remains. This was achieved by undertaking a phased programme of works comprising:

- a review of existing information,
- a phase of evaluation involving small scale geophysical survey and trial trenching,

- further geophysical survey
- a second phase of evaluation with additional trial trenches to further explore features found in the first phase and in the extended geophysical survey
- a combined programme of strip, map and sample excavation,
- followed where necessary by detailed area excavation.

The current objective is to ensure the long term curation of the recovered data, and its dissemination in a form suitable to its academic value in line with nationally defined guidelines.

3.0 METHODOLOGY

3.1 Evaluation, excavation and strip/map/sample

A total of 109 trenches were opened along the scheme.

For ease of reference, the scheme has been broken down into “chainages”, which refer to the measurement system employed by Cyngor Gwynedd Council for describing the length of the road improvement scheme. The measurements begin at the southern end of the scheme at Chainage 0000, continuing northwards to Aberdesach at 100 metre intervals, finishing at Chainage 8200, i.e. 8200m from the start of the scheme. This measurement system is used throughout this document to locate the evaluation trenches and the strip and map areas; e.g. CH6500 to 6600 refers to part of the road improvement scheme between 6500 and 6600m from the start of the scheme.

A 360° tracked excavator and a 180° wheeled excavator were used separately at various stages of the project. Topsoil and unwanted material overlying the archaeological remains were removed by machine. All subsequent features were excavated by hand

The majority of the trenches along the scheme did not contain archaeological activity, although evidence for post-medieval land drainage was noted in several examples. The topsoil within Trenches 09 and 10 at CH8260 and CH8220 respectively, contained flint flakes. No features were identified within the confines of the trench, but the flint flakes could indicate localised prehistoric activity.

Significant archaeological activity was limited to Trenches 37 and 55. Other potential features of interest were located in Trenches 55 and 97.

- **Trench 37:** located at CH7300 (NGR SH42115066) contained a large sub-circular pit that was identified as prehistoric in date (based on artefactual evidence). The trench was subsequently extended to cover an area 60.0m by 25.0m (1625m²) in size. A large number of features were identified within this area, including pits and postholes, and artefactual material, including flint and pottery, was also recovered. The archaeological features formed a disparate pattern indicative of multi-period activity. This was supported by the pottery and flint assemblages that included Late Neolithic to Middle Bronze Age examples.
- **Trench 55:** located at CH5900 (NGR SH41254957) contained remnants of a burnt mound, hearth and trough. No artefacts were recovered but soil samples were taken for environmental analysis from all of the features containing burnt material.
- **Strip/Map/Sample:** the strip, map and sample area was located between CH5600 and CH6600 (NGR SH41004920 to SH41705000), to the west of Clynog Fawr along the proposed route. Clynog Fawr was an important early ecclesiastical centre and the proposed route passed through a field

boundary and across several open fields thought to demarcate the limits of the original foundation dated to between the 6th to 10th century. Although the potential for archaeology was high, only a limited number of features were identified, which included several post-medieval field drains and a large ditch of unknown provenance at CH6275. Due to the limited number of archaeological features recovered between CH6000 to CH6600, the strip, map and sample was reduced in length and terminated at CH6000 (NGR SH SH41504950). The remainder of the designated area, between CH5600 and CH6000, was redesignated as an evaluation area and was investigated using.

3.2 Archaeological Watching Brief

An archaeological watching brief is currently in place along the length of the scheme and has not been completed.

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

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

Both intensive and intermittent watching brief were recommended for this project (see Table 1).

Table 1 Level of watching brief undertaken

(Chainages refer to the metric distances used along the road scheme)

CHAINAGE	LOCATION	DESCRIPTION	Mitigation
CH0000 to CH0400: Area 1	Llanaelhaearn to Sewage works	A new roundabout is to be constructed at the junctions between the A499 and the B4417. The ground slopes gently down to a stream below, and is slightly marshy. Potential for archaeology is medium. Sites 4 and 6 lie within this area – possible post-medieval dwellings – though both appear to have been at least partially destroyed by earlier road widening.	Investigated during evaluation phase. No features identified. No further investigation required as a result of the evaluation
CH0000 to CH1100: Area 2	Llanaelhaearn to Trefor road south.	A relatively narrow area that partially contains an earlier line of the present road. Not investigated as part of the evaluation phase; potential for archaeology is thought to be low.	Intermittent Watching Brief required during groundworks
CH1100 to CH1800: Area 3	Trefor road south to Trefor road north.	The road is over 1m high above the fields, which are in places relatively wet and unimproved. Sites 16 and 19, a possible	Investigated during evaluation phase. No features identified. Site 16 was outside

		enclosure and cairn, lie along this section of the route. Potential for archaeology medium.	of the excavation corridor selected for the road and Site 19 was not identified. No further investigation required except for an Intermittent Watching Brief at CH1800 where alterations are to be made to the existing Trefor Road (North) junction (not investigated as part of the evaluation phase).
CH1800 to CH3700: Area 4	Trefor road north to Gyrn Goch	The proposed road runs through a series of fields on the west side of the road, on relatively level ground. Some soils are fairly wet, others of higher agricultural quality. Industrial remains, specifically tramways leading from two quarries across the road to the coast, feature in this length. Also at the north end are sites 50 and 52, possible remnants of old field boundaries. Potential for archaeology is medium.	Investigated during the evaluation phase. Intermittent Watching Brief required during groundworks
CH4900 to CH5600: Area 5	Gyrn Goch to Penrhiwau access road	The proposals pass through ground that rises steeply to the east, though it also includes some lengths of earlier road. Not investigated as part of the evaluation phase; potential for archaeology is thought to be low.	Intermittent Watching Brief required during groundworks
CH5600 to CH6600: Area 6	Clynnog by-pass	From Penrhiwau to north of Clynnog a new road is proposed passing to the west of the village. Clynnog was an important early ecclesiastical foundation, and the road passes through an enclosure that might demarcate the limits of the original foundation of the 6 th to 10 th century. Potential for archaeology is high. The Clynnog Fawr Link Road/Public Footpath at CH6400 will be monitored during the watching brief phase.	Originally designated as a "Strip, map and sample" area due to the high potential for archaeology. CH6000 to CH6600 was stripped and recorded; no further investigation required. Due to the lack of archaeology within this area the remainder of the strip, map and sample area was redesignated as an evaluation area. Intensive Watching Brief undertaken in response to the

			identification of a burnt mound in Trench 55 (Site 02)
CH6600 to CH 8300: Area 7	North Clynnog to Aberdesach	The improvements vary in width along this section of road, but pass through level fields on both sides of the road. In places the area of impact is too narrow to reveal significant archaeological remains, but in other areas the width is greater, and has medium potential for revealing archaeology. The final design of the improvements is not yet complete, and the full impact of the embankments may be less than currently noted.	Investigated during evaluation phase. Intermittent Watching Brief required during groundworks An area of prehistoric activity, signified by pits, postholes, flint and pottery was identified at CH7300. An area measuring 60.0m by 25.0m (1625m ²) was opened and the features excavated: Intensive Watching Brief Completed.

See paragraph 6.0 for a summary of the results from the watching brief

4.0 SUMMARY OF EXCAVATION RESULTS

4.1 Site 01: Neolithic Occupation Area

Site 01 was located at CH7300 (NGR SH42115066), to the northeast of Clynnog Fawr, within a large rectangular shaped field belonging to Ty'n Coed Farm. Site 01 encompassed two evaluation trenches, 37 and 50. Trench 37 contained evidence for prehistoric archaeological activity within a large sub-circular pit that was identified as prehistoric in date (based on artefactual evidence). The trench was subsequently extended to cover an area 60.0m by 25.0m (1625m²) in size. A large number of features were identified within this area, including pits and postholes, and artefactual material, including flint and pottery, was also recovered. The archaeological features formed a disparate pattern indicative of multi-phased activity. This was supported by the pottery and flint assemblages that included Early to Late Neolithic examples. The features were mostly located within an area of Morainic Drift glacial geology that existed as a plateau surrounded by a gravel bank.

The main focus of activity was towards the centre of the stripped area (the former location of Trench 37), which was designated as Pit Group I and the southern end, Pit Group II. There was limited activity at the northeastern end (former location of Trench 50). It was noted that the features dissipated towards the southwestern end, where the Morainic drift geology was replaced by a distinctive gravel bank.

No further features were identified at the former location of Trench 50. The original features within this trench were dismissed as animal or root action.

4.1.1 Pit Group I

Pit Group I comprised three pits: 3704, 37161 and 37163. The pit group was located towards the centre of the excavation area and was surrounded by a disparate group of small and irregular sub-circular features. Both pit 3704 and pit 37161 cut pit 37163, suggesting the latter was the earliest of the three features. Pit 37163 measured 0.76m in width and 0.20m in depth and contained a stone-rich friable fill (Context 37162). No artefactual material was recovered from this feature. Pit 3704 measured 1.60m in width and 0.38m in depth and contained three charcoal-rich fills indicative of localised burning. Artefactual material was recovered from the primary and tertiary fills, including several sherds of pottery and flint material. This pit truncated the southeastern side of 37163. Pit 37161 truncated the northwestern side of 37163. This pit was of similar size to 3704 and also included pottery sherds. No evidence of burning was identified in this example.

4.1.2 Pit Group II

A group of fourteen pits were identified towards the southern end of the stripped area. Most examples intercut, suggesting intensive use of this area over a short period of time. Both artefactual and palaeoenvironmental material were recovered. The pottery fragments recovered from individual pits appeared to use a similar fabric, suggesting a temporal relationship. This includes two intercutting pits (Contexts 37183 and 37184) and Pit 37192. The exact provenance of these features can only be understood with further specialist analysis (see para. 5.1.4).

Table 2 Pit Group II: List of Features and associated artefacts

Pit Cut Number	Filled by	Cut by	Cuts	Artefacts
37122	37123			Flint and Chert
37151	37152			Pottery
37157	37158			Pottery and Flint
37183	37189		37184	Pottery and Flint

37184	37190 37191	37183		Pottery and Flint
37185	37186			Pottery and Flint
37192	37193			Pottery
37194	37200 37199	37195 37208		Pottery, Flint and Hammerstone
37195	37198		37194	Pottery and Flint
37196	37197			Pottery
37201	37202	37203		Pottery and Flint
37203	37204 37205		37201	Pottery and Flint
37206	37207			None
37208	37209		37194	Pottery and Flint

4.1.3 Other features

4.1.3.1 Pit 3783

This feature was located at the northern end of the stripped area and comprised a 0.68m wide and 0.30m deep pit in which were two artefact-rich fills. The secondary fill contained a large assemblage of pottery sherds apparently from a single large jar with incurving rim with complex grooved and stabbed decoration. Initial analysis by Frances Lynch suggested it was an example of Neolithic Grooved Ware. The exact provenance of this feature can only be understood with further specialist analysis.

4.1.3.2 Pit 37210

This pit was identified at the southwestern end of the stripped area, cut into a gravel bank. It was one of four features identified at this locale but was the only example to contain artefactual and palaeoenvironmental material. The exact provenance of this feature can only be understood with further specialist analysis.

4.1.3.3 Pits 3714 and 3718

Two small pits were identified towards the centre of the stripped area, c.5.0m to the west of Pit Group I. Both pits were of similar size. Pit 3714 measured 0.65m in width and 0.40m in depth and contained flint debitage, pottery sherds and a hammerstone. Localised burning was suggested by charcoal deposits within the pit. Pit 3718 measured 0.65m in width and 0.45m in depth. The associated pit fill also contained flint debitage and pottery sherds as well as two hammerstones. The exact provenance of these features can only be understood with further specialist analysis.

4.1.3.4 Pit 37121

A small pit located at the southwestern end of the site. This feature was located several metres to the west of Pit Group II and was the only identifiable feature recorded on the gravel bank (the remaining features were concentrated within a Morainic Drift plateau). There were sub-circular features within the vicinity of Pit 37121, but none of these examples contained any artefactual or palaeoenvironmental evidence suggestive of human activity and may have been glacial in origin.

4.1.3.4 Pits 3767, 3769, 3771 and 3774

Amorphous collection of sub-circular features. Unclear as to whether they form a distinctive group of pits, but they were of similar size (c.0.30-0.40m in width and c.0.10-0.15m in depth) and three examples (Pits 3767, 3769 and 3771) contained charcoal. No artefacts were recovered from these examples.

4.1.3.5 Pits 3737 and 3746

Two sub-circular features located at the eastern end of the stripped area. Surrounded by an irregular assortment of amorphous features, which were interpreted as glacial in origin. Pits 3737 and 3746 both contained artefactual material indicative of prehistoric activity: Pit 3737 contained pottery sherds and 3746 a chert flake and pottery sherds. Palaeoenvironmental samples were recovered from both features.

4.1.3.6 Pits 3725, 3728 and 3730

Three pits located towards the centre of the stripped area. Unclear as to whether they form a distinctive pit group. Pits 3725 and 3730 were of similar size but neither contained suitable palaeoenvironmental material and artefactual activity was limited to unworked flint in Pit 3725. Pit 3728 was a wide (1.10m) but shallow (0.20m) pit that contained a single charcoal-rich fill. Artefactual evidence was limited to flint debitage. The charcoal was recovered for Palaeoenvironmental sampling.

4.1.3.7 Pit 37181

Amorphous pit towards northeastern end of stripped area, 1.5m wide and 0.30m deep. Fragmented pottery was recovered from the fill along with a Palaeoenvironmental sample.

4.1.3.8 Pits 3753 and 3755

Two intercutting pits with an amorphous shape. Palaeoenvironmental and artefactual samples recovered. The latter included pottery and flint.

A total of 61 features were identified and recorded within Site 01. Only 33 examples contained artefactual and/or palaeoenvironmental activity suggestive of human activity. The remaining features could not be provenanced and were mostly identified as glacial in origin.

4.1.4 Specialist Analysis

4.1.4.1 Lithics

All recovered lithic material including flint and chert recovered from Site 01 will be sent to George Smith (Gwynedd Archaeological Trust) for further analysis. Costings are given in Appendix I of *A499 ROAD IMPROVEMENT SCHEME (G1560) Project Design and Costs: Phases 4 and 5 of 5, MAP2: Post-excavation* (unpublished GAT document).

4.1.4.2 Pottery Sherds

All recovered pottery sherds will be sent to Frances Lynch for typological analysis. Costings are given in Appendix I of *A499 ROAD IMPROVEMENT SCHEME (G1560) Project Design and Costs: Phases 4 and 5 of 5, MAP2: Post-excavation* (unpublished GAT document).

In addition Frances Lynch has recommended petrographic analysis of the sherds by David Jenkins (16 samples). Petrographic analysis may determine the potential source of the material used to produce the pottery and whether the pottery was imported or made locally.

4.1.4.3 Palaeoenvironmental samples

A total of 61 palaeoenvironmental samples were recovered from Site 01 and have been processed by flotation and wet sieving. The residue has been sorted to check for small artefacts.

Lists of contexts that are a high priority for radiocarbon dating have been produced and 6 samples have been recommended for further analysis:

- Context 3705: primary fill of Pit 3704 from Pit Group I. This pit truncates an earlier pit and contains extensive artefactual material. The radiocarbon date may prove useful in comparing this feature with the other pit groups and features identified in Site 01. A polished axe fragment was recovered from this fill.
- Context 3721: upper fill of Pit 3718. This pit, along with Pit 3714, forms a small pit group to the west of Pit Group I. A radiocarbon date from this deposit may prove useful in comparing this feature with the other pit groups and features identified in Site 01
- Context 37199: primary fill of Pit 37194 from Pit Group II. This feature has been truncated by two later pits (Pits 37195 and 37208) and may be one of the earliest features associated with this group.
- Context 37189: fill of Pit 37183. This pit truncates Pit 37184 and may be one the later features associated with this group (Pit Group II). The radiocarbon date may prove useful in comparing this feature with the other pit groups and features identified in Site 01.
- Context 3729: charcoal-rich fill from Pit 3728 located towards eastern edge of stripped area. Part of an irregular assortment of features within this area. The radiocarbon date may prove useful in comparing this feature with the pit groups and other features identified in Site 01.
- Context 37212: Primary fill of Pit 37210 which was an isolated feature located along the gravel bank to the southwest of the main group of features. The radiocarbon date may prove useful in comparing this feature with the pit groups and other features identified in Site 01. A polished axe fragment was recovered from the secondary fill of Pit 37210 (context 37211).

It is recommended in all cases that two dates from each sample are obtained, in order to assess the veracity of the samples.

The quality and quantity of charred plant material from these contexts will be assessed by EPSL (INTEC, Parc Menai, LL57 4FP) and the best contexts for dating will be chosen on both stratigraphic criterion, lack of disturbance and the quality of material to be dated. From each of these contexts a suitable sample of charred plant material will be chosen and sent for radiocarbon dating (University of Kiel, Germany). Costings are given in Appendix I.

Whilst a large assemblage of identifiable artefactual material has been recovered from Site 01, it is felt that the radiocarbon dates will assist in understanding the temporal relationships between the pit groups and individual features

4.2 Site 02: Burnt Mound Area

Site 02 was located at CH5900 (NGR SH41254957) within evaluation trench 55. This trench was located within a wetland area. A deposit of heat fractured stone was identified at the southern end of the trench. This deposit was thought to signify the remains of a burnt mound. The trench was subsequently extended to the northwest and southeast to examine the full extent of this deposit. The full extent of the deposit was identified and a small hearth and water trough were also recorded.

Burnt mounds have been located quite widely in Britain and Ireland and the majority, when dated, prove to belong to the second millennium BC. They are not fully understood, but consist of a pit or pits into which water was introduced and then heated by the insertion of stones heated in a fire close by (Barfield and Hodder 1987). This is believed to have been for communal cooking of joints of meat and the efficacy of the method has been proved by experiment (O'Kelly 1954). The repetition over many episodes of the heating process and the discard of shattered stones leads to the accumulation of a mound or spread of burnt stones. These features provide the main evidence for domestic activity in the second millennium BC.

No artefacts were recovered from Site 02 but soil samples were taken for palaeoenvironmental analysis from all features containing burnt material. The burnt mound was located on a bank of orange glacial silt close to an extensive deposit of grey alluvial silt. The alluvial deposit suggested that a watercourse may have existed in this location, with the burnt mound situated in close proximity to facilitate access to water.

4.2.1 Burnt Mound

Amorphous and truncated deposit of heat reddened stone indicative of burnt mound activity (Context 0110). Partially disturbed by cultivation (most likely post medieval). The "mound" was spread across the western side of the site, with an associated hearth, trough and pit located to the immediate east.

4.2.2 Burnt Mound Hearth

The remains of a wide but shallow hearth within a 1.50m long and 0.07m deep hollow containing charcoal and heat fractured stone (Context 0111 and associated fill, Context 0115). Heat reddened earth around the edge of the feature indicates *in situ* burning. Palaeoenvironmental sample taken from Context 0115.

4.2.3 Burnt Mound Trough

Rectangular shaped pit/trough associated with the burnt mound and located c.1.0m to the east of the hearth. The pit measured 1.20m in width and 0.80m in depth and contained a primary, secondary and tertiary fill. The primary fill (Context 0119) contained a 0.10m thick charcoal-rich clay-silt; the secondary fill (Context 0118) contained a 0.40m thick deposit of fire-cracked stone; the tertiary fill (Context 117) was a 0.30m thick deposit of fire-cracked stone.

4.2.4 Pit

An irregular semi-circular pit (Context 0121) 2.30m long, 2.20m wide and 0.40m deep, located to the immediate east of the burnt mound trough. The pit contained a series of deposits indicating the gradual filling of the pit with layers of heat cracked stone similar to that identified with the burnt mound and also in the secondary and tertiary deposits of the trough. This suggested the pit was used to accommodate the refuse from the trough when it was emptied of burnt stone.

4.2.5 Specialist Analysis

4.2.5.1 Lithics

No lithic material was recovered from Site 02.

4.2.5.2 Pottery Sherds

No ceramic material was recovered from Site 02.

4.2.5.3 Palaeoenvironmental samples

A total of **5** palaeoenvironmental samples were recovered from Site 02 and have been processed by flotation and wet sieving. The residue has been sorted to check for small artefacts.

Lists of contexts that are a high priority for radiocarbon dating have been produced and all 5 samples have been recommended for further analysis (Costings are given in Appendix I):

Context 0110: burnt mound

Context 0115: burnt mound hearth

Context 0119: primary fill of burnt mound trough

Context 0127: primary fill of pit associated with trough

Context 0125: tertiary fill of pit associated with trough

The quality and quantity of charred plant material from these contexts will be assessed by EPSL (INTEC, Parc Menai, LL57 4FP) and the best contexts for dating will be chosen on both stratigraphic criterion, lack of disturbance and the quality of material to be dated. From each of these contexts a suitable sample of charred plant material will be chosen and sent for radiocarbon dating (University of Kiel, Germany). Costings are given in Appendix I.

Burnt mounds are generally assumed to be Bronze Age but earlier and later mounds are known. During the A497 Road Improvement Scheme along the southern end of the Llŷn peninsula (GAT Report 624) a Late Neolithic/Early Bronze Age burnt mound was identified near the Hafan y Mor Holiday Camp (NGR SH 4326 3713) and another Middle to Late Bronze Age example was identified to the west of Llanystumdwy in a farmer's field (NGR SH 4501 3775).

Burnt mounds are relatively numerous and about 100 are known in north Wales as a whole (GAT Report 624). Most of them are found in the marginal areas of the uplands of the mainland (Kelly 1992), with, until recently, only nine known on Anglesey. However, the lack of known sites in the lowlands may be simply a result of poor survival in an intensively cleared and farmed agricultural landscape. For instance, over 300 have been recorded in the undulating lowlands of south and south-west Wales (Williams *et al*/1987, 240). In north Wales, recent survey and excavation in advance of the A55 road scheme in Anglesey identified six more burnt mounds and two others have been identified during pipeline schemes (Davidson 1998). The identification of this example and the other examples during the A497 Road Improvement Scheme proves that such sites also existed in the lowland of the Llŷn peninsula.

As burnt mounds may have been used over a long time period this means that the dates recovered are often far from representative of the real duration of the sites and the value of obtaining radiocarbon dates from a number of fills within the pit (Contexts 0125 and 0127) and the trough is that a suitable timeline may be formed.

4.3 SITE 03: DITCH & LATER ACTIVITY NEAR ST. BEUNO'S CHURCH, CLYNNOG FAWR

The strip, map and sample area was located between CH5600 and CH6600 (NGR SH41004920 to SH41705000), to the west of Clynnog Fawr along the proposed route. Clynnog Fawr was an important early ecclesiastical centre and the proposed route passed through a field boundary and across several open fields thought to demarcate the limits of the original foundation dated to between the 6th to 10th century. Although the potential for archaeology was high, only a limited number of features were identified, which included several post-medieval field drains and a large ditch of unknown provenance at CH6275 (Context 0064). The latter was thought to be a possible remnant of the original church foundation and was fully investigated within the strip, map and sample area. Due to the limited number of archaeological features recovered between CH6000 to CH6600, the strip, map and sample was reduced in length and terminated at CH6000 (NGR SH41504950). The remainder of the designated area, between CH5600 and CH6000, was redesignated as an evaluation area and was investigated using trial trenching.

4.3.1. Large ditch (Context 0064)

Although the potential for archaeology was high, only a limited number of features were identified. Apart from several post-medieval field drains, the most prominent feature was a large ditch of unknown provenance in a field to the north St. Beuno's Church. The ditch was thought to be a possible remnant of an earlier ecclesiastical boundary, but no artefactual evidence was recovered for dating. The ditch had been completely backfilled. The fact that it was not listed on any available map evidence suggests this was prior to its exploitation as an enclosed field for pasture. The ditch (Context 0064) was located c.110.0m to the northwest of St. Beuno's Church and was orientated south-southeast to north-northwest. The ditch measured between 2.0m and 3.0m in width and was extant to a length of 30.0m within the confines of the strip/map/sample area. The ditch was cut into a glacial silt and there was extensive waterlogging throughout the area. The ditch had been backfilled and towards the centre of the ditch, atop the backfill, was a 5.0m long and 2.0m wide shallow pit (Context 0063) containing burnt clay and slag waste. Several other smaller pits containing similar material were located between the larger pit and the southern edge of the strip/map/sample area. Located atop the northern end of the backfilled ditch was a stone-rich bank, 1.0m high and 4.50m wide. It appeared that this bank had been placed over the ditch to facilitate farm traffic as this area was particularly prone to waterlogging. Several other smaller features were identified across the area, including a modern field drain.

The ditch had a U-shaped profile and measured c.1.0m in depth, suggesting it was a wide but relatively shallow ditch. The ditch had been filled by a series of deposits that included evidence of deliberate backfilling.

The primary fill (Context 0075) measured 0.20m in depth and was a grey-brown clay silt that may represent a waterlogged deposit, possibly from perennial flooding or from acting as a field drain. Both the secondary and tertiary fills were indicative of deliberate backfilling: the secondary fill (Context 0076) appeared to have been deposited from the eastern edge of the ditch, forming a distinct tipping line over the primary fill. This was followed by a second tipping layer (Context 0077), deposited from the western edge of the ditch. This second tipping layer contained a large quantity of stones (<0.40m in size). It wasn't clear whether the stone-rich deposit represented a former bank associated with the ditch or whether the stone was included to facilitate a rapid infilling of the ditch. Either way these deposit signified that the ditch was deliberately backfilled. A thin silt-rich deposit was identified above the tipping layers (Context 0078), suggesting further waterlogging of the area after the backfilling of the ditch. Above this silt layer was

a slag-rich deposit that may have been contemporary with the slag-rich pits. The existence of the thin silt layer between the ditch fill and this slag-rich deposit, suggests the ditch had gone out of use prior to the use of the local area for smithing. The exact provenance of the ditch was unclear and it was not proven whether it was a ditch associated with the former demarcation of St. Beuno church land.

4.3.2 Area of slag/industrial activity (Context 0063)

A series of pits containing slag/burnt clay were identified, partly covering the backfilled ditch (Contexts 0063, 0069, 0071 and 0073; centred on SH41434982). The exact provenance of these features was unclear but it was thought initially to represent post-medieval activity. A local smithy is listed on the available maps to the east along the main road. However, an initial inspection of the slag by Peter Crew suggested the material appeared to be dense fayalitic slags, typical of those from the smithing of bloomery iron, and so they are “of some antiquity and unlikely to derive from the modern smithy nearby” (pers. comm.). The only diagnostic pieces are two smithing hearth cakes. One bag contains fragments of burnt clay which has some shaping implying that it is from some kind of structure. Although heavily burnt, none of this material seems to be vitrified, so may not be from a smithing hearth.

4.3.3 Specialist Analysis

4.3.3.1 Lithics

No lithic material was recovered from Site 03.

4.3.3.2 Pottery Sherds

No ceramic material was recovered from Site 03.

4.3.3.3 Slag

Slag material from Context 0063 have been recovered and submitted to Peter Crew for initial inspection prior to full analysis.

4.3.3.4 Palaeoenvironmental samples

A palaeoenvironmental sample was recovered from Context 0063 within Site 03, which has been processed by flotation and wet sieving. The residue has been sorted to check for small artefacts.

The quality and quantity of charred plant material from this context will be assessed by EPSL (INTEC, Parc Menai, LL57 4FP) and the best material for dating will be chosen on lack of disturbance and the quality of material to be dated. From this a suitable sample of charred plant material will be chosen and sent for radiocarbon dating (University of Kiel, Germany). Costings are given in Appendix I.

The value of extracting any dating evidence from Context 0063, either from the analysis from the slag material and/or the radiocarbon results, would be to suggest a provenance for the smithing activity and also the suggest a *terminus ante quem* for the ditch and its associated fills. St. Beuno's Church is thought to have been founded between the 6th to 10th centuries and it is possible the ditch may be associated with the original boundary demarcation of the church. The potential dating evidence from the smithing slag may assist in elucidating this hypothesis.

5.0 SUMMARY OF WATCHING BRIEF RESULTS

No significant archaeological features have been identified during the course of the watching brief. An intensive watching brief was undertaken at the location of Sites 01 and 02 (paras. 5.1 and 5.2 respectively) but no further activity was identified.

A summary of the watching brief results will be included in the final project report.

6.0 QUANTIFICATION OF RESULTS

Context sheets	352	
Plan and section drawings	117 drawings on 53 sheets	
Digital photographs	1466	

6.1 Environmental samples

Trench 37. Prehistoric.	61
Trench 55. Prehistoric.	6
Strip map and sample. Medieval/Post Medieval.	8
Total	75

6.2 Finds

The numbers refer to the quantity individual pieces and sherds, unless otherwise stated.

Prehistoric pottery	32	
Flint/chert	226	
Worked stone		17
Slag (bags)	7	
Quartz	18	
Total	300	

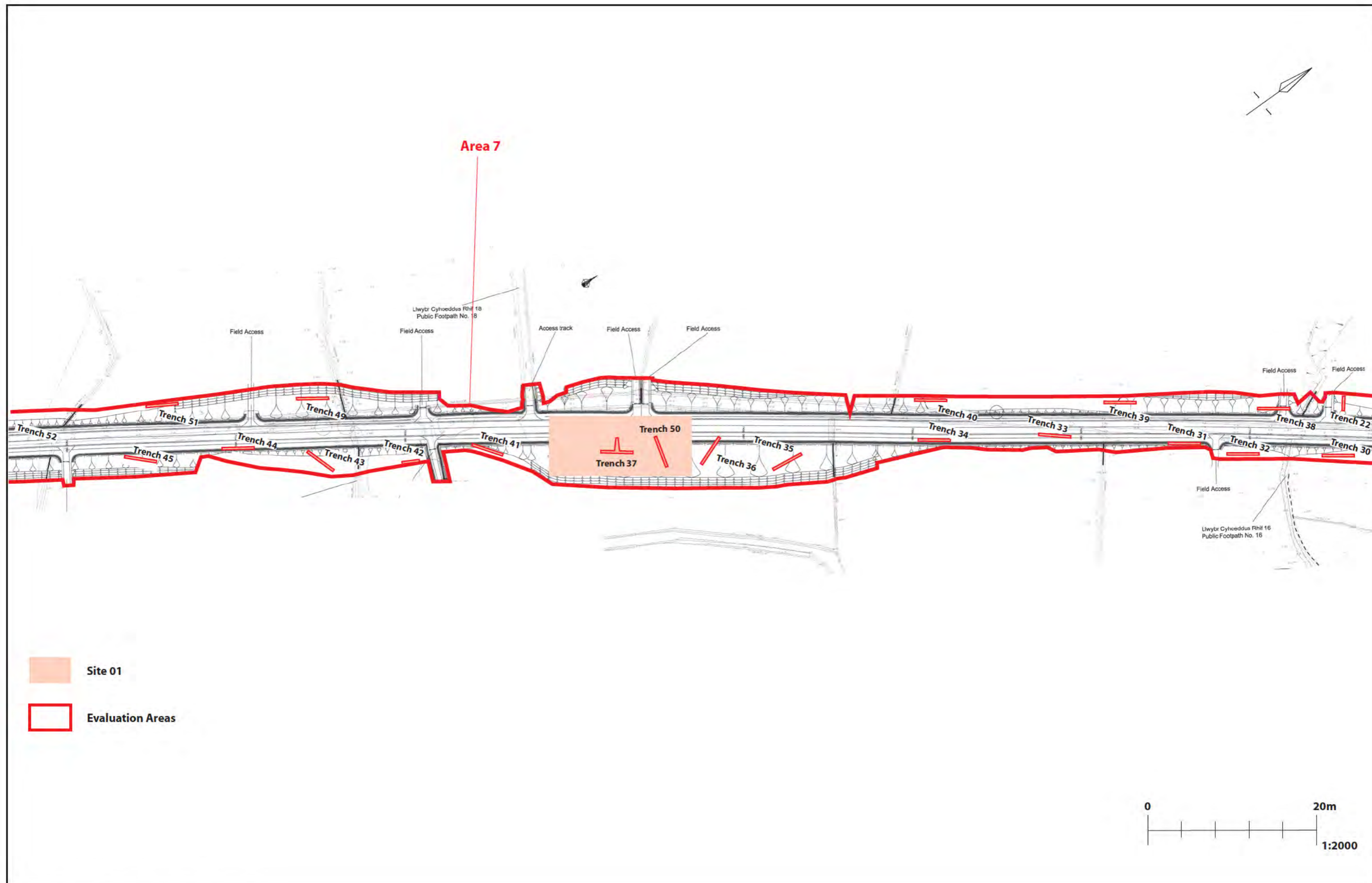


Figure 01: Location of Site 01

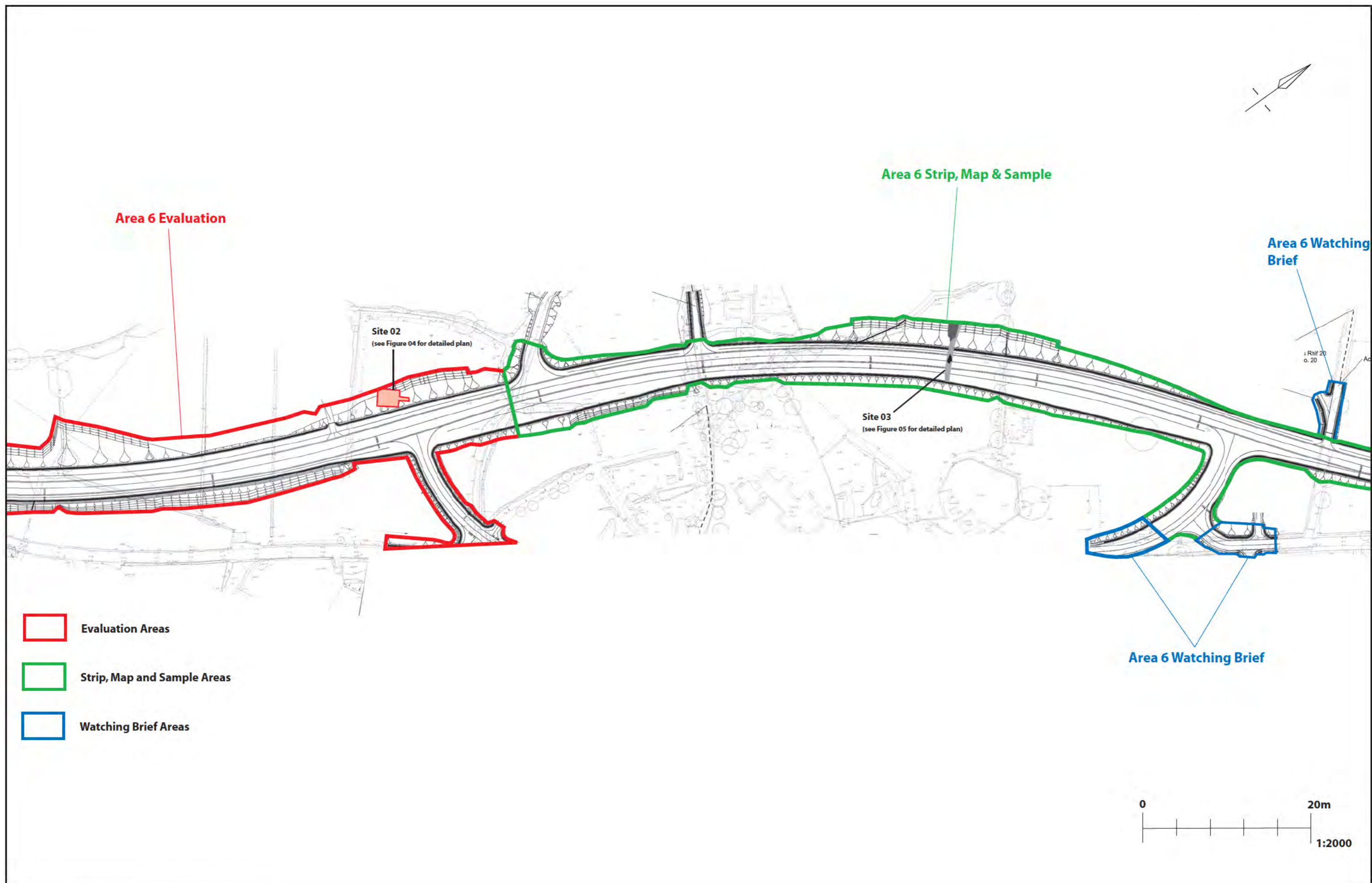


Figure 02: Location of Sites 02 & 03

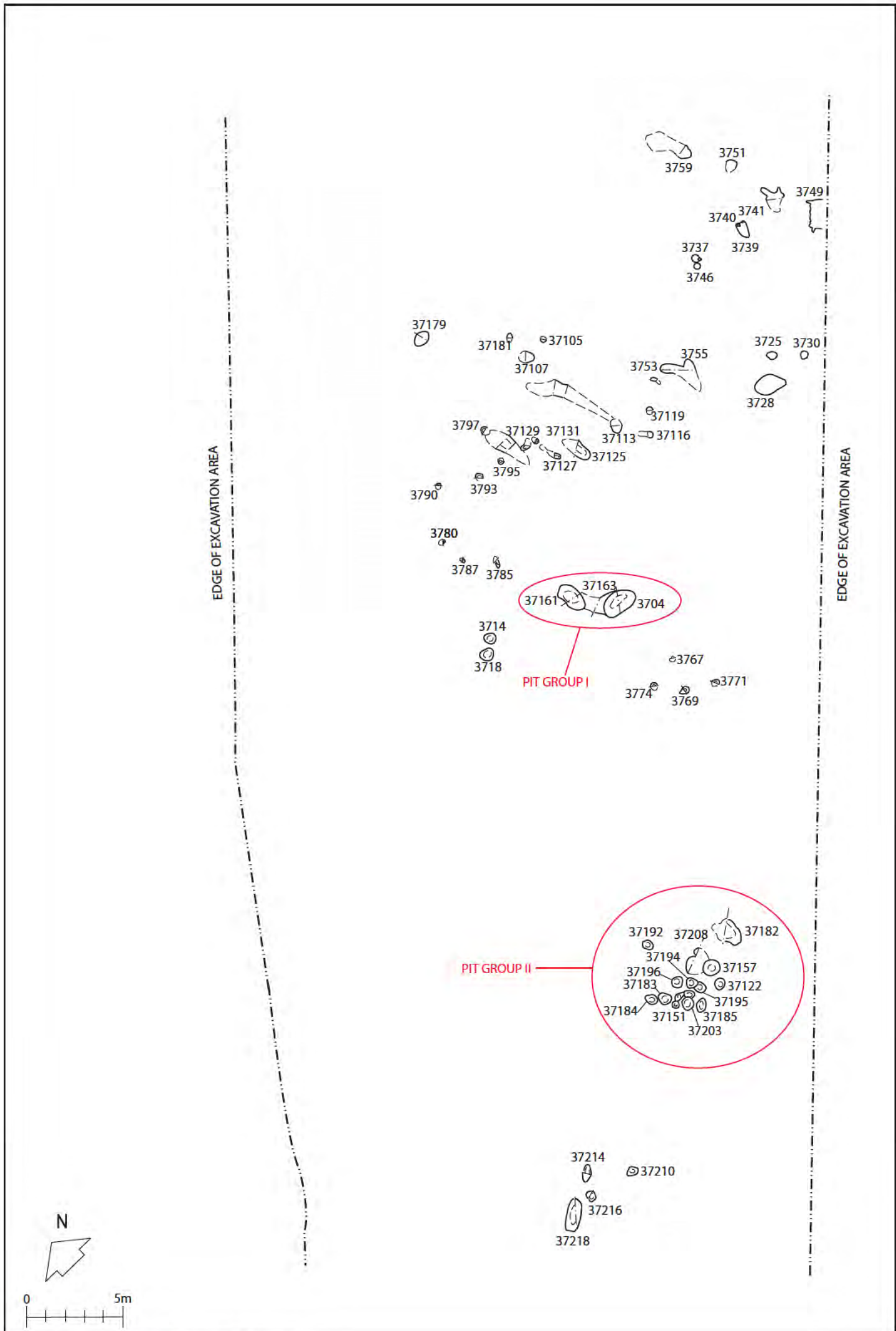


Figure 03: Site 01: Distribution of Features

Figure 04a: Plan of Site 02 (Trench 55)

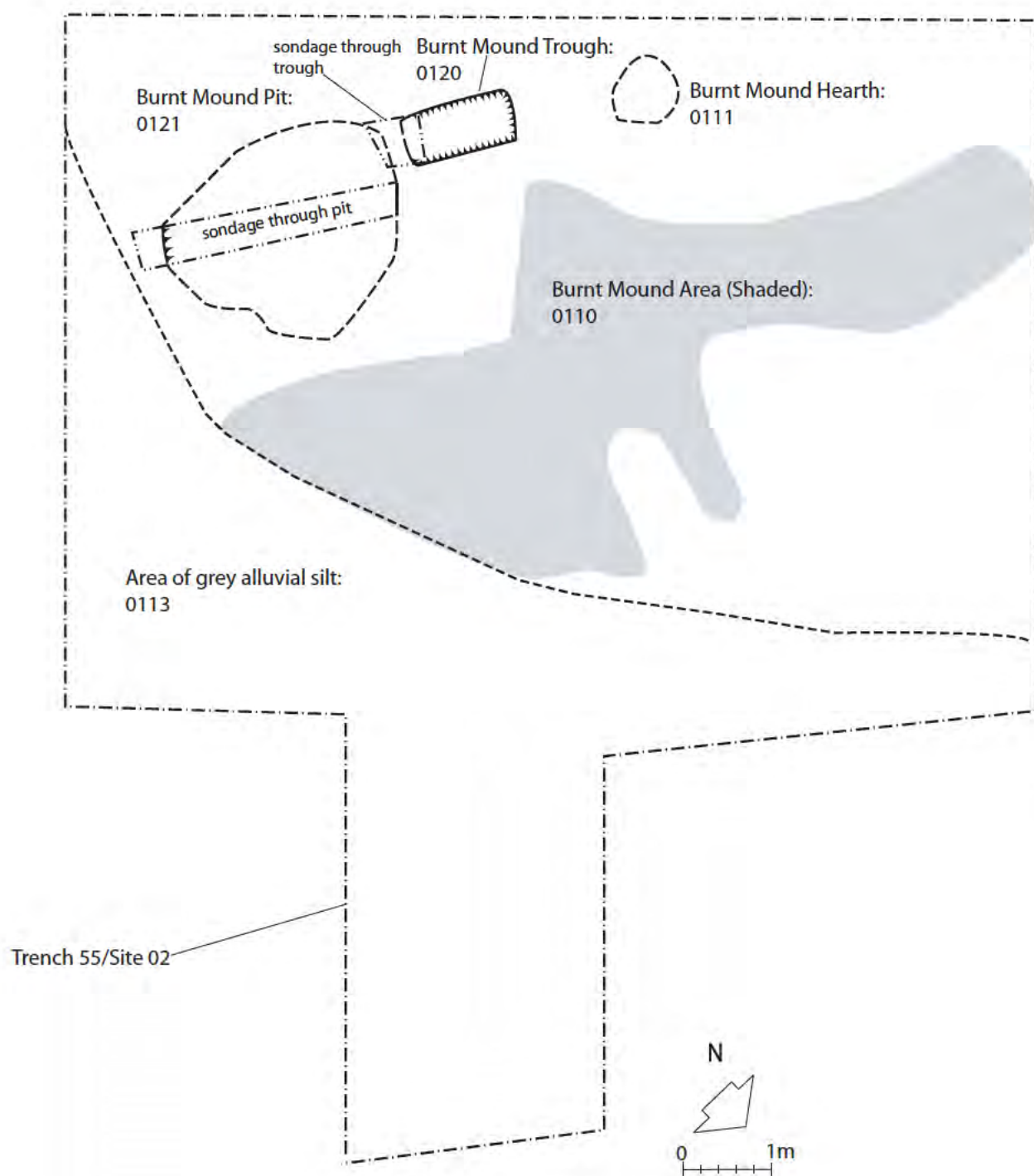
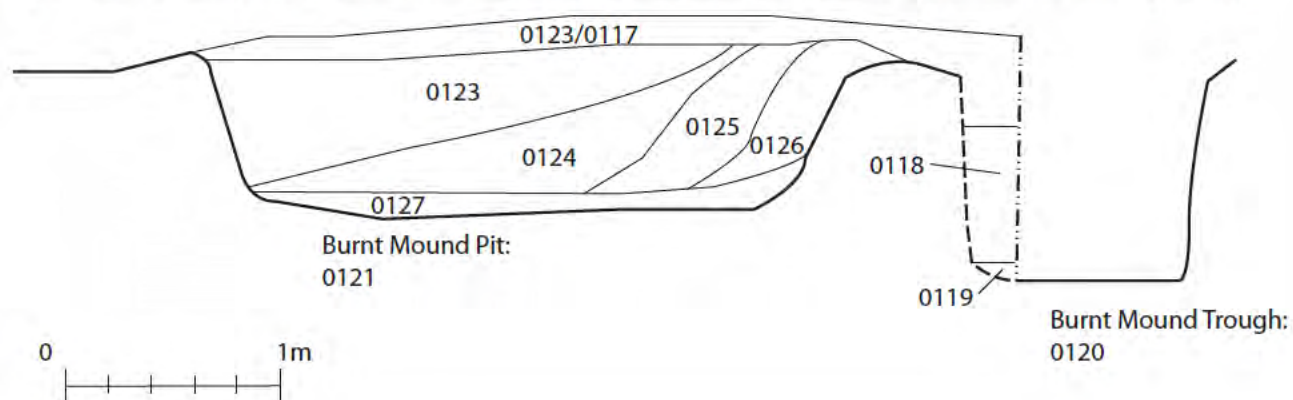


Figure 04b: Northeast facing section combining information from sondages through burnt mound trough and pit



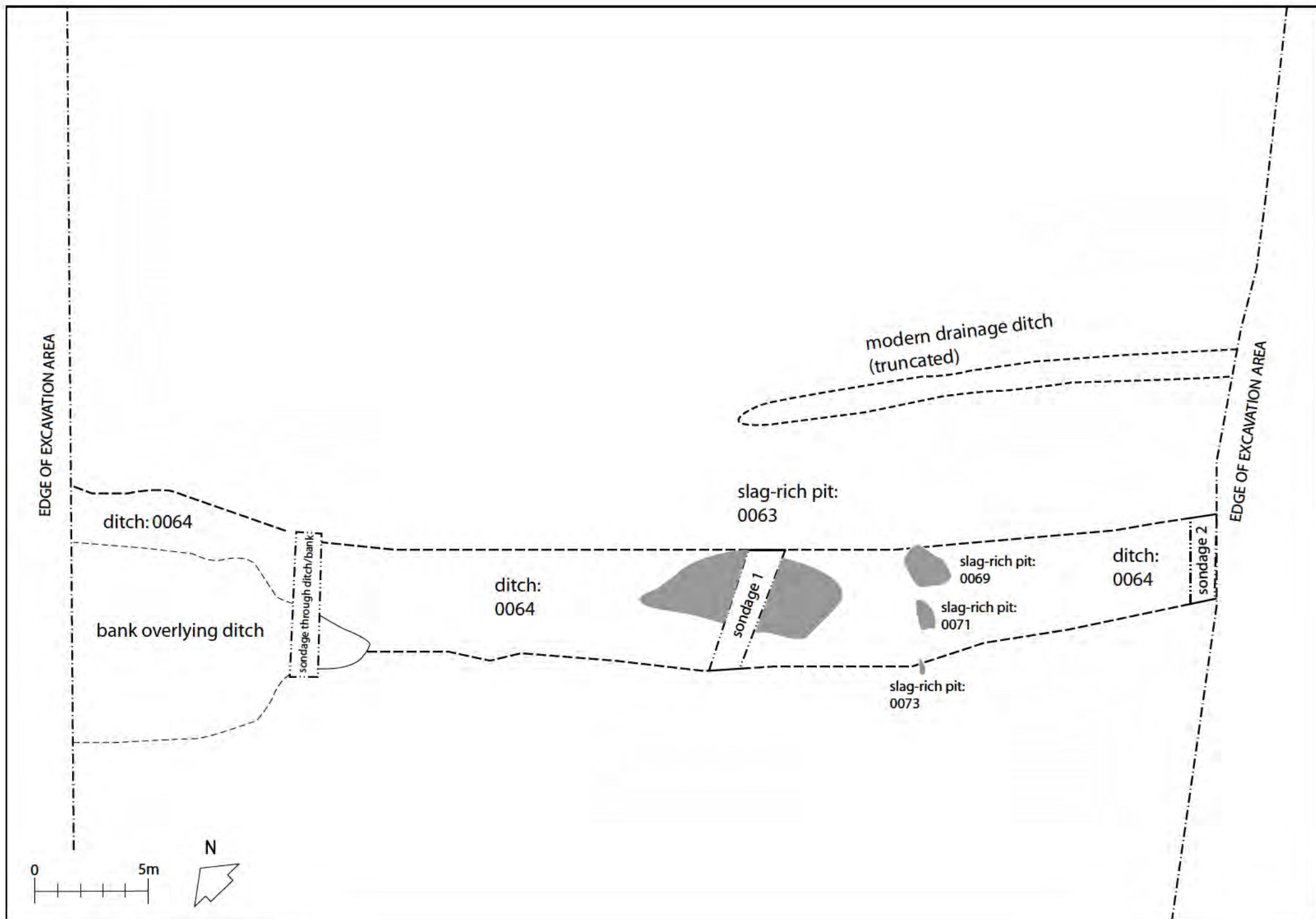


Figure 05: Site 03: Distribution of Features

Figure 06a: Sondage 1: northwest facing section of ditch cut 0064

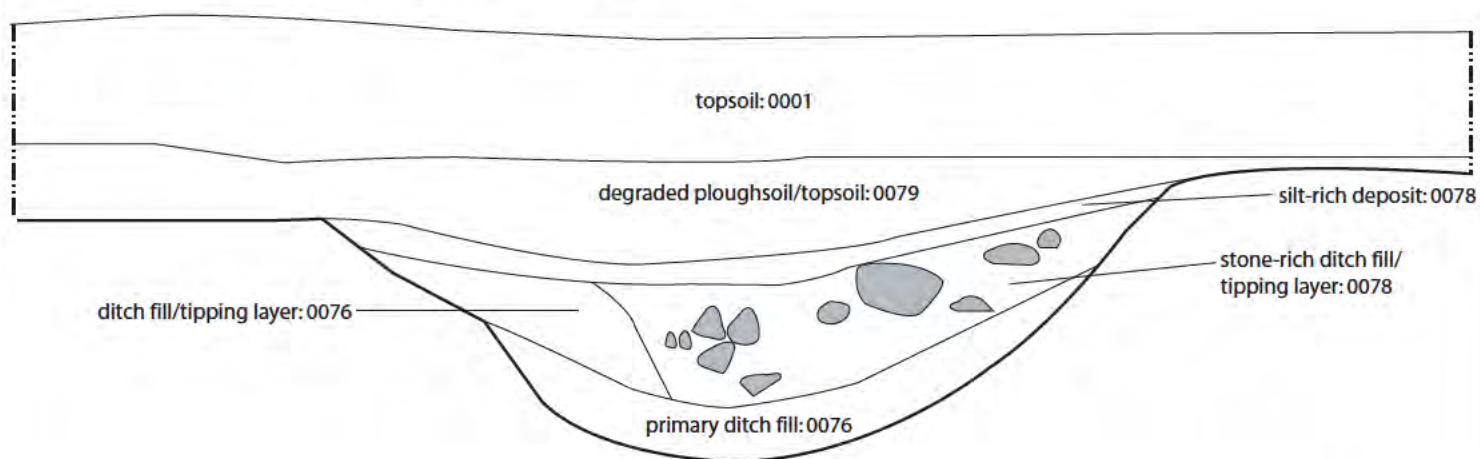


Figure 06b: Sondage 2: southeast facing section through ditch cut 0064 and slag-rich 0063

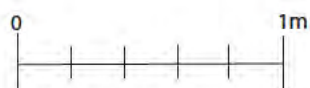
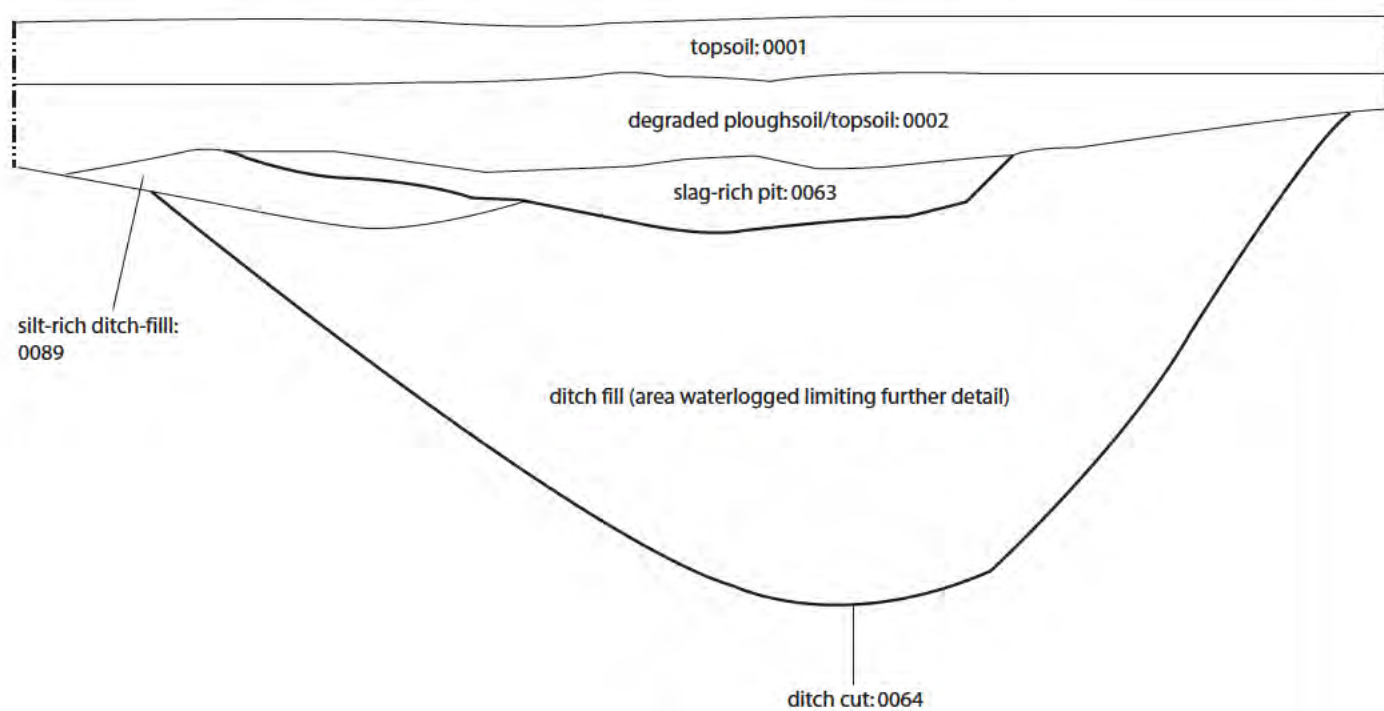




Plate 01: Site 01 - Pit 3704 East facing section



Plate 02: Site 01 - Pit 37161 West facing section



Plate 05: Site 01 - Pit 37210 Northeast facing section



Plate 06: Site 02 - Hearth and trough associated with a burnt mound



Plate 03: Site 01 - Pit 3783 partially excavated detailing large pottery assemblage



Plate 04: Site 01 - Pit 37189 Northeast facing section



Plate 07: Site 03 - West facing section through Ditch 0064



Plate 08: East facing section through slag-rich pit 0063 and ditch 0064



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