Land to the North-West of Tremadog (Llidiart Yspytty)

Archaeological Assessment

GAT Project No. 1736
Report No. 546
October 2004

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust
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Prepared for Capita Symonds

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By

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ARCHAEOLOGICAL EVALUATION (G1736)

Summary
A programme of survey and trial excavation was undertaken on the site of the proposed hospital at Llidiart Yspytty in order to ascertain the archaeological status of specific features, and to identify any unknown archaeological remains. A rock-cut drain or leat was surveyed, and a section excavated across it. Though its function remains elusive, it was dug to carry water below and parallel to the former turnpike road from a level platform at the top of the hill down the slope. At the base of the slope a building is marked on the 1887 OS map, which may have been associated with the channel, however no remains of the structure could be found by excavation. A section excavated across the former turnpike road showed it to have been very lightly constructed by digging a terrace into the slope, and constructing a revetment wall on the down-slope side. Excavation on a narrow terrace revealed remains of a dry-stone built structure of possible Roman date. Excavation across the Gorseddau tramway found remains of the stone bed which had been laid onto a levelled terrace. Recommendations are made for full excavation of the dry-stone structure and part of the tramway, and a watching brief elsewhere.

1. INTRODUCTION

Capita Symonds has asked the Gwynedd Archaeological Trust to undertake an archaeological evaluation in advance of a proposed development at Tremadog, Gwynedd on behalf of North Wales NHS Trust. The proposed development is centred on SH 557402 and the affected area is indicated on the site plan (Figure 1). This constitutes the study area of the present document. The development area contains remains of ironstone mining, possibly of Roman origin and significant road and railway remains. Adjacent to the site is a Roman bathhouse (now buried beneath the garden of the adjoining house), and finds of Mesolithic/Neolithic date were recovered west of the A487 during trial excavations in 1995. The development area falls within a designated Landscape of Historic Interest (HLW (Gw) 7 Aberglaslyn) and within Historic Landscape Characterisation Area 35, Llidiart Yspytty (GAT Report 519).

Gwynedd Archaeological Trust undertook an initial assessment of the site in May 2002 (Hopewell and Gwyn 2002, GAT Report no. 455), which was updated to take into account changes in layout of the proposed development in February 2004 (Hopewell and Gwyn 2004, GAT Report no. 519). The assessment report contained recommendations for field evaluation. A project design was prepared for the evaluation (see appendix I) that conformed both to the recommendations specified within the assessment report and to the guidelines as specified within the *Standard and Guidance for Archaeological Field Evaluation* (Institute of Field Archaeologists, 1994, rev. 1999).

2. ARCHAEOLOGICAL AIMS

The aims of the archaeological evaluation were to ascertain the archaeological status of the features identified in GAT Report 519, and to identify any hitherto unknown archaeological remains, through a programme of field evaluation.

3. METHODOLOGY

3.1 Introduction

Two phases of work were undertaken on the site. In May 2004 a topographic survey was undertaken of the road and tramway to aid interpretation of these features, and to help understand the presence of a rock-cut ditch that ran parallel to the turnpike road.

The second phase of work involved excavating a series of trial trenches. This took place between the 9th and the 14th of June 2004, when six trenches were excavated in order to investigate relevant features.

A comprehensive metal detector survey was undertaken throughout the study area. The presence of the Roman bath house below the site may have led to Roman activity in a wider area, and it was thought a metal detector survey would identify any Roman coins that survived. The survey found a medieval coin close to the Gorseddau tramway, and a number of post-medieval objects, though nothing of earlier date. The work was undertaken by Archie Gillespie, to whom we are very grateful.

3.2 Work Method

The survey was undertaken using a Geodimeter 600 Total Station, and the subsequent scale drawings were compiled using a combination of computer programs including Survey Control Software and Adobe Illustrator.

The trial trenches were initially excavated using a 6.5 tonne 360° tracked excavator fitted with a 1.80m ditching bucket. Once sensitive layers were reached, excavation proceeded by hand.

Identified features were recorded photographically and by notes and sketches, and located by measuring from the field boundaries. The project archive is held by GAT under the project number G1736.

4. RESULTS OF THE SURVEY AND EVALUATION

4.1 Survey results

Introduction
The principal aim of the survey was to gain a better understanding of the relationship between the line of the pre-1848 turnpike road, a rock-cut ditch that was largely obscured by vegetation, and the Gorseddau Tramway.

Parts of the area were heavily overgrown with gorse and brambles. A narrow path was cut through the undergrowth allowing the linear features to be traced. Further clearance was not possible due to environmental constraints. Detail was added to the total station survey using taped offsets.

The tramway and part of the road are shown on the 1887 25" OS map (Carnarvonshire XXXIV.11 – see fig 3). The 1915 edition shows some areas of rock that could correspond to the rock cut feature but it is not depicted as continuous (fig 5). Both editions show a long narrow enclosure of unknown function that is no longer visible, and through which the ditch appears to pass.

The individual features are described below, and the results shown on fig 6.

The Gorseddau Tramway.
The bed of the tramway is extant and runs through the centre of the development area. It enters the area at the north as a raised track bed flanked by mortared stone walls. This is still in use as a public footpath. It then passes through a shallow cutting. The bed of the railway is 4m wide and the sides of the cutting are sloping rock faces. Beyond this, the tramway is visible as a terrace, initially cut into the rock at the north before being partially blocked by a field wall. It can then be traced as a grass-grown terrace in improved pasture before being lost in the school grounds to the east of the development.

The turnpike road
An indication of the line of the road is given on a semi-diagrammatic plan of the railway from Porthmadog to Llidiart Yspytty of 1848 (fig 2). It is also clearly marked on the Penmorfa tithe map of 1840 (copy in Caernarfon Record Office). The majority of the road is still visible. It can be traced up the slope from Glanmorfa Terrace to the top of Lyddiart Yspytty as a 5 to 6m wide grass-covered terrace above a dry stone revetment. The revetment wall is now partially collapsed in places. The line of the road at the top of the slope is shown running just to the north of the old quarry on the OS map of 1887. The quarry has since been filled in and a short stretch of the road can no longer be traced. The

road and the tramway must have run side by side for a few metres at the north of the quarry before diverging close to the eastern end of the shallow railway cutting. They must have run through a very narrow corridor and this may explain why the turnpike was rebuilt on the alignment of the present road in 1845. The line of the earlier turnpike is currently marked in the east of the development area by a track running to the south of a disused agricultural building and then as an access to the school. It should also be noted that it is probable, given the presence of the Roman bath house (see GAT Report 519), that a Roman road runs through the study area, and the line of the turnpike is a possible route for this, being the most obvious access between the former coastline and the cliffs.

The rock cut channel

A ditch, much overgrown by vegetation, is visible a few metres down -slope of the turnpike in the western part of the development area. Closer inspection shows this to be a well-engineered rock-cut feature. It consists of a 3m to 3.5m wide terrace cut into the slope, with a 1.2m wide earth and stone bank on the outer edge of the terrace for most of its length and a 2m wide channel. A stone capped drain, apparently leading from the western end of the channel can be traced south across the field. The eastern end of the feature is relatively well defined but heavily overgrown. It appears to start on a natural shelf below the turnpike road. This area is very overgrown and there has been some erosion of the slope above the shelf. The turnpike runs above an earth and stone bank at this point. A 2. 2m wide gate with extant gateposts leads from the road to the shelf but no further structures are visible. The function of the channel is not entirely clear, but there may have been other, now lost or obscured, structures associated with it. It is too narrow to be an incline and in its present form, with an outer bank, it appears to be a watercourse. It is rock cut and is thus likely to be associated with the ironstone mine and quarry as opposed to being of agricultural origin. The 1887 25-inch OS map shows a building at the bottom of the channel, close to the current stone capped drain. It is possible that the feature was providing water for industrial use in this building, probably as a power source for machinery. Unfortunately, there is no sign of a water source at the upper end of the channel. The nearest sources of water are several hundred metres to the east and west and there are no extant leats. It is possible that some kind of industrial process connected with the mine was carried out on the natural shelf at the top of the channel, the gate indicates that access was necessary. The position of the gate a few metres away from a fairly steep drop suggests that it was not for agricultural use. In conclusion, we do not have enough information to assign a definite function to the channel but it appears to be a leat or drain, and may have been used to supply water to the former building next to Glanmorfa Terrace, or as a drain to take surplus water away.

4.2 Evaluation results

Each trench is described separately. Archaeological deposits are numbered within rounded brackets, and archaeological cuts within square brackets. The location of the trenches is shown on fig 7.

Trench 1

Trench 1 measured 8.00m x 3.25m (l x w) and was located in the north-east corner of the evaluation area in an attempt to locate the remains of a building identified on the 1887 Ordnance Survey Map (Figure 3). The trench was orientated east west with an additional “spur” added to examine the rock cut channel and to establish the relationship between the building and the channel.

Trench 1 (Plate 1) was inserted through the topsoil, context (101), to an average depth of 0.25m and exposed in turn natural bedrock and shale: contexts (106) and (107), respectively. No archaeological features were identified, and no evidence was found for the building shown on the OS map. This suggests the structure was built directly onto the bedrock and subsequently demolished.

Trench 1 was extended to the north as a 3.5m long and 1.00m wide trench in an attempt to characterise the rock cut. The channel ran parallel to the pre-1845 turnpike road appearing to terminate at a stone capped drain a couple of metres east of the proposed building.

This trench was inserted to a depth of 0.80m (maximum). A thin layer of topsoil, context (105), was identified, sealing a 0.40m – 0.60m deposit of mid-brown loam; context (104). This context was identified as hillwash, with several large stones providing evidence of high-energy infilling. Context (104) sealed context (103), a 0.20m deep fill of a shallow linear cut, context [102]. Context (103) was a mid-brown loam, with examples of fractured slate, animal bone and post-medieval pottery. It was interpreted as the primary fill of the linear cut. This cut, context [102], was 1.00m wide on an east west

orientation, with steep sloping sides and a flat base, cutting the natural bedrock. It was identified as a continuation of the rock cut channel; albeit narrower and shallower, confirming the channel continued past the stone capped drain, though the latter may have been a later addition. The finds recovered indicated a post-medieval date for the drain.

Trench 2

Trench 2 was located in the north west section of the evaluation area (see fig 7). It measured 8.50m x 1.80m (l x w) and was inserted in attempt to identify the remains of the pre-1845 turnpike road and investigate any evidence for earlier phases.

The trench was inserted through the topsoil, context (201), which measured an average 0.26m in depth. This context sealed context (202), a red-brown deposit of sand-clay-silt, which measured 4.60m in width and 0.70m in depth (maximum). This deposit was provisionally identified as the surface of the turnpike road. It was in fact a thick deposit of colluvium that had build up against the slope of the hillside, sealing orange, shale-rich subsoil, context (203). The turnpike appeared to have been created by terracing context (202) to create a flat tractable surface (see fig's 8 and 9; Plate 3).

Trench 3

Trench 3 was located at the eastern end of the evaluation area, at a point where the natural slope flattened slightly below a rocky outcrop to form a small terrace. It thus lay between the remains of the Gorseddau Tramway to the south and field boundaries to the west and north (fig 7).

The initial trench measured 27.0m x 1.80m (l x w) but this was later extended in width a further 3.0m to examine a number of archaeological features that lay outside the original trench.

Trench 3 was excavated through topsoil, context (301), which measured 0.25m in depth (maximum). This topsoil sealed, at the western end of the trench, a red-brown colluivium, 0.20m thick, which in turn overlay an orange, shale-rich subsoil, contexts (313) and (314), respectively. The subsoil (313) also sealed the extreme western end of context (304), a deposit of small to large sub-angular stones (200mm to 600mm), mixed with a soft mid-brown clay-silt. This layer was eventually revealed as an extensive spread of stones, approximately 8.0m wide.

To investigate and characterise this spread, a 0.50m wide section was excavated through the deposit, exposing a layer of yellow-brown clay-silt, context (303), that contained spreads of charcoal and burnt clay (which in the former case was too ephemeral to be sampled). In response to this evidence, the trench was extended 3.0m to the south. The rubble spread (304) was visible throughout the extension. It was found to overlie structural remains. The first consisted of a curvilinear line of stones (305) at the eastern end of the spread. Interpreted as the remnants of a wall that formed a rough arc running south to southeast, this context comprised several large sub-angular stones 500-800mm in width (see Figure 5; Plate 6). They were not dressed or bonded. This was the only surviving evidence, as the structure appeared to be truncated in all other directions.

The second structural evidence lay some 1.20m to the west of the first, and consisted of a 1.30m long line of sub-rectangular stones, context (312). Smaller in size than the eastern wall (305), this context comprised a more regular set of stones, well laid, rectangular in shape, on average 0.30 x 0.25m in size (l x b) (see fig 10; Plate 7), and was also interpreted as the remnants of a wall running north-south, with a possible east-west return (306) to the north, and another possible return on the south side (i.e. two nearly parallel walls running east-west). These latter were more disturbed but equally well set. No bonding was used at any point. Running parallel to the east west return, 1.40m to the north, was a shorter course of stones, context (306) (see Figure 10). This course was of similar style to context (312), with again no bonding used. These features were not investigated as part of the evaluation, and it is possible that some of the lines of stones would be better interpreted as stone-capped drains, perhaps lying within a structure.

Several sherds of pottery were recovered from the stone rubble (304), that are unglazed, and of two distinct fabrics. Initial inspection would suggest a Roman date for the pottery, though this has to be confirmed by specialist analysis. These, if confirmed Roman, would not necessarily assign a Roman date to the structural remains, as the pottery may have found its way onto the stone spread at any time. Note that part of a Roman tile was found to the south in Trench 4, alongside the Gorseddau tramway.

A modern drain had been cut through the stone rubble (304) at the eastern end of the trench. Sealed by the topsoil (301), this feature comprised a north south linear cut, context [307], 0.50m deep and 0.80m wide, into which was laid a channel of sub angular stones supporting a ceramic drain, contexts (308) and (309) respectively. These contexts were sealed by the back-fill of the drain cut (310) that contained well packed sub-angular stones mixed with clay-silt. The drain can be traced down the slope through Trench 3, terminating in marshland at the base of the slope.

Trench 4

Trench 4 was located c.8.0m south west of Trench 3, along what was identified through map evidence as the nineteenth century Gorseddau Tramway (fig 6). The trench measured 12.70m x 1.80m (l x w). The trench was inserted through the topsoil, context (401), which extended across the trench to a maximum depth of 0.40m. Context (401) sealed (402), a 0.40m deposit of clay-silt with large sub-angular stones (<700mm). It was described as the secondary backfill of a cut, context [404], and was identified as the remnants of the surface of the tramway (see Figure 12). The tramway surface (402) was partly sealed at the southern end of the trench by context (405), a revetment of clay-silt and sub-rounded stones used to support the terracing of the natural slope created by the construction of the tramway bed (402). The tramway bed (402) sealed context (403), a shallow primary fill of cut [404] that was 0.10m thick and comprised a grey gravel deposit (see Plate 9). Two large nails were recovered from this deposit; typical of the type used for railway sleepers.

Context [404] was a wide linear cut, 5.20m in width, which cut both an orange subsoil, context (407) and a yellow sandy subsoil, context (406). The latter context also appeared to seal context (407) within the trench (see fig 13; Plate 8). The cut is interpreted as the creation of a level terrace in sloping ground in order to create the tramway bed.

Recovered finds included a redeposited thirteenth century stamped coin, from context (401), at the northern end of the trench; and a large ceramic sherd recovered from the southern end of the trench at the horizon, between contexts (401) and (406). This sherd comprised a vibrant orange fabric, very soft, and is almost certainly part of a Roman tile. Several smaller pieces within the vicinity appear to be from the same fabric. The source of the tile is most likely to be the Roman bath house situated south-west of the site.

Trench 5

Trench 5 was located at the northeastern end of the evaluation area on a natural shelf (Figure 2). It measured 20.0m x 1.80m. Trench 5 was inserted through topsoil (501), which measured a maximum of 0.10m in depth. This context sealed a red-brown deposit, context (502); 0.15m thick and identified as natural colluvium. This in turn sealed subsoil, orange in colour with shale inclusions, context (503) (see Plate 10).

Cutting into the subsoil (503), towards the western end of the trench, was a very small sub-circular feature, context [505]. Filling this cut was a deposit of humic, dark brown soil, context (504). As it was sealed by (503) and contained charcoal flecking and a burnt stone, it was sampled for further analysis (sample number 1; 50%). No finds were recovered. The cut is interpreted as a post hole.

Trench 6

Trench 6 was located in the same area as Trench 5, inserted at the western end of Trench 5, creating a T-shape trench (Figure 2). It also measured 20.0m x 1.80m and contained contexts similar to those in Trench 5: context (601), topsoil; context (602), colluvium; context (603), an orange subsoil with shale. Context (603) differed slightly in containing patches of natural bedrock. No features were identified (see Plate 11).

5. CONCLUSION AND RECOMMENDATIONS

Sites 12 (Turnpike road), 13 (rock-cut feature) and 18 (building)

The survey identified the line of the rock-cut channel, though it has not proved possible to ascertain a precise function for it (see section 4.1 above). The trial excavations (Trench 1) confirmed that the structure marked on the 1887 map (site 18) had been subsequently demolished, leaving no trace behind, and thus was almost certainly built onto the natural bedrock, and may have been a timber structure, leaving no archaeological trace. There is still no evidence for its function. Trench 1 revealed the

continuation of the rock-cut channel past (or under?) this building, though it did not prove possible to establish the relationship between the two. Finds from the fill of the channel suggest construction within the 19th century.
Evaluation Trench 2 confirmed that the pre-1845 turnpike road had been constructed by terracing the natural colluvium. There was no evidence for a pre-turnpike road, and none for a road of Roman date.
Recommendations: *It is unlikely that further evaluation or excavation will help understand the function of either site 18, the rectangular building, or site 13, the rock cut feature. The impact upon these two is likely to be relatively slight, and the upper north-east end of the leat/drain, which may be of greatest interest, is presently not going to be disturbed. Should clearance or construction take place at this end then a comprehensive watching brief, with time for recording, should be undertaken. A watching brief should also be maintained when the access road cuts through the leat and turnpike road, and time allowed for cleaning and recording a section.*

Site 17 Gorseddau Tramway
A trial trench (no. 4) was excavated across the tramway to gain evidence for its construction and to see if any earlier phases, either road or rail, underlay it. It was revealed that the tramway was constructed by cutting a terrace into the natural subsoil, onto which a quantity of sub-angular stone was used to build a platform that was then reveted by a stone and clay bank on the lower side. No evidence of the rails or sleepers survived, save for a couple of probable sleeper nails that were found in the primary fill of the construction cut. These nails may have been lost during the original building phase. No earlier phases were revealed, so it is unlikely that the tramway was built over an existing roadway or path, as has been suggested, though the evidence may have been destroyed by the tramway construction.
Recommendations: *examination of former tramways by excavation is relatively rare, but usually informative. In this instance there is no indication of sleeper arrangement (either stone blocks or timber). It is recommended that an excavation is conducted along a length of the tramway with a minimum of two additional sections across the tramway.*

Trench 3 Structural remains
Evaluation Trench 3 revealed structural remains underlying a stone spread. These appear to consist of an arc of walling, and a number of other lines of stone on other alignments. The features were not excavated as part of the evaluation, and it is probable that some of the stones represent stone-capped drains and not walls. However, it would appear that more than one phase of construction is present. The existence of several abraded sherds of pottery of possible Roman date within the stone spread (304), sealing the structural evidence, suggests the possibility of Romano-British activity on the site, and the presence of stone-capped drains within a building would be typical of this date. A post-medieval boundary wall formerly lay just to the east of the trench (see fig 3). Though no longer visible on the surface, it may account for part of the stone spread (304), but is too far east to account for the walling found within the trench.
Recommendations: *full excavation of the structural remains.*

Trenches 5 and 6
Evaluation Trenches 5 and 6 were excavated on a natural platform, in the hope of identifying any activity that could have taken advantage of this topography. No discernible activity was identified except for a single feature, possibly a post- or root-hole.
Recommendations: *No specific recommendations are made for this area, though it is recommended a watching brief is undertaken during the initial topsoil removal on the entire site.*

5. SUMMARY OF RECOMMENDATIONS

Recommendations contained within the assessment report (GAT Report 519) still hold for those sites not further examined during the programme of field evaluation. However the majority of these lie within the study area but outside the area proposed for development, and thus no impact will occur.

A list of all sites, categories and mitigation recommendations is given in the table below. Where no impact is to occur the recommendation is for Preservation *in situ*. Sites of higher importance are recommended for detailed recording or full excavation, whereas those considered to be of lesser importance are recommended for basic recording.

Feature number and name	**Impact**	**Category**	**Recommendations for mitigatory measures**
Feature 1 Llidiart Yspytty Principal Adit	None	B	Preservation *in situ*
Feature 2 Llidiart Yspytty Kilns	None	B	Preservation *in situ*
Feature 3 Revetment Wall	None	C	Preservation *in situ*
Feature 4 Blocked adit	None	C	Preservation *in situ*
Feature 5 Line of the 1848 link railway	None	B	Preservation *in situ*
Feature 6 Blocked adit/trial	None	C	Preservation *in situ*
Feature 7 Open workings, partially infilled.	Considerable	C	Basic recording and watching brief
Feature 8 Industrial remains	Considerable	C	Basic recording and watching brief
Feature 9 Road – Caernarvonshire Turnpike Trust (eastern part)	Slight	B	Detailed recording of those parts affected
Feature 10 Link railway	None	B	Excavation and detailed recording
Feature 11 Railway siding or yard	Considerable	C	Detailed recording and Watching brief
Feature 12 Road - Caernarfonshire Turnpike Trust (western part)	Slight	B	Preservation *in situ*. Detailed recording and watching brief for those parts of the site affected by construction
Feature 13 Rock-cut channel	Slight	C	Preservation *in situ*. Detailed recording and watching brief for those parts of the site affected by construction.
Feature 14 Agricultural building		C	Detailed recording
Feature 15 Site of locomotive shed	None	D	None
Feature 16 Site of shed	None	D	None
Feature 17 Gorseddau Tramway		B	Preservation *in situ*. Detailed recording and watching brief for those parts of the site affected by construction.
Feature 18 Building, site of	Considerable	D	Watching brief
Feature 19 Area around Roman bath house	None	E	None
Dry-stone structure in Trench 3	Considerable	B	Full excavation
Development area	Considerable	E	Watching brief

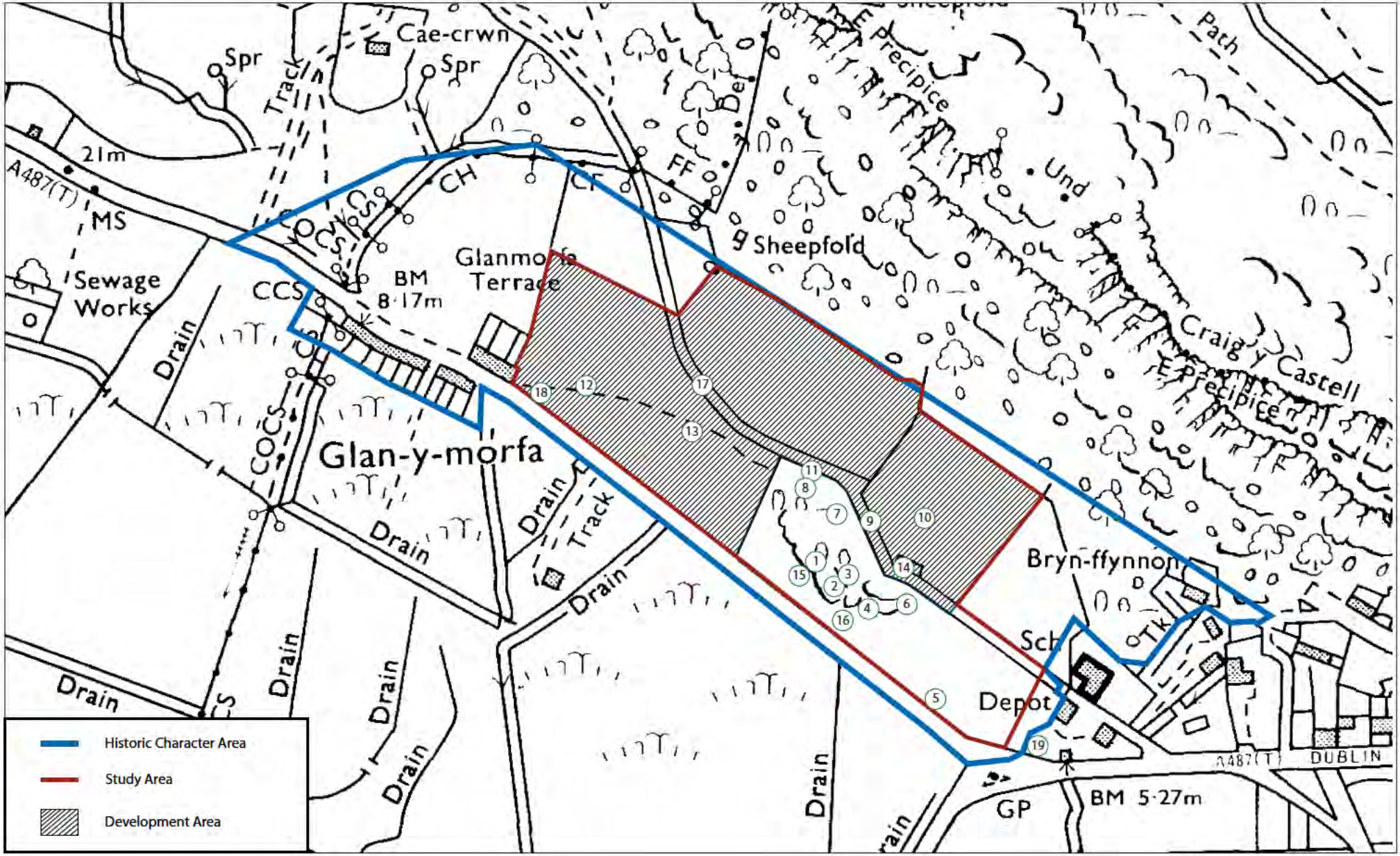

Figure 1. Development Area, Historic Charecter Area and sites of interest.

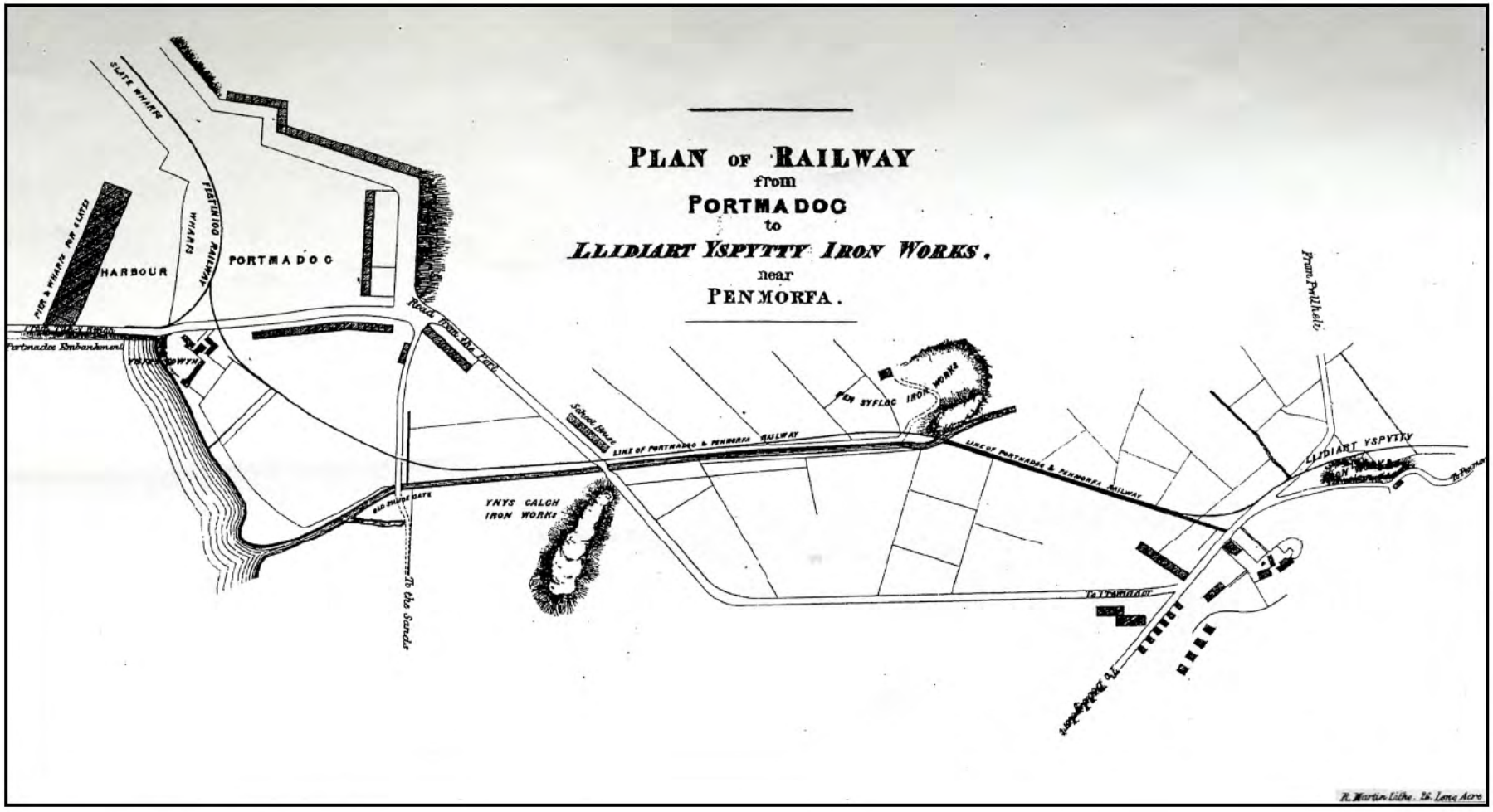

Figure 2. Plan of railway from Porthmadog c. 1848

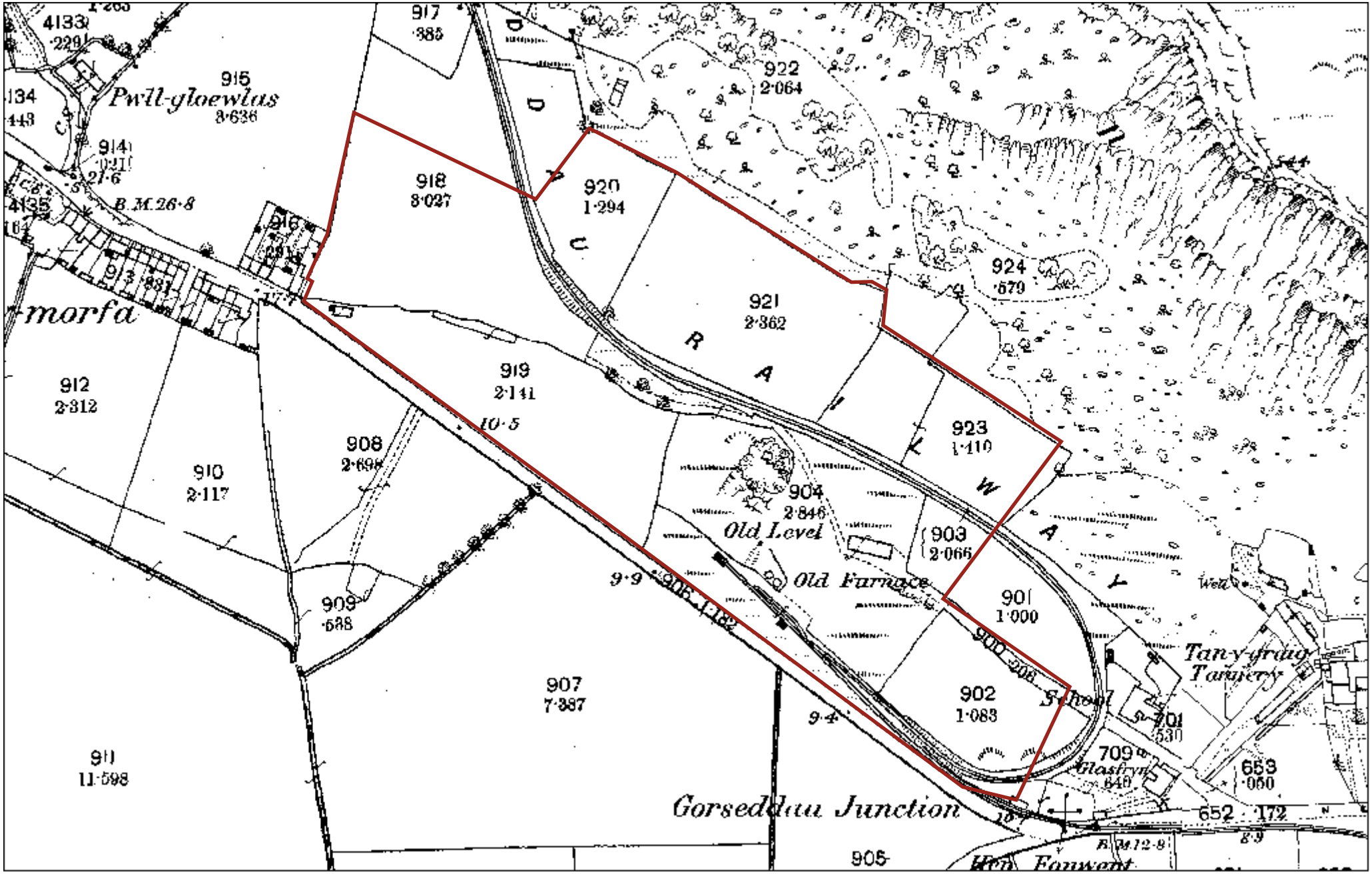

Figure 3. 1887 Caernarvonshire XXXIV.11. Ordnance survey map. (1:2500)

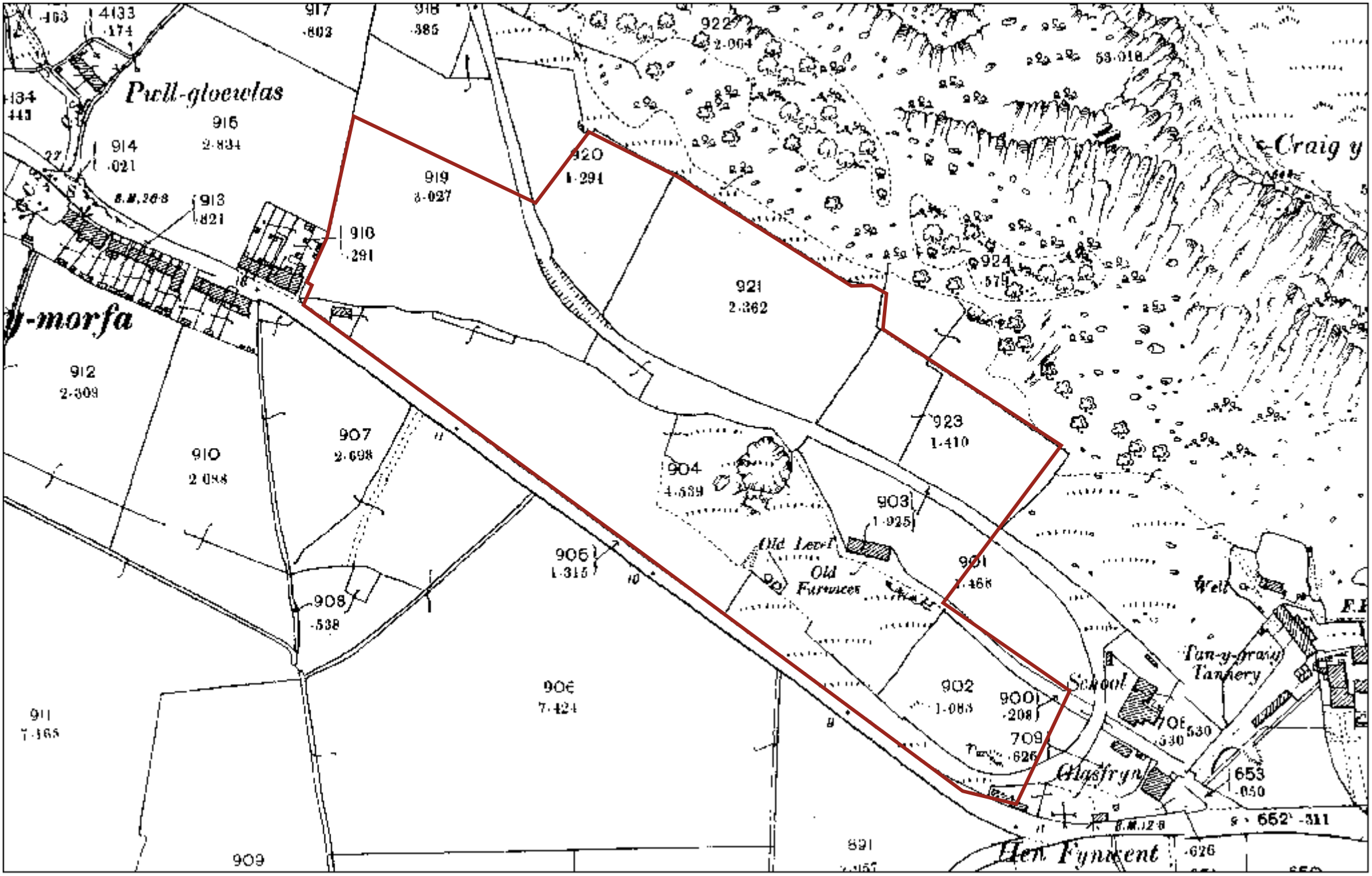

Figure 4. 1900 Caernarvonshire XXXIV.11. Ordnance survey map. (1:2500)

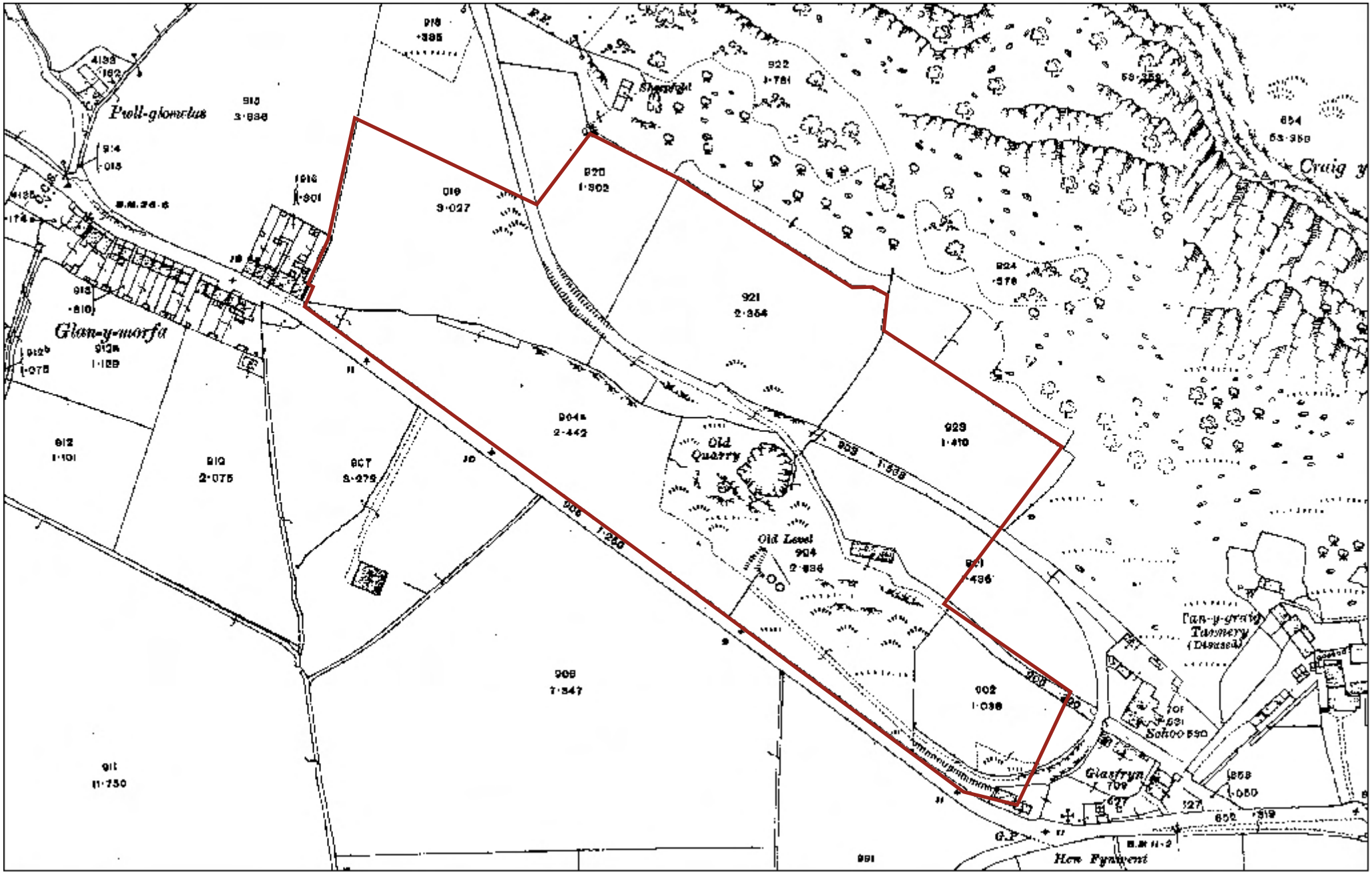

Figure 5. 1915 Caernarvonshire XXXIV.11. Ordnance survey map. (1:2500)

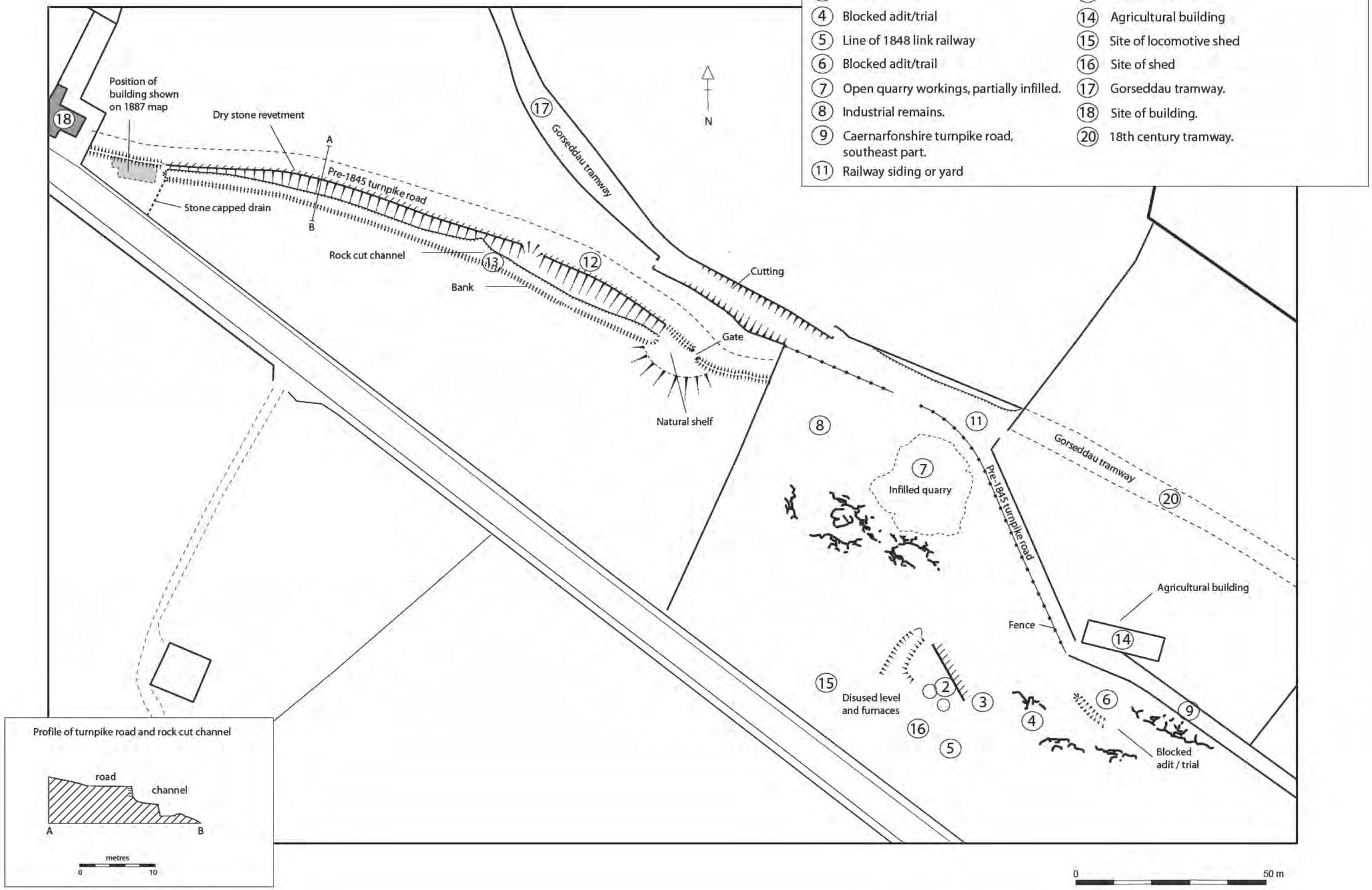

Figure 6. Survey results

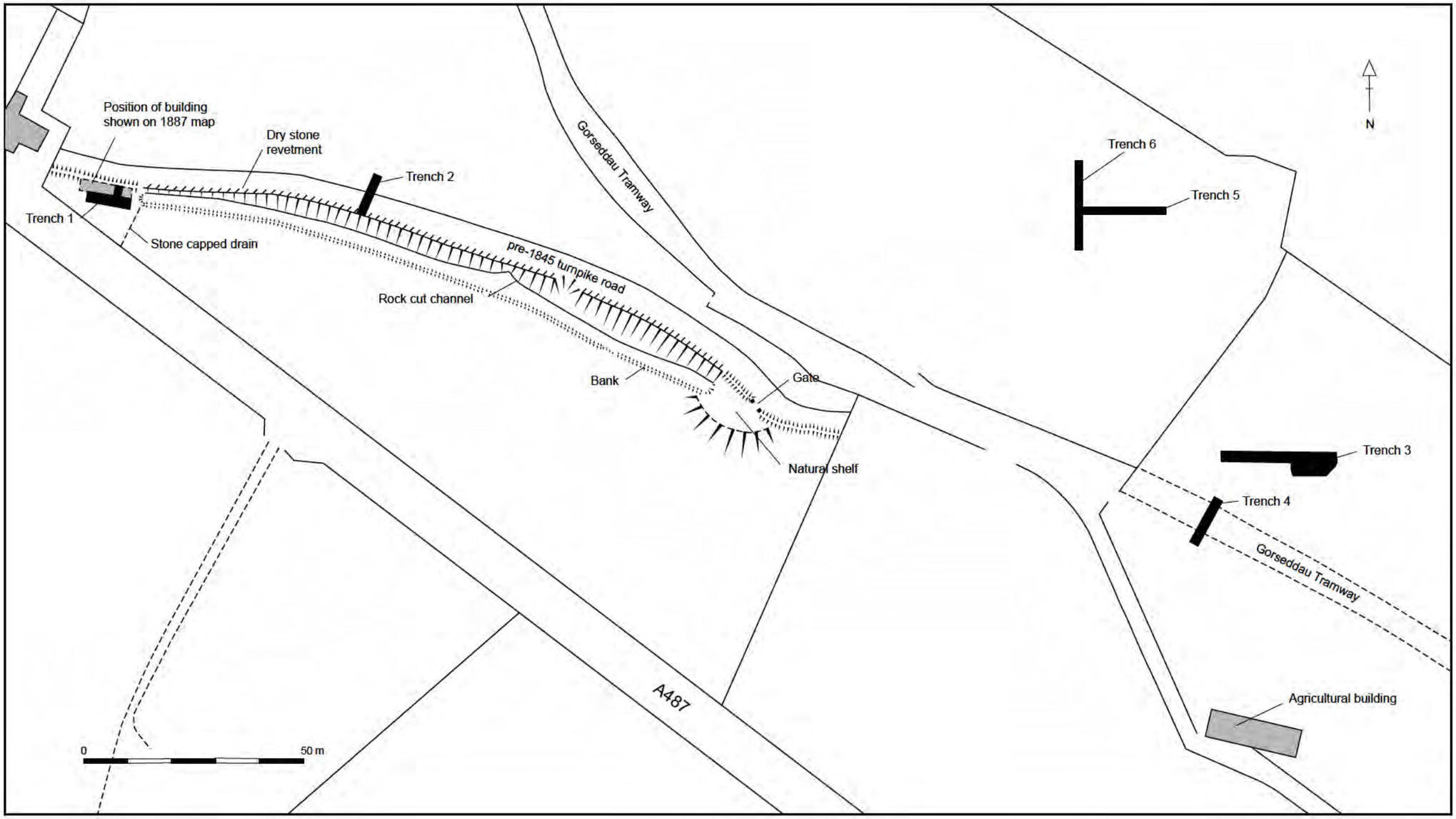

Figure 7. Trench location plan

Figure 9. West facing section of trench 2.

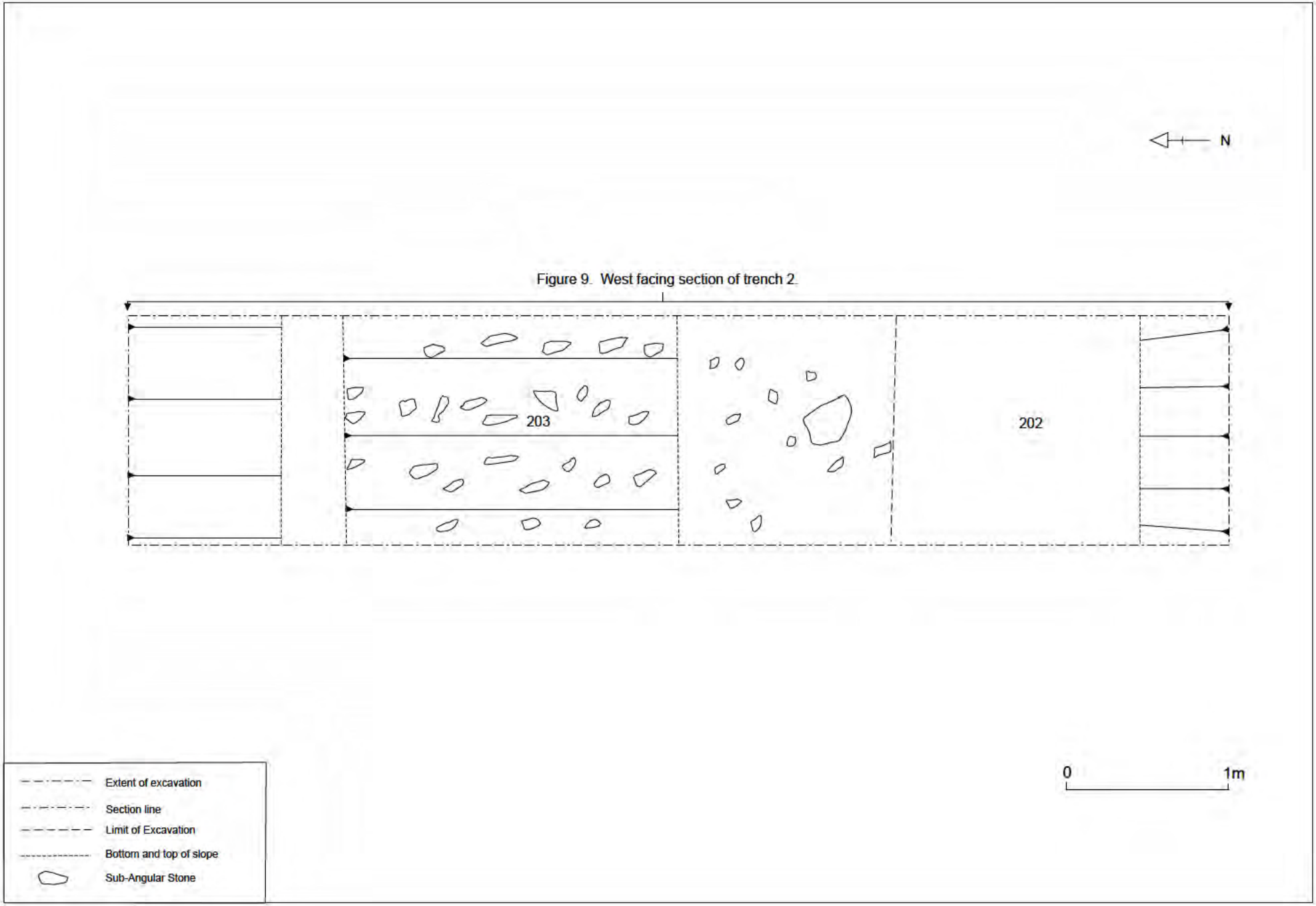

Figure 8. Post excavation plan of trench 2.

Figure 9. West facing section of trench 2.

Figure 11. South facing section of trench 3.

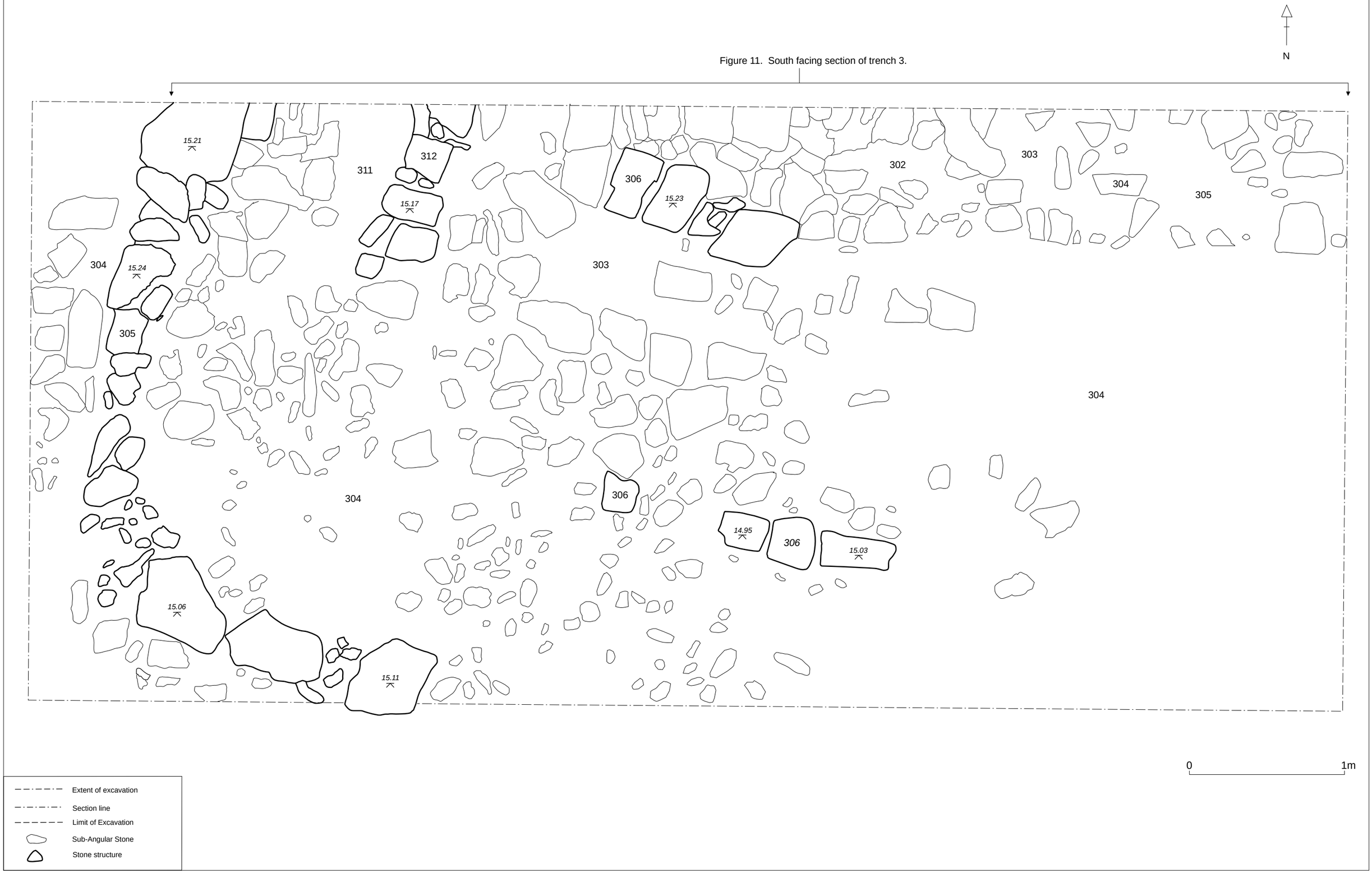

Figure 10. Plan of trench 3.

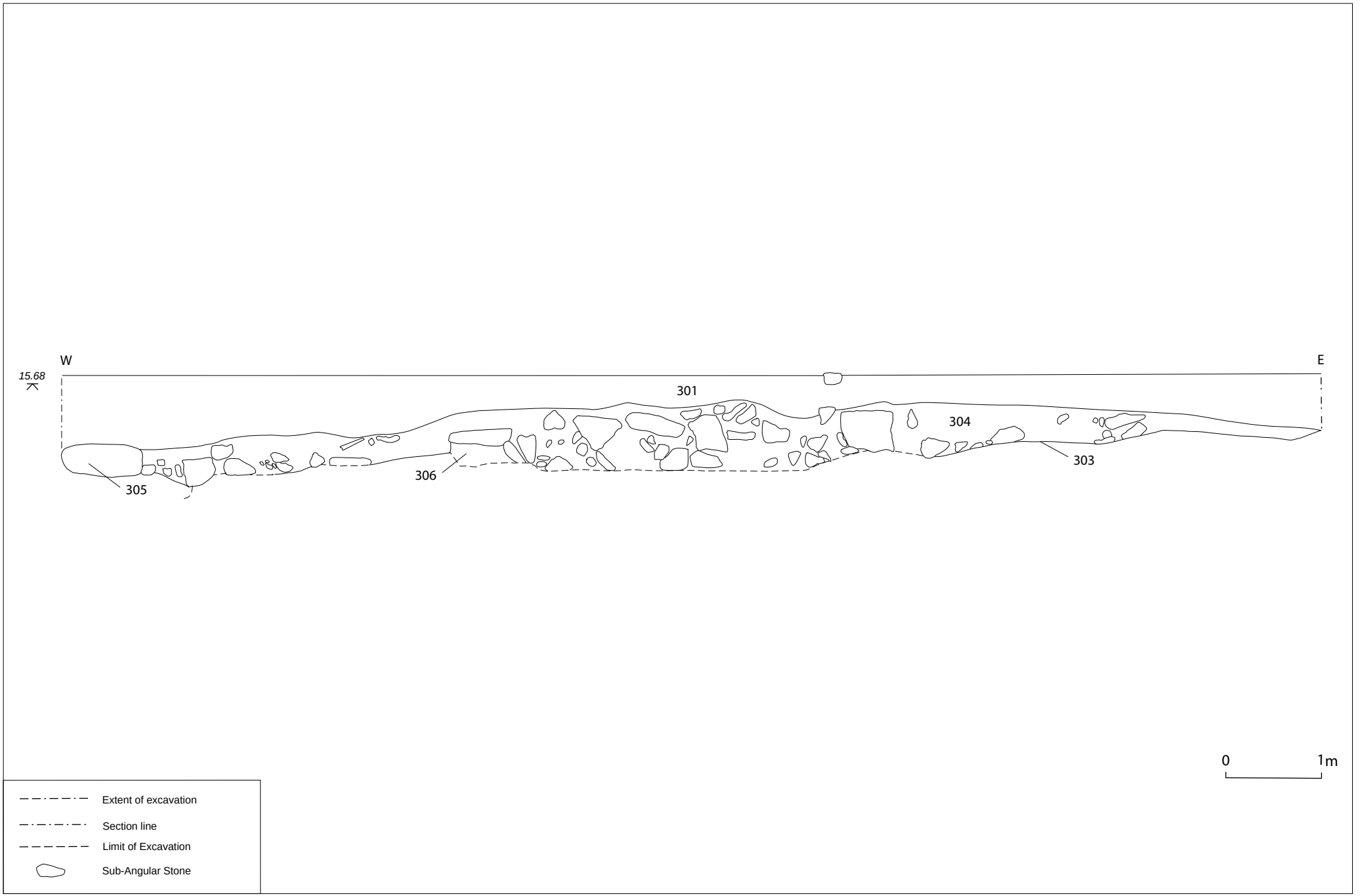

Figure 11. South facing section of trench 3

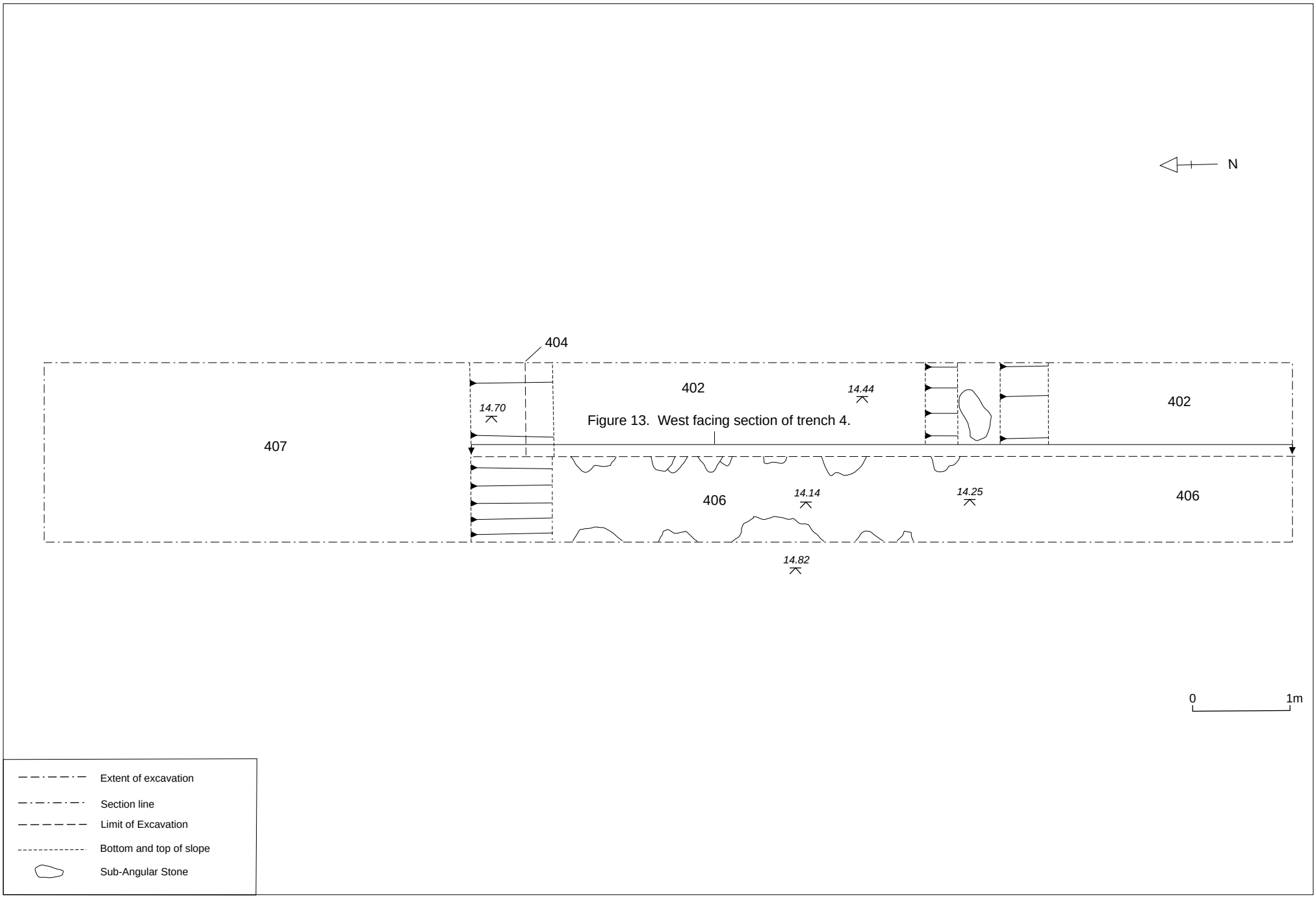

Figure 13. West facing section of trench 4.

Figure 12. Post excavation plan of trench 4.

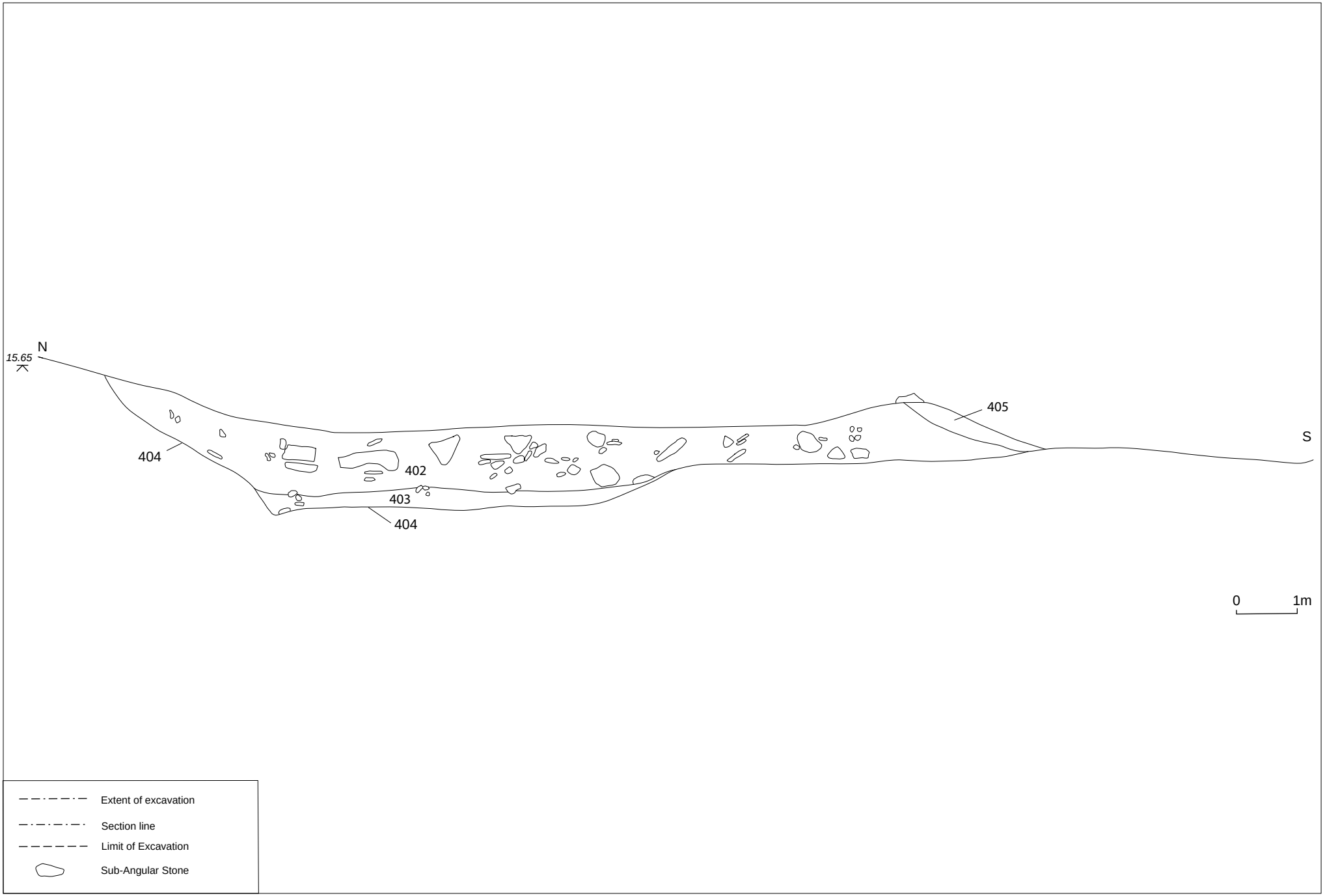

Figure 13. West facing section of trench 4.

Plate 1

Plate 2

Plate 3

Plate 4

Plate 5

Plate 6

Plate 7

Plate 8

Plate 9

Plate 10

Plate 11