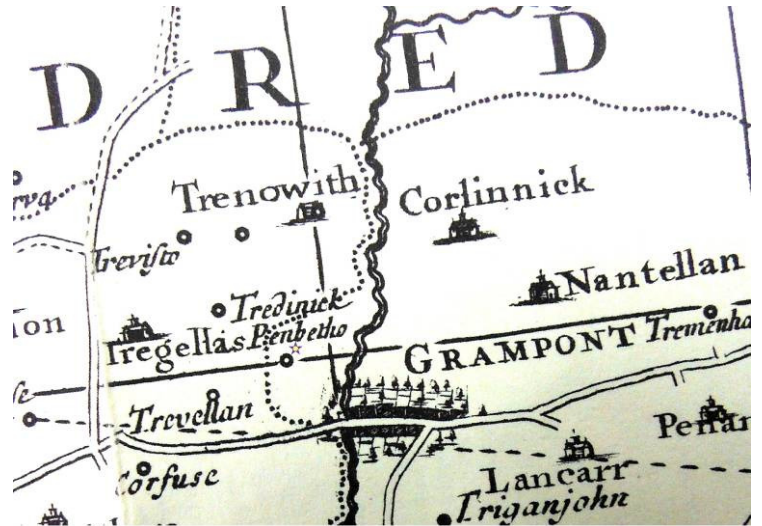


**A Setting Study and Archaeological
Appraisal for a Proposed Wind Turbine
at Penbetha Farm, Grampound,
Cornwall**



ARS Ltd Report 2014/109

November 2014

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Archaeological Research Services Ltd Report 2014/109

OASIS ID: archaeol5-195123

November 2014



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Prepared on behalf of: Earthmill Ltd, for Timothy Dart Ltd

Date of compilation: November 2014

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Planning Reference: N/A

Local Authority: Cornwall Council

EXECUTIVE SUMMARY

ARS Ltd was commissioned by Earthmill on behalf of Tim Dart Ltd to undertake a setting study and Desk Based Archaeological Appraisal for a proposed wind turbine (35m high to hub, 46m high to blade tip) on land at Penbetha Farm, Grampound, Cornwall. Based upon a Zone of Theoretical Visibility to blade tip, a total of 10 Scheduled Monuments, two Registered Parks and Gardens, nine Listed Buildings and three Conservation Areas were assessed within a 5km radius of the proposed turbine.

The archaeological appraisal identified 40 records of archaeological remains and findspots within 1km of the proposed turbine location, including evidence from the Bronze Age, Iron Age, Roman, Medieval and modern periods. The hill upon which the turbine is proposed is the site of a settlement known to have been in existence since at least the 10th century, and the name of the settlement is thought to refer to the location of burials of possible Bronze Age date. The Historic Landscape Type within which the proposals are located is a type within which archaeological remains from all periods have the potential to exist. Consequently it is considered that there is the potential for buried archaeological remains to be present within the proposed development area, although ploughing on the hill is known from at least the late 17th century, and this is likely to have truncated any remains which might survive.

Since the original compilation of the DBA, a geophysical survey has been carried out which identified nineteen anomaly groups of potential archaeological origin, including a possible ring ditch, a Cornish hedge bank, a cluster of pits or post holes, and other features thought to represent land division of potentially more than one phase. The results of the geophysical survey can be used to inform the micro-siting of the trackway to the proposed turbine, and inform consultations with Cornwall Council's Senior Archaeologist regarding any further archaeological evaluation or mitigation.

The setting assessment has concluded that the majority of the heritage assets within the wider landscape would not be impacted by the proposals. There will be a visual change to one of the six key vistas identified in the Character Appraisal for the Conservation Area at Grampound, i.e. the views along Fore Street towards the Town Hall. However, the iconic view towards the Town Hall is from the west, looking uphill towards the cluster of important buildings at the medieval core of the village, including the Market Cross, Manor Houses and St. Nun's Church, and this view would not be affected. The views westwards along Fore Street which would include the turbine are characterised by dominant build lines creating a strong sense of enclosure, and this would provide a counterbalance that would serve to reduce any distracting/competing influence of the turbine in this view. All of the other key vistas which contribute towards the Conservation Area's special interest would remain unaffected.

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1 INTRODUCTION

1.1 Project Background

Earthmill Ltd is to submit a planning application for the erection of a single wind turbine (30.5m high to hub and 48m to blade tip) and associated works at Penbetha Farm, Grampound, Cornwall. There are a number of nationally important heritage assets within 5km of the proposed turbine, including fifteen Scheduled Monuments, nine Grade I Listed Buildings, nine Grade II* Listed Buildings, three Conservation Areas, and the Grade II* Registered Park and Garden at Trewithen. There are a further 216 Grade II Listed Buildings and one Grade II Registered Park and Garden within 5km of the proposed turbine location.

1.2 Site Location

The proposed site for the turbine is within an agricultural field centred at NGR 192982048904, immediately to the north-east of Penbetha Farm, Grampound (Figure 1). The surrounding land is largely agricultural in character, consisting of open farmland associated with scattered farmsteads, and the field within which the turbine is proposed is located on a local high point on the crest of a slightly dome-shaped hill.

The underlying solid geology of the site comprises mudstone and sandstone of the Gramathasco Group, with no overlying superficial deposits present. The soils of the site are classified as belonging to the DENBIGH 1 Soil Association (541k), which are typical brown earths (SSEW 1983a). These soils form over Palaeozoic platy mudstone and siltstone, and are characterised as *'Well drained fine loamy and fine silty soils over rock. Some similar soils with slowly permeable subsoils and slight seasonal waterlogging. Shallow soils and some bare rock locally'*(SSEW 1983b, 9).

2 POLICY AND GUIDANCE

The details below relate specifically to national policy and guidance regarding the setting of cultural heritage assets and its assessment.

2.1 The National Planning Policy Framework (NPPF)

The NPPF (DCLG 2012) is the policy statement which contains the framework for conservation of the historic environment within the planning system and establishes the historic environment as a material consideration within the planning process.

The NPPF makes a number of references to the important contribution that setting can have to the significance of heritage assets, and how this should be addressed within the planning system:



'In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary' (NPPF para. 128).

'Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal' (NPPF para 129).

'When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably Scheduled Monuments, Protected Wreck Sites, Battlefields, Grade I and II Listed Buildings, Grade I and II* Registered Parks and Gardens, and World Heritage Sites, should be wholly exceptional' (NPPF para. 132).*

2.2 Planning Practice Guidance: Conserving and Enhancing the Historic Environment

Updated planning practice guidance to accompany the policies set out in the NPPF was issued by the Government in March 2014 (DCLG 2014). This guidance makes a number of references to the significance of heritage assets, how setting can contribute to this significance, and how assessing if a proposal causes substantial harm is reliant upon assessing impacts to significance.

The term 'significance' is defined in Annex 2: Glossary: *'The Significance (for heritage policy): The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.'*

In paragraph 008, the question 'What is "significance"?' is addressed: *"Significance" in terms of heritage policy is defined in the Glossary of the National Planning Policy Framework. In legislation and designation criteria, the terms 'special architectural or historic interest' of a listed building and the 'national importance' of a scheduled*



monument are used to describe all or part of the identified heritage asset's significance. Some of the more recent designation records are more helpful as they contain a fuller, although not exhaustive, explanation of the significance of the asset.'

In paragraph 009, the question 'Why is 'significance' important in decision-taking?' is addressed: *'Heritage assets may be affected by direct physical change or by change in their setting. Being able to properly assess the nature, extent and importance of the significance of a heritage asset, and the contribution of its setting, is very important to understanding the potential impact and acceptability of development proposals'.*

In paragraph 013, the question 'What is the setting of a heritage asset and how should it be taken into consideration?' is addressed: *A thorough assessment of the impact on setting needs to take into account, and be proportionate to, the significance of the heritage asset under consideration and the degree to which proposed changes enhance or detract from that significance and the ability to appreciate it. Setting is the surroundings in which an asset is experienced, and may therefore be more extensive than its curtilage. All heritage assets have a setting, irrespective of the form in which they survive and whether they are designated or not. The extent and importance of setting is often expressed by reference to visual considerations. Although views of or from an asset will play an important part, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places. For example, buildings that are in close proximity but are not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each. The contribution that setting makes to the significance of the heritage asset does not depend on there being public rights or an ability to access or experience that setting. This will vary over time and according to circumstance. When assessing any application for development which may affect the setting of a heritage asset, local planning authorities may need to consider the implications of cumulative change. They may also need to consider the fact that developments which materially detract from the asset's significance may also damage its economic viability now, or in the future, thereby threatening its ongoing conservation.'*

In paragraph 017, the question 'How to assess if there is substantial harm?' is addressed:

'What matters in assessing if a proposal causes substantial harm is the impact on the significance of the heritage asset. As the National Planning Policy Framework makes clear, significance derives not only from a heritage asset's physical presence, but also from its setting. Whether a proposal causes substantial harm will be a judgment for the decision taker, having regard to the circumstances of the case and the policy in the National Planning Policy Framework. In general terms, substantial harm is a high test, so it may not arise in many cases. For example, in determining whether works to a listed building constitute substantial harm, an important consideration would be whether the adverse impact seriously affects a key element of its special architectural or historic interest. It is the degree of harm to the asset's significance rather than



the scale of the development that is to be assessed. The harm may arise from works to the asset or from development within its setting. While the impact of total destruction is obvious, partial destruction is likely to have a considerable impact but, depending on the circumstances, it may still be less than substantial harm or conceivably not harmful at all, for example, when removing later inappropriate additions to historic buildings which harm their significance. Similarly, works that are moderate or minor in scale are likely to cause less than substantial harm or no harm at all. However, even minor works have the potential to cause substantial harm.'

2.3 Renewable Energy Planning Guidance Note 3: The Development of Onshore Wind Turbines (Cornwall Council 2014)

Cornwall Council has produced a guidance note which outlines the requirements for assessment of onshore wind turbines of various sizes. For 'Small' turbines (26m to 60m in height), the guidance states that an archaeological assessment will be required when archaeological sites recorded on the HER are within 500m of the site. Those in 'Anciently Enclosed Land' with HER sites within 500m will also require a geophysical survey.

The guidance also states that an assessment of the settings of designated assets is required when Listed Buildings, Conservation Areas, the World Heritage Site, Registered Battlefields or Registered Parks and Gardens lie within 4km (25m to tip) or 10km (60m to tip).

2.4 The Setting of Heritage Assets: English Heritage Guidance (2011a)

The EH position statement recommends a 5-stage approach to the assessment of impacts to settings of heritage assets.

- ◆ Step 1: Identifying the heritage assets affected and their settings.
- ◆ Step 2: Assessing whether, how, and to what degree these settings make a contribution to the significance of the heritage asset(s).
- ◆ Step 3: Assessing the effect of the proposed development on the significance of the asset(s).
- ◆ Step 4: Maximising enhancement and minimising harm.
- ◆ Step 5: Making and documenting the decision and monitoring outcomes.

For Step 2, the guidance provides a detailed, but non-exhaustive, checklist of potential attributes of a setting which may help to elucidate its contribution to the significance of an asset; this is reproduced in Table 1 below:



Table 1: Assessing the contribution of setting to significance

Assessing the contribution of setting to significance:	
The asset's physical surroundings	<ul style="list-style-type: none"> ◆ Topography ◆ Other heritage assets (archaeology/buildings/landscapes) ◆ Definition, scale and 'grain' of surrounding streetscape, landscape and spaces ◆ Green spaces, trees and vegetation ◆ History and degree of change over time ◆ Integrity ◆ Issues such as soil chemistry and hydrology
Experience of the asset	<ul style="list-style-type: none"> ◆ Surrounding landscape and town character ◆ Views from, towards, through and across, including the asset ◆ Visual dominance, prominence or role as focal point ◆ Intentional intervisibility with other historic and natural features ◆ Noise, vibration and other pollutants and nuisances ◆ Tranquillity, remoteness, 'wildness' ◆ Sense of enclosure, seclusion, intimacy or privacy ◆ Dynamism and activity ◆ Accessibility, permeability and patterns of movement ◆ Degree of interpretation or promotion to the public ◆ The rarity of comparable survivals of setting
The asset's associative attributes	<ul style="list-style-type: none"> ◆ Associative relationships between heritage assets ◆ Cultural associations ◆ Celebrated artistic representations ◆ Traditions

Similarly for Step 3, the guidance provides a detailed, but non-exhaustive checklist of potential attributes of a development affecting setting which may help to elucidate the implications for the significance of an asset. This is reproduced in Table 2 below:

Table 2: Assessing the effect of the development

Assessing the effect of the development	
Location and siting of the development	<ul style="list-style-type: none"> ◆ Proximity to asset ◆ Extent ◆ Position in relation to landform ◆ Degree to which location will physically or visually isolate asset ◆ Position in relation to key views



<p>The form and appearance of the development</p>	<ul style="list-style-type: none"> ◆ Prominence, dominance, or conspicuousness ◆ Competition with or distraction from the asset ◆ Dimensions, scale and massing ◆ Proportions ◆ Visual permeability ◆ Materials (texture, colour, reflectiveness etc) ◆ Architectural style or design ◆ Introduction of movement or activity ◆ Diurnal or seasonal change
<p>Other effects of the development</p>	<ul style="list-style-type: none"> ◆ Change to built surroundings and spaces ◆ Change to skyline ◆ Noise, odour, vibration, dust etc ◆ Lighting effects and 'light spill' ◆ Change to general character (e.g. suburbanising or industrialising) ◆ Change to public access, use or amenity ◆ Change to land use, land cover, tree cover ◆ Changes to archaeological context, soil chemistry or hydrology ◆ Changes to communications/accessibility/permeability
<p>Permanence of the development</p>	<ul style="list-style-type: none"> ◆ Anticipated lifetime/temporariness ◆ Recurrence ◆ Reversibility
<p>Longer term or consequential effects of the development</p>	<ul style="list-style-type: none"> ◆ Changes to ownership arrangements ◆ Economic and social viability ◆ Communal use and social viability

The checklists presented in Tables 1 and 2 provide a framework for the assessment of impacts to setting which, following a consideration of potential mitigation or enhancement in Step 4, should be clearly documented in Step 5. The guidance states that:

'It is good practice to document each stage of decision-making process in a non-technical way, accessible to non-specialists. This should set out clearly how the setting of each heritage asset affected contributes to its significance and what the anticipated effect of the development, including any mitigation proposals, will be. Despite the wide range of possible variables normally this analysis should focus on a limited number of key attributes of the asset, its setting and the proposed development, in order to avoid undue complexity.' (EH 2011a, 24).

A consultation draft of *Historic Environment Good Practice Advice in Planning. Note 3: The Setting of Heritage Assets* was issued by English Heritage in July 2014, and



although not yet implemented, this document will also be referred to where appropriate in the following assessment.

3 METHODOLOGY

3.1 Information Sources

The following sources of information were consulted to inform this assessment.

- ◆ The Cornwall Historic Environment Record (HER) for information regarding known archaeological remains, National Mapping Project data and Historic Landscape Characterisation (HLC) data.
- ◆ The online National Heritage List for England (NHLE) maintained by English Heritage for information regarding designated assets, as well as their downloadable GIS datasets of Scheduled Monuments, Listed Buildings, Registered Parks and Gardens of Historical Interest, Registered Battlefields, and World Heritage Sites.
- ◆ The Cornwall Studies Library for historic mapping, and other historical documents and literature relevant to the study area.
- ◆ Landmark Envirocheck Report for historical Ordnance Survey mapping.
- ◆ The British Geological Survey onshore digital maps at 1:50 000 scale (DiGMapGB-50 – WMS).
- ◆ The Soil Survey of England and Wales 1:250,000 Soil Map and Legend (SSEW 1983a; SSSEW 1983b).
- ◆ Other relevant books and journals that were identified in the course of the data collection.
- ◆ Site visits to validate the results of the baseline data collection and ZTV and to assess the ground conditions within the site boundary. These visits were undertaken in fine conditions between 6th and 9th October 2014.

3.2 ZTV

In order to eliminate areas of the landscape where there would be no visibility of the proposed turbine, a Zone of Theoretical Visibility (ZTV) was created. Such maps depict the predicted visibility of the development using a 'bare-earth' Digital Terrain Model (DTM), i.e. without any vegetation or buildings depicted, and are therefore indicative of a 'worst case scenario' which will not be a true reflection of the situation in reality. However, a ZTV can be usefully employed at an early stage of a setting assessment to enable assets which are outwith the theoretical viewshed of the development to be omitted from further assessment.

The ZTV was created using Openwind software utilising the Ordnance Survey Landform Panorama 50m contours as a DTM. This ZTV indicated that due to the



nature of the topography of the study area, five Scheduled Monuments, four Grade I Listed Buildings and four Grade II* Listed Buildings within 5km of the proposed turbine location could be omitted from the assessment.

3.3 Scheme of work

The scheme of work follows the staged methodology recommended in *The Setting of Heritage Assets: English Heritage Guidance* (EH 2011a):

3.3.1 Step 1: Identifying the heritage assets affected and their settings.

A ZTV was produced in order to identify which designated assets had the potential to be impacted by the proposed turbine. The settings of these assets were then assessed through a mixture of desk-based research, and wherever possible, site visits.

3.3.2 Step 2: Assessing whether, how, and to what degree these settings make a contribution to the significance of the heritage asset(s)

Step 2 of the assessment was undertaken with reference to the attribute table reproduced in Table 1, professional judgement, and where relevant and available asset descriptions taken from the NHLE or Conservation Area Appraisals.

3.3.3 Step 3: Assessing the effect of the proposed development on the significance of the asset(s)

Step 3 of the assessment was undertaken with reference to observations made during the site visits, the ZTV, and any relevant photomontages that had been produced as part of the LVIA.

3.3.4 Step 4: Maximising enhancement and minimising harm

Step 4 is not relevant to this assessment.

3.3.5 Step 5: Making and documenting the decision and monitoring outcomes

This report documents the decision-making process with regard to the assessment of setting, but the monitoring of outcomes is not relevant to this assessment.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 The Prehistoric Period

Little Lower and Middle Palaeolithic material has been recovered from Cornwall, and the few finds that have come to light are all from the extreme west of the region; likewise there are few Upper Palaeolithic findspots, and these are also distributed towards the extreme south-west of the county (Hosfield *et al.* 2008, 37; 39). The Mesolithic period is far more visible within the archaeological record, and whilst microlith production appears to have been widespread across the county, certain areas were favoured, such as cliff tops along the north coast, the granite uplands of



Bodmin and West Penwith, and lowland sites such as Trevose Head and Poldowrian (Hosfield *et al.* 2008, 55). There are no known sites or findspots dating to the Palaeolithic or Mesolithic periods within the 1km study area, but the possibility that the topographic location of Penbetha on a locally prominent hill overlooking the Fal valley may have been favoured by earlier prehistoric hunting parties should not be discounted.

Earlier Neolithic activity in the region is reflected by the distribution of chambered tombs and hilltop enclosures as well as occasional pits containing ritually deposited artefacts, and whilst the distribution of such evidence belies a preference for prominent hills and distinctive rock outcrops, it is thought that lower-lying areas were becoming increasingly cleared of woodland as the period progressed (Herring 2011, 164-5). The discovery of pits containing Grooved Ware just to the west of the study area at Probus indicates that by the later Neolithic period some lowland areas in the vicinity may have been cleared and cultivated (Herring 2008, 81).

Nevertheless, palaeoenvironmental evidence indicates that there was still considerable woodland cover across the South West region throughout the Neolithic period, but by c.1700 BC open-country species predominated suggesting a substantial increase in cereal production (Wilkinson and Straker 2008, 73). This economic change was accompanied by the introduction of new forms of monumentality, the most prevalent being round barrows which were the focus of funerary and other ritual practice for local communities; there are some 3500 examples known in Cornwall, and they are the most numerous of the prehistoric monument types in the region (Pollard *et al.* 2008, 99). The earliest evidence for prehistoric activity within the study area is two cropmarks thought to be the ring ditches surrounding round barrows at Carvossa (AR19) and Barteliver (AR29). These are both located on a low ridge which descends down to the River Fal, which may have been an important routeway in prehistory, as it was during the historic period.

Place and field name evidence also hints at the locations of now vanished prehistoric monuments within the study area. The field immediately to the east of the aforementioned barrow at AR29 is a fossilized medieval strip field which was known as Longstone Close in 1840, suggesting that this might have been the location of a Neolithic or Early Bronze Age standing stone (AR31). The place name of Penbetha itself is thought to derive from *Pen* meaning 'head, top, end or promontory' (Padel 1985, 177), and *bethow* which is the plural of *beth* or 'grave' (Padel 1985, 20). The toponym 'Penbetha' is therefore thought to denote 'Head of the graves' (Bannister 1871, 119) and this could indicate the presence of prehistoric barrows on this spur, that have since been reduced by subsequent ploughing.

Whilst the evidence from the Neolithic and Early Bronze Age in Cornwall indicates that settlement was mainly concentrated in coastal areas and in the uplands, the later Bronze Age sees a 'filling out' of the settled landscape, and settlement increasingly being concentrated in lowland areas (Christie 1986, 87). It has been suggested that the 'emptying out' of upland commons around 1000 BC and the intensification of settlement in coastal and lowland areas formed the antecedent



landscape signatures of Upland Rough Ground and Anciently Enclosed Land which are still evident in the landscape character of Cornwall today (Herring 2010, 166).

Within the study area, evidence for later prehistoric settlement activity can be found at a number of locations where field systems and enclosures thought to date to this period are visible as cropmarks, and in the wider 5km study area, a number of hilltop enclosures or hillforts evidence more organised regional power structures. It is often difficult to disentangle Iron Age settlement activity from subsequent Romano-British activity by morphology alone, and excavation at some sites such as the enclosure at Carvossa (SM4) attests to the likely continuity of settlement activity at many sites. At the north of the study area at Trevan Wood a 'round' is visible as a cropmark (AR01, and a small settlement or farmstead (AR03) and associated field systems (AR02 and AR04) can be found at Benallick a short distance to the south. On a promontory to the east of these field systems a large ploughed-out univallate round or fort has also been identified (AR05), but a second possible fort within the study area suggested by place-name evidence has now been discounted (AR11).

Further prehistoric field systems have been recorded at Trevolland (AR13 and possibly AR16, although the latter site probably has a largely medieval element), and in the Barteliver there are two enclosures thought to be of prehistoric or Romano-British date (AR22; AR24). There are a number of larger enclosures or forts in the wider landscape around Grampound which are likely to date to the later Iron Age, including the enclosure at Carvossa (SM4) located at the crest of a spur c.1km to the south-west of the proposed turbine location, which appears to have been occupied intensively, and the fort at Golden (SM9) which by contrast has produced little evidence for occupation (Fitzpatrick 2008, 134). These defended enclosures appear to have been located in strategic locations overlooking the Fal, and a further example can be found further upstream at Resugga Castle (SM3).

4.2 The Romano-British Period

It is thought that the Roman conquest had little impact on the every day life of the inhabitants of Cornwall, with local leaders remaining in place and merely acting as clients within the new social hierarchy (Herring 2008, 91). Excavations at Carvossa (SM4) have revealed that the site was intensively occupied during the first three centuries AD, with an extra-mural settlement developing outside the defenses to the east, and it has been suggested that the defended enclosure may have been utilised as a fort by the Roman army. Later in the period a metaled road leading down to the River Fal at Grampound was constructed, possibly fossilising a pre-existing prehistoric routeway.

4.3 The Medieval Period

In the post-Roman period, in the sixth or seventh centuries AD, there was an apparent re-organisation of the landscape and a disjunction with the settlement and field systems of the past. This resulted in the abandonment of the rounds and old field patterns and the construction of new open settlements and field boundaries which paid little heed to the pre-existing systems. The reasons for this shift are



poorly understood, but it has been suggested that it was the increasing influence of the new Christian ideology at a local level that resulted in this apparent break with the past (Herring 2008, 91-92). There are a number of settlements within the study area which are thought to be of early medieval origin due to their pre-English names and which still survive today as isolated farmsteads. The earliest recorded example is Penbetha itself, which is first documented in 969 (AR21), followed by Trevolland in 1194 (AR18), Trevillick in 1216 (AR15) and Tredinnick in 1404 (AR12). Settlements with English and Norman names, and therefore established later in the medieval period, include Benallack which is first documented in 1244 (AR07), Barteliver in 1337 (AR35) and Hallnoweth in 1345 (AR10). There were medieval chapels at Benallack (AR06) Hallnoweth (AR09), and medieval crosses at Trevolland (AR17) and Hallnoweth (AR08).

In the wider landscape around Grampound there are numerous medieval crosses which attest to the influence of the church in the medieval period. Examples include roadside crosses such as the one between Grampound and Creed (SM6), the Nancor Cross (SM7), and the Fair Cross (SM8), and the Trelowthas Cross (SM10), which is no longer in situ and is thought to have stood adjacent to a nearby chapel associated with a medieval manor house. In Grampound, the Market Cross and an adjacent cross shaft (SM5) are at the hub of the settlement, located where the market was held, and also adjacent to the site of a medieval chapel. It is rumoured that a cross base adjacent to the Market Cross, which forms part of the Scheduled Monument, was moved to this location from a position on Old Hill to the south-west of the town (Bane and Oliver 1998, 9).

Unlike the settlements mentioned above which only survive today as isolated farmsteads, Grampound grew to become an important town following the construction of the 'Great Bridge' over the Fal in c.1250 by the Earl of Cornwall, and his subsequent establishment of planned medieval market town which had been granted Borough status by 1297 (CC 2010, 15).

As well as the aforementioned Market Cross (SM5), other surviving medieval elements of the town include the road layout, the widened street where the weekly market was held, the surviving long thin burgage plots set perpendicular to the road, the surviving strip field system surrounding the town (CC 2010, 11). The 16th-17th century Manor House is a later addition, and this became the administrative centre for the town during the later medieval period (LB2).

4.4 The Post-Medieval Period

Little information could be uncovered regarding the later history of the settlement at Penbetha after its 10th century or earlier origins, but it is depicted on Gascoyne's map of Cornwall in 1699 as 'Penbetho' (Figure 3) and is one of the many farms that was mapped by Gascoyne in the late 17th century for the Robrates family of Lanhydrock (Figure 2). The title of this map is '*A scheme of the Tenement call Penbethowe in the parish of Probus, annex to the Mannor of Burngullo*' (Holden *et al.* 2008, 246). The manor and village of Burngullo was one of many estates that belonged to the Robartes family across the county, and is located in the parish of



St. Mewan to the east of St. Austell. The boundaries of the tenement farm are depicted on the estate map as being the River Fal to the east, the course of the road (now the A390) to the south, a minor unnamed watercourse to the west, and field boundaries alone to the north, including the most northerly boundary of the fields in which the turbine is proposed. The modern extant field boundaries are all depicted on this map, although at this time the field was divided into two, with the northern extension being a separate field under meadow called 'Polquary mead'. The main field where the turbine is proposed is depicted as one of four fields on the farm which are under cultivation, and is named 'Polquary'. This field is bounded by the road to Penbetha to its south and western sides, although the road is depicted as leading to the area of woodland named 'The Great Hill' immediately to the south-west of the field, but terminating at this point rather than continuing on downhill to join the road close to the bridge as it does today.

By the time of the Probus Tithe map of 1843 (Figure 4), 'Polquary' and 'Polquary mead' had been amalgamated to form the single field that exists today, and the tithe apportionment names this field as 'Park Warrow', and notes that it was an arable field. The earlier recorded form of the field name is obscure, but the later version may derive from *park* (a field, enclosure) and *guartha* ('summit, upper'), which would be an apt description given its topographic location. This possibility has been identified due to the similar field name 'Park-Warra' being interpreted in this way (Padel 1985, 175).

The extent of Penbetha described in the 1843 Tithe Apportionment is the same as that depicted on the map in the Lanhydrock Atlas, and the field boundaries had changed little by this time. The major change is the extension of the road from Penbetha down to the main road close to the river crossing, and the construction of the tannery (HB03) adjacent to the junction.

The Ordnance Survey mapping presented in Appendix 5 depicts the modern ownership boundary of Penbetha Farm, and comparison with the earlier maps indicates that the landholding has shrunk slightly, and no longer includes any of the land parcels fronting on to the main road at the south, or those between the River Fal and the road at the east, but an additional field to the north has been acquired. This sequence of maps illustrates that within the present farm landholding there has only been two field boundaries removed since the 17th century map of the tenement was produced. Air photo mapping has identified the removed boundary between 'Polquary' and 'Polquary mead' and also a further boundary perpendicular to this which would have bisected 'Polquary' (Figure 5). It is not known whether this was removed before the 17th century map was produced or was a later shortlived boundary which was not depicted on any maps.

The only other changes of note at Penbetha depicted on the Ordnance Survey mapping is the construction of a new bungalow called 'Penbetha' at the northern tip of the landholding at some point between 1962-81, and the re-arrangement of the buildings at Penbetha Farm during the same period. Today the farm complex at Penbetha Farm comprises a cluster of modern farm buildings (with one possible re-



used original wall surviving *in situ*; see Figure 37), and it therefore appears that the historic farm buildings were demolished during this period.

5 SETTING STUDY

This setting study assesses all of those designated heritage assets of the highest significance within 5km of the proposed turbine and that are also within the ZTV. Potential impacts to the setting of the Conservation Area at Grampound will also be discussed. Assets have been divided according to their respective designations, and Assessment Stages 1, 2 and 3 are discussed for each, except where it was possible to omit the asset at Stage 1 as a result of the ground-truthing of the ZTV.

5.1 Scheduled Monuments

5.1.1 SM1 - Round 330m south east of Penhale (NHLE no. 1020752).

Assessment Stage 1

This settlement site is likely to date between the Late Iron Age and early post-Roman period, and is thought to represent a small agricultural hamlet comprising a level oval area enclosed by an earth and stone rampart and outer ditch.

The round is located on private land within an agricultural field c.275m to the south-east of Penhale Farm. As the site was not publically accessible, the setting was assessed from the roadside, c.65m to the east of the monument. The round is located on a local high spot with good all-round visibility of the surrounding landscape. The surrounding landscape is largely rural, agricultural land, interspersed with farm buildings. There are numerous turbines visible from this location, including a small agricultural turbine which is situated immediately outside the bank of the round immediately adjacent to its northern edge.

Assessment Stage 2

The NHLE description for this monument describes how *'Most recorded examples are sited on hillslopes and spurs. Rounds are important as one of the major sources of information on settlement and social organisation of the Iron Age and Roman periods in south west England. Consequently, sites with significant surviving remains will normally be considered to be of national importance'*. It is considered, therefore, that the significance of this monument derives from the *evidential value* of the buried deposits, features and artefacts and ecofacts which are likely to be preserved within the scheduled area, resulting in it possessing *archaeological interest*. Although it is noteworthy that the topographical setting of the site conforms to the norm for this class of monument, there is nothing notable about the topographic setting of this round which contributes to its significance, and neither are there any particular views which are of importance to its understanding or appreciation.



Assessment Stage 3

This asset is located c.4.92 km to the WNW of the proposed turbine location, and it is considered that the proposed turbine would not be visually dominant and would be experienced as part of the wider landscape which already has numerous turbines within it, the nearest being immediately adjacent to the asset. It is concluded therefore that the proposed turbine at Grampound would have a negligible visual impact upon this asset and this would not result in loss or harm to its significance.

5.1.2 SM2 - Round barrow 530m north west of Carnwinnick (NHLE no. 1020751).

This Late Neolithic to Early Bronze Age funerary monument survives as a relatively intact mound, with an infilled ditch.

Assessment Stage 1

This asset is located on private land within an agricultural field which is situated on level ground towards the southern end of a ridge. As the asset is not publically accessible, it was assessed from the roadside, c.150m to the west. The barrow is located a little to the south of the crest of the ridge upon which it is located, and is likely to have good all-round visibility, being located in a prominent location, although views to and from the barrow will be restricted to the south due to it being located immediately adjacent to a mature hedge. The landscape setting is of a predominantly rural character, interspersed with occasional turbines and dispersed farmsteads. A short distance to the south of the hedgerow adjacent to the barrow is an existing single 47m to bladeti turbine which will be dominant in views southwards from the monument (Figure 11).

Assessment Stage 2

It is considered that the significance of this monument derives mainly from the *evidential value* of the buried deposits, features and artefacts and ecofacts which are likely to be preserved within the scheduled area, resulting in it possessing *archaeological interest*. The monument's setting does contribute to this significance to a small degree, as the NHLE entry for this asset notes that '*The siting of the barrow illustrates well the important role of topography in Bronze Age funerary activity*'. However, it is considered that the barrow is sited so as to be a prominent skyline feature when seen from the surrounding landscape, and particularly the lower ground to the south, rather than being sited to obtain views outwards towards the wider landscape. The setting therefore provides a certain *illustrative value* regarding the intentions of the builders of the monument, although it is considered that it is the *evidential value* that is paramount to its significance.

Assessment Stage 3

Whilst it is considered likely that the proposed turbine would be visible from this asset c.2.87km to the south-south-east, it is possible that that these views would be screened by the adjacent hedgerow immediately to the south. Nevertheless, any views of the turbine that would be possible would be caught within the same arc of



view as the extant 47m to bladetip turbine in the field immediately to the south, which already dominate any views in this direction. It should also be noted that the significance of the asset derives to a large degree from its archaeological interest rather than its setting, although as discussed above, its topographic setting does provide a certain *illustrative value* regarding the intentions of the builders. It is concluded that there would be no loss or harm to the significance of this asset as a result of the erection of the proposed turbine, as the topographical setting would remain unchanged, and there would be no detrimental effects upon its appreciation or understanding.

5.1.3 SM3 - Resugga Castle later prehistoric univallate hillfort (NHLE no. 1017685).

This asset comprises a small, slightly embanked hillfort of likely Iron Age date with a single entrance to the north-west which opens out into an outer enclosure which also possesses a north-west entrance.

Assessment Stage 1

This monument is situated in a prominent hilltop location overlooking the confluence of the River Fal and St. Stephen River immediately to the south. It is located on private farmland within a field under pasture, and as the monument is not publicly accessible it was necessary to undertake the assessment from the roadside, c.40m from the western end of the scheduled area. The surrounding landscape has a predominantly rural character, with occasional turbines and dispersed farmsteads punctuating the view. The views to the west and south have an arboreal quality due to the presence of tracts of Ancient Woodland at Trenowth, Barnwoods and Trevan Woods (Figure 12).

Assessment Stage 2

The significance of this asset derives largely from the *evidential value* of the buried deposits, features and artefacts and ecofacts which are likely to be preserved within the scheduled area, resulting in it possessing *archaeological interest*. However, the landscape setting of the monument is also of some significance, in that it is located in a commanding position overlooking the confluence of two watercourses. The NHLE entry notes that '*It has excellent long-distance views over the surrounding countryside, especially to the west*', and it is this topographical setting contributes to the *illustrative historical value* of the asset, in that it bolsters an understanding of the likely function of the site.

Assessment Stage 3

This asset is located c.2.3km to the north-east of the proposed turbine location, and whilst the 'bare earth' ZTV indicates that both the bladetips and hub of the turbine would be visible from within the scheduled area, the dense Ancient Woodland of Trenowth Wood which crowns the nearby ridge to the south-west would provide screening, especially during the summer months. The ramparts of the earthwork are c.3m in height (Weatherhill 2000, 120) and it is possible that this could also screen views towards the turbine from within the scheduled area, also this could not be



confirmed by a site visit. Nevertheless, even if views of the proposed turbine blade tips were possible above the ramparts and treeline, it is considered that this would not result in a loss of significance to the asset, as this derives largely from the *archaeological interest* provided by its *evidential value*. The minor contribution of setting to the significance of the monument would not be harmed by the introduction of a single turbine to the skyline which is unlikely to be visible.

5.1.4 SM4 - Prehistoric and Roman settlement at Carvossa (NHLE no. 1016890).

The settlement site at Carvossa comprises a defended site thought to be a univallate enclosure of later prehistoric origin, which saw continued occupation during the Romano-British period, and the development of an extra mural settlement enclosure developed on its eastern side. As such, the site is a rare example in Cornwall of a settlement which saw continued occupation from the Iron Age and into the Roman period.

Assessment Stage 1

This monument is located on a relatively low-lying ridge which slopes gently down to the River Fal to the east. A well constructed road of Roman date has been identified which runs from a causeway through the eastern defences in a south-easterly direction down to a probable crossing point over the River Fal. The scheduled area comprises the whole of one field, and part of a second field immediately to its south-east where the extra mural settlement has been identified by geophysical survey.

As the scheduled area is private farmland, it was necessary to assess its setting from the public footpath which skirts its northern edge, and it was not possible to see into the enclosure due to the adjacent Cornish hedge and the surviving ramparts of the enclosure beyond. The northern ramparts of the defended enclosure are the most impressive surviving elements, and these are up to 2.7m high (Weatherhill 2000, 45).

Assessment Stage 2

Once again, it needs to be stated at the outset that the significance of this asset resides largely in the *evidential value* it holds, and its attendant *archaeological interest*. The NHLE entry for this asset states that *'the monument at Carvossa is known from excavation and geophysical survey to contain extensive archaeological material both within its enclosure and to the east of its defences, including some in a well preserved and waterlogged condition. It will provide information on the relationship between Roman and native Iron Age populations in the South West at a crucial time in their development and its extramural settlement has the potential to contribute further to these studies'*.

The topographical setting of the asset does contribute to its *illustrative historic value* in that its proximity to the putative crossing over the River Fal helps to contribute to an understanding and appreciation of its function; however it is concluded that the landscape setting of this asset provides only a minor contribution to its significance.



Assessment Stage 3

The proposed turbine would be located c.1.1km to the north-east of the monument, and from within much of the scheduled area it is considered likely that views towards this location would be screened by the surviving ramparts, which survive up to 2.7m high on the northern side and are crowned by trees. Nevertheless, views from the trackway immediately to the north of the scheduled area indicate that the proposed turbine, if visible, would be seen in the same narrow arc of view as the extant modern farm buildings at Penbetha Farm, and in the same general direction as the two turbines that were being constructed at Garlenick at the time of the site visit, and also the consented turbine at Barteliver Farm (Figure 13; MLA 2014, Viewpoint 08). This particular view will therefore already contain a discrete cluster of turbines, and it is concluded that there would be no loss of significance to this asset as a result of the construction of the additional turbine at Penbetha Farm, as setting contributes little to this significance, and it is the spatial connection with the river crossing to the north-west which is of importance in this regard.

5.1.5 SM5 - Market Cross and cross base immediately south west of St Nun's Church (NHLE no. 1021003).

This monument comprises a standing cross of 15th century type, and also an adjacent cross base of similar date. The Market Cross is thought to be associated with the site of an adjacent medieval chapel, and which became the focus for market trading. The smaller cross base may have been moved to this location from its former position on Old Hill (Bane and Oliver 1998, 9).

Assessment Stage 1

These monuments are located by the roadside at the junction of Fore Street and Pepo Lane, on a slightly raised area immediately adjacent to St. Nun's Church and the Town Hall. The setting is closely bound up with the streetscape of Grampound, and specifically that of the focal point of the settlement. Key views of the cross are from the approach along Fore Street from the lower ground to the west (Figure 14), as it is hidden from view due to the screening effect of the Town Hall as one approaches from the east. Further more detailed discussion of the setting of this monument at the core of the village is provided in Section 5.4.1 below in the discussion of the Conservation Area.

Assessment Stage 2

The significance of these monuments resides to a large degree in the *illustrative historic* and *communal* values medieval crosses provide as symbols of religious expression and as foci for preaching, public proclamation, procession as well as mercantile activities.

The setting of the Market Cross and cross base contributes to their significance due to their location at the focal point of the settlement, being formerly part of a religious complex with the medieval chapel and later church, and becoming the focal



point for economic and municipal activity of the local community through influencing the location of the market Town Hall.

Assessment Stage 3

The proposed turbine would be located c.850m to the north-west of the scheduled area, but it is likely that it would not be visible from within the scheduled area itself due to the screening afforded by the intervening buildings on Fore Street. The key views towards the cross are on the approach from the west, and the turbine would not be caught within such views, but it is possible that when the crosses first come into view as one approaches from the east, the turbine would be visible on the skyline when viewed from the southern pavement of Fore Street. This is discussed in more detail in section 5.4.1 below.

5.1.6 SM6 - Medieval wayside cross base on Creed Hill, 400m south of Grampound (NHLE no. 1007962).

This monument comprises a cross base with a height of 0.54m which is located by the roadside on Creed Hill, and is thought to date to the 15th century.

Assessment Stage 1

This asset is located immediately adjacent to Creed Lane on the north-facing slope of Creed Hill. A mature hedgerow screens views to the east, but views are possible from this location to the west and north where the skyline is visible in the middle distance. Looking northwards along Creed Lane, the hill upon which Penbetha Farm is located is visible (Figure 15).

Assessment Stage 2

The significance of this asset resides to a large degree in the *illustrative historic* and *communal* values medieval wayside crosses provide as symbols of religious expression as well as waymarkers along routes linking religious centres for funeral procession or long distance pilgrimage routes. The setting of the asset contributes to the illustrative historic value in that it is located on '*an important route linking two neighbouring parish churches and two major medieval towns, demonstrating well the major function and disposition of wayside crosses and the longevity of many routes still in use. This monument also forms an integral part of an unusual grouping of such later medieval crosses in this area*' (NHLE entry).

Assessment Stage 3

It is likely that the proposed turbine would be visible on the skyline c.1.14km to the north of the cross base as one approaches it from the south. Whilst this would introduce a new modern vertical element to the landscape within which the asset is experienced, it is not considered that this would result in a loss of significance, as the contribution that setting makes to the significance of the asset derives from its location on the routeway between two parish churches and the group value of the other nearby examples. As none of these elements are intervisible, there would be



no loss of significance as a result of the addition of the turbine into this particular view to the north.

5.1.7 SM7 - Nancor Cross, 400m north west of Nancor (NHLE no. 1016284).

This wayside cross is situated at the junction between a minor road and the main medieval routeway linking St. Austell with Grampound and Truro, and is thought to have been erected by the Rector of Creed from 1423 to 1447.

Assessment Stage 1

This cross is located towards the brow of a hill to the east of Grampound, and appears to have been placed to be seen against the skyline as one climbs the hill towards it from the east. From the vicinity of the junction where the cross is located, views towards the location of the proposed turbine at Penbetha Farm c. 1.5km to the north-west are screened by the trees that line the northern side of the road (Figure 16). Even during the winter when the trees have shed their leaves, it is still considered likely that this band of trees would have provided substantial screening of views in this direction, and it is therefore considered that there would be no impacts to the setting of the cross as a result of the erection of the turbine, and consequently it was not assessed further.

5.1.8 SM8 – Fair Cross, 420m WNW of Tregidgeo Farm (NHLE no. 1010843).

This wayside cross is situated beside a minor road which was the early route from Tregony to St. Austell, and like the cross at SM7 discussed above, is thought to have been erected by the Rector of Creed from 1423 to 1447.

Assessment Stage 1

This asset is located immediately adjacent to the road, set back approximately 2m and very close to the hedge, and adjacent to a modern road sign. This asset is not visible from afar, but is only experienced as one approaches along the road from the west or east, and would only come into view when one is relatively close (Figure 17). The hedges that line the road largely prevent views to the landscape beyond in the vicinity of the cross, and although glimpsed views are possible above the hedgeline, the line of sight is effectively funnelled along the routeway as one passes the cross.

Assessment Stage 2

As with the aforementioned wayside crosses, the significance of this asset resides to a large degree in the *illustrative historic* and *communal* values medieval wayside crosses provide as symbols of religious expression as well as waymarkers along routes linking religious centres for funeral procession or long distance pilgrimage. The setting of the asset contributes to the *illustrative historic value* in that it helps to exemplify how the *'relationship between wayside crosses and early thoroughfares is shown at a local level by the cross's location on a route within the parish to the church at Creed. This monument forms an integral part of an unusual grouping of such later medieval wayside crosses in this area'* (NHLE entry). As such, the setting contributes to this significance in that it is the close spatial relationship with the



routeway that is important, whilst views to the wider landscape are of little consequence.

Assessment Stage 3

The location of this asset is such that it barely falls within the ZTV for the turbine, and only the bladetips would theoretically be visible from the roadway. In reality it is likely that the adjacent hedgerow and more distant vegetation would screen views of the turbine blades more than 3km to the north-east. Moreover, the location of the turbine would not be on the line of sight when travelling along the road, and it is considered that there would be either no impact or a negligible visual change which would not result in any loss or harm to the significance of this asset.

5.1.9 SM9 - Golden Camp hillfort (NHLE no. 1016889).

This asset comprises a large univallate hillfort thought to be of Iron Age date, which has good preservation of much of its defensive earthworks. It is thought that a gap in the ramparts at the west is the original entrance.

Assessment Stage 1

This asset is located on private farmland and consequently it was not possible to gain access as part of this assessment. The hillfort is located on a south facing slope on a ridge overlooking the River Fal, with the northern ramparts of the fort running along the crest of the ridge upon which it is located. This suggests that it may have been constructed in this strategic location with views southwards along the Fal which was tidal as far as the Grampound area as late as the medieval period (Bane and Oliver 1998, 14).

Assessment Stage 2

The significance of this asset derives largely from the *evidential value* of the buried deposits, features and artefacts and ecofacts which are likely to be preserved within the scheduled area, resulting in it possessing *archaeological interest*. However, the landscape setting of the monument is also of some significance, in that it is located in a commanding position overlooking the River Fal. The NHLE entry notes that '*In view of the rarity of large univallate hillforts and their importance in understanding the organisation and regional structure of Iron Age society, all examples with surviving archaeological remains are believed to be of national importance.*' This highlights that the significance of the asset resides to a large degree in its *evidential value*, and whilst its topographical setting does contribute to *the illustrative historical value* of the asset, this resides in the proximity of the monument to the river and the southerly prospect of the landform.

Assessment Stage 3

The south-facing prospect of this hillfort results in less than half of its interior being located within the ZTV for the proposed turbine. It should also be noted that the earthworks of the rampart survive to an average height of 1.5m, and the best



survival is along the northern side of the fort. This rampart is also topped with mature trees, and therefore it is likely that the combined screening effect of the rampart and trees would restrict or potentially prevent views northward towards the proposed turbine. Even if glimpses of the turbine were possible from within the scheduled area, this would only be possible from a relatively small area, and the key vistas from within the earthwork (southwards along the Fal valley, or east-west into or out of the entrance) would not be effected. It is also possible that this earthwork was more of a symbol of power rather than an inhabited space, as there is scant evidence for settlement activity within the ramparts (Fitzpatrick 2008, 134). In this case it would be views towards the earthwork from the Fal valley to the south that were important, and this area is outwith the ZTV for the turbine. Consequently it is concluded that there would be no harm to or loss of significance to this asset as a result of the erection of the proposed turbine.

5.1.10 SM10 - Standing cross 200m south of Trelowthas (NHLE no. 1020104).

This standing cross of medieval date is located on level ground on a ridge to the south-west of Probus, adjacent to the lane running northwards towards the site of the former manor house at Trelowthas. According to the HER entry for this asset, it is not *in situ*, but was moved to this location in about 1945 after apparently being used as a rubbing stone and well cover.

Assessment Stage 1

This asset is located c.35m to the north of the busy A390 directly opposite and facing a late 20th century bungalow called Penmenth. It is enclosed by a garden wall immediately to the south, and bushes immediately to the east which help to screen of any long distance views in this direction (Figure 18).

Assessment Stage 2

As this asset is not *in situ*, and is adjacent to modern visual intrusions such as the bungalow opposite and the adjacent dual carriageway of the A390, it is concluded that setting does not contribute to the significance of this asset, as this derives from the *illustrative historical value* of the design of the cross, which is highlighted in the NHLE entry for the asset: *'The fabric and the regular rectangular shape are unusual, and illustrate well the range of materials and forms used for medieval crosses'*.

Assessment Stage 3

The ZTV indicates that only the bladetips would theoretically be visible from this location, but in reality the enclosed nature of the immediate surroundings of the cross would be likely to screen all but rare glimpses of the bladetips, which at almost 5km distant would be barely noticeable. It is therefore concluded that there would be no loss of significance to the asset as a result or the erection of the proposed turbine.



5.2 Registered Parks and Gardens

5.2.1 PG1 - Trewithen (Grade II* Registered Park and Garden: NHLE no. 1000510) and associated Listed Buildings

Trewithen is an 84 ha park containing c.6ha of gardens and 74 ha of parkland, containing three Grade I Listed Buildings, one Grade II* Listed Buildings, and eight Grade II Listed Buildings. The principal building is the Grade I Listed Trewithen House (LB4), which dates to the late 17th century. The house was improved in the 1720s and from the 1730s the pleasure grounds and park were planted and improved.

Assessment Stage 1

The park and gardens were closed at the time of the assessment and therefore it was only possible to enter the site by the eastern entrance and visit the nurseries, which were open. Nevertheless, this brief visit was sufficient to ground-truth the ZTV.

The NHLE entry for this asset states that *'The site is undulating, with the house standing on a level area towards its centre from which the ground drops away to the east, south, and south-west. There are extensive views south and south-west from the pleasure grounds and park, which are framed by woodland c.270m south-east of the house and outside the registered site; specimen trees c.270m east-south-east of the house and outside the registered site are also prominent in views south-east from the park. From the north entrance to the site there are wide views north across adjacent agricultural land'*.

It is clear from this description, and from the orientation of Trewithen House itself, that the park and gardens were landscaped so as to appreciate the key vista to the south, and the wide views from the north entrance are also important. The north-eastern boundary of the park is screened by a belt of trees which prevents any views of the wider landscape in this direction (Figure 19). This shelter belt is between 25m and 60m in width, and therefore even during the winter months when the leaves are off, the screening effect would prevent any views towards the location of the proposed turbine at Penbetha Farm from the Listed Buildings and pleasure grounds. The three Grade I Listed Buildings that are central to the park and garden, Trewithen House (LB4), the two Pavilions to the north (LB3 and LB5), are further screened by the trees immediately to the north-west which are likely to have been planted to screen views of Trewithen Park Farm, some 200m to the north-west.

It is concluded that it is unlikely that there would be any views of the proposed turbine from the vicinity of the Listed Buildings or pleasure grounds at the Registered Park and Garden at Trewithen, and whilst it is possible that glimpsed views could be had from the more open areas of the parkland, this would not effect any of the important designed views. Furthermore the more distant views to the north are not in the direction of the turbine (Figure 20). Consequently this asset and the buildings within it have been omitted from further assessment.



5.2.2 PG2 - Trewarthenick (Grade II Registered Park and Garden: NHLE no. 1000658) and associated Listed Buildings

Assessment Stage 1

This 75 ha site is almost wholly outwith the ZTV, and there is only a very small area towards the north of the registered area from which it would theoretically be possible to see the proposed turbine at Penbetha Farm. This small area, c.3.75km to the south-west of the proposed turbine exclusively comprises dense woodland, where no views towards the turbine would be possible, and thus this asset is omitted from further assessment.

5.3 Listed Buildings

There are 234 Listed Buildings within the 5km study area, 127 of which are located within the ZTV. The vast majority (117) of these is listed at Grade II, and it is considered that their significance derives from their regional architectural merit or rarity (i.e. their *design value*) and it is considered that setting would contribute little or nothing to their significance. Moreover, a large majority of these buildings are private residences which it would not be feasible to gain access to for this study. Consequently the following discussion will only focus upon those buildings which are considered to be 'assets of the highest significance' in terms of the NPPF, that is those listed at Grade I and II*. Nevertheless, a general discussion of the setting of Grampound Conservation Area is provided in section 5.4.1 below, and this contains 52 Listed Buildings, 51 of which are Grade II, and it is considered that the settings of these buildings is the Conservation Area itself.

5.3.1 LB1 - Penans Farmhouse (Grade II Listed Building: NHLE no. 1144033)*

Assessment Stage 1

This late 17th century farmhouse is located on a level shelf with a rising landform to the south-west and overlooking a slight valley to the north-west. The farmhouse is part of a complex of farm buildings and its immediate setting is that of a modern working farm. The frontage of the farmhouse faces to the north-west and has views over the predominantly rural landscape, however, at the time of the site visit, the first of the two consented 110m to bladetip turbines at Garlenick was under construction some 750m to the north-east (Figure 21).

Assessment Stage 2

The significance of the farmhouse resides to a large degree in the *illustrative historical value* and *design value* of its vernacular architecture, as pre-1750 farm buildings are generally rare and considered to be of national importance. The relevant setting of the building is considered to be that of the surrounding curtilage which makes up the working farm, and it is considered that views of the surrounding landscape and the wider setting of the farm contribute little to the significance of the farmhouse.



Assessment Stage 3

Whilst it is likely that the proposed turbine would be visible against the skyline in views north-west from the frontage of the farmhouse (MLA 2014, Viewpoint 03), this would be experienced within the same arc of view as the 110m to tip turbines at Garlenick. As these are much larger turbines and also far closer (c.0.75km as opposed to 2.5km to Penbetha), the cumulative effect would be negligible, and would not result in any loss of significance to the asset.

5.3.2 LB2 - Manor Houses (Grade II* Listed Building: NHLE no. 1327435)

Assessment Stage 1

This former manor house is of probable 16th to early 17th century in date, with 17th century alterations and late 19th century and 20th century additions. It is located on the east side of Fore Street close to the core of the settlement, slightly uphill and to the east of the medieval market cross (SM1) and 18th century Town Hall, and its setting comprises the immediate surroundings of the streetscape of Grampound. From the building frontage there are views north-west to the surrounding rural hinterland of the town which is visible as a horizon above the roofline of the line of buildings on the opposite side of Fore Street (Figure 22).

Assessment Stage 2

There is a presumption to list all pre-1700 buildings that contain significant original fabric, and the most intact of the 15th to 18th century houses will be listable at a higher grade (EH 2011b, 10; 12). Hence the significance of this building resides in the *illustrative historical, design and aesthetic values* of this rare survival of a vernacular Cornish manor house. The setting of the building does contribute to its significance, as views towards the building help to encapsulate its *aesthetic value*, but the setting has a small role to play compared to the physical survival of the vernacular architecture itself.

Assessment Stage 3

It is likely that from the frontage of the building, moving along Fore Street from east to west, the turbine would be visible on the skyline, appearing from behind the tower of St. Nun's Church when viewed from the eastern end of the Manor House, and being visible behind the tower of the Town Hall from the western end of the Manor House. However, it should be noted that this is not considered to be a key view of the building, as its *aesthetic value* is best appreciated from the opposite side of the road (Figure 23). Consequently it is concluded that the significance of the building, which resides largely within its architecture, would not be diminished as a result of the construction of the turbine, and its *aesthetic value* could still be appreciated unhindered.



5.3.3 LB3 – Pavilion approx 15 metres North West of Trewithen House (Grade I Listed Building: NHLE no. 1328913)

Assessment Stage 1

As discussed above in section 5.2.1, although within the ‘bare earth’ ZTV, any views towards the proposed turbine from this location will be screened by the dense vegetation surrounding Trewithen House and the shelter belt along the north-eastern border of the parkland. Consequently this asset is omitted from further assessment.

5.3.4 LB4 – Trewithen House (Grade I Listed Building: NHLE no. 1141100)

Assessment Stage 1

As discussed above in section 5.2.1, although within the ‘bare earth’ ZTV, any views towards the proposed turbine from this location will be screened by the dense vegetation surrounding Trewithen House and the shelter belt along the north-eastern border of the parkland. Consequently this asset is omitted from further assessment.

5.3.5 LB5 – Pavilion approximately 15 metres North East of Trewithen House (Grade I Listed Building: NHLE no. 1160827)

Assessment Stage 1

As discussed above in section 5.2.1, although within the ‘bare earth’ ZTV, any views towards the proposed turbine from this location will be screened by the dense vegetation surrounding Trewithen House and the shelter belt along the north-eastern border of the parkland. Consequently this asset is omitted from further assessment.

5.3.6 LB6 – Barn with Gate Piers and Adjoining Building Approx 50 M East of Golden Manor House (Grade II Listed Building: NHLE no. 1310504)*

Assessment Stage 1

This 15th – 16th century barn is partially within the ‘bare earth’ ZTV, but in reality any views towards the proposed turbine from this location will be screened by the cluster of farm buildings immediately adjacent to the north-west (Figure 24). Consequently this asset is omitted from further assessment.

5.3.7 LB7 – Golden Manor (Grade II Listed Building: NHLE no. 1141132)*

Assessment Stage 1

This early 16th century manor house is partially within the ‘bare earth’ ZTV, but in reality any views towards the proposed turbine from this location will be screened by the cluster of farm buildings immediately adjacent to the north-west, including



the barn at LB6, as well as the frequent trees within the garden of Golden Manor. Consequently this asset is omitted from further assessment.

5.3.8 LB8 – Church of St Crida, Creed (Grade I Listed Building: NHLE no. 1136281)

Assessment Stage 1

This Grade I Listed church has 12th century origins and as such is considered to be of ‘outstanding interest’. The church has a generally low-lying location nestled in a slight dip adjacent to the River Fal (Figure 26). The surrounding church yard is generally bounded by mature trees providing a sense of enclosure, and only occasional glimpsed views of the surrounding landscape are possible in the immediate vicinity of the church (Figure 25).

Assessment Stage 2

Approximately 45% of Grade I Listed Buildings are represented by churches, and typically, these comprise important medieval churches containing notable fittings, the very best examples of churches from all epochs or key designs of leading architects which are assigned this highest grade (EH 2011b, 20). In the case of the Church of St. Crida, it is the survival of the medieval fabric that provides this church with much of its significance, such as the 12th century pillar piscina with surviving fragments of medieval wall painting above, the 15th century tower and north transept as well as the presence of notable fittings, such as the 13th century font. Such features will provide such a building with *aesthetic value*, and also a *communal spiritual value* to those who continue to use the building for active worship. The setting of the church, although contributing to its *aesthetic* and *communal values* by providing a spiritual focal point in the landscape, contributes far less to its significance than the medieval architecture of the building itself, which enshrines its paramount *design value*.

Assessment Stage 3

As the church is located within a dip and the surrounding churchyard is enclosed by mature trees, there are only limited glimpses possible outwards to the surrounding landscape from the immediate vicinity of the church. The fields immediately to the north of the church also have frequent mature trees along their surrounding hedgerows, and this means that it is possible that views northwards toward the proposed turbine, c.1.75km to the north-west could be screened by the intervening vegetation. However, even if glimpsed views of the turbine were possible from within the vicinity of the church, as its significance derives largely from its medieval architecture rather than its setting, this would not result in any loss of significance to the asset.



5.3.9 LB9 – Church of St Cuby, Tregony (Grade I Listed Building: NHLE no. 1291868)

Assessment Stage 1

This church was dedicated to St. Cuby in c.6th century, although the present church is largely of 12th, 14th and 15th century date. It is located towards the northern end of the settlement of Tregony surrounded by a churchyard which is enclosed by mature trees. Consequently views towards the church are generally screened, and the only clear view is from the road immediately to the west of the church tower. Similarly, views from the church to the surrounding landscape are restricted by the encircling vegetation (Figure 27). Although this effect would be lessened during the winter months when the trees have shed their leaves, it is still considered that the surrounding vegetation would effectively screen the church.

Assessment Stage 1

As with the Church of St. Crida discussed above, it is the surviving medieval architecture and fittings of the church which imbue it with ‘outstanding interest’ and contribute the most to its significance. There are substantial Norman architectural survivals within the church, with the north transept walling probably being the earliest surviving element. The west tower is probably of 14th century date, and the pulpit incorporates oak benches and panels of 15th century date. It is considered that the setting of the church contributes little to its significance, which resides instead in its *design value* and to a lesser extent its continued *communal value* to the local worshippers who continue to use the church.

Assessment Stage 3

The church is located right on the edge of the ZTV for the bladetips of the proposed turbine location, c.3.65 km to the north. Due to the presence of the vegetation surrounding the churchyard, as well as the nearby intervening vegetation surrounding the fields immediately to the north, it is considered likely that there would be no views of the turbine from the vicinity of the church. Any glimpses that could be possible would not result in loss of significance, as this derives from the *design value* of the medieval architecture.

5.4 Conservation Areas

5.4.1 CA1 - Grampound

Assessment Stage 1

The Conservation Area of Grampound includes much of the core of the settlement, which developed along Fore Street, on a west-facing slope descending to an important crossing point on the River Fal. The wider landscape setting of the Conservation Area described in the Conservation Area Character Appraisal as ‘*of dispersed settlement, with farms, hamlets and small villages set within an agricultural landscape of largely ‘Anciently Enclosed Land’, as defined by the Cornwall Historic Landscape Characterisation’* (CC 2010, 10). The immediate setting



of the Conservation Area is described as having ‘a close relationship with the surrounding landscape, with strong continuity between the settlement plots and the surrounding field system. To the north of the conservation area is Town Mills, a historic mill complex with potentially medieval origins. Mill Lane, connecting Fore Street with the mill, continues to be the focus of significant residential development. To the south east, approached along a small lane enclosed by Cornish hedges, is the secluded and rural farm-based hamlet of Bossillian. To the north and south of the conservation area 20th and 21st century residential development has taken place in plots adjacent to the minor roads of the settlement’ (CC 2010, 11).

Assessment Stage 2

The Conservation Area Appraisal (CC 2010, 1) highlights a number of elements which contribute to its ‘special interest’, including:

- the surviving medieval topography of the roadside settlement including the 13th century burgage plots and surrounding strip field system;
- a recent sensitive streetscape scheme which has enhanced the special character;
- a high degree of completeness and integrity to the core of the village provided by the concentration of predominantly Listed Buildings flanking Fore Street, creating strong levels of enclosure;
- the thatched Manor House is of particular note, as is the area around the Town Hall, St. Nun’s Church and Market Cross at the heart of the village;
- the Town Hall that juts into the road is the iconic landmark of the settlement and the focus of the most important views; and
- an interesting industrial heritage with former mill sites and tanneries being significant elements in the unique character of the settlement.

The key vistas noted in the character appraisal include:

- views along Fore Street toward the Town Hall. Views open up sequentially when approaching from the east due to the curving line of the road, heightening the sense of arrival (Figure 29);
- views from the top of Fore Street across to the western slopes of the Fal valley with its open fields and mature trees (Figure 28);
- glimpsed views of back-plot developments from Fore Street (Figure 31);
- views of the gable ends of buildings on Old Hill from the bridge (Figure 32);
- views towards the settlement in its wider landscape setting from the upper western slopes (Figure 33);
- views from the western valley side to the Town Mill.



Assessment Stage 3

In terms of the key vistas described above, the majority would not be impacted by the erection of the proposed turbine. The glimpsed views to the back plots would not include the turbine, and the views towards Old Hill and from the western valley sides towards the settlement are also not in the direction of the turbine. The key iconic view of the Town Hall, Market Cross and St. Nun's Church is from the west, facing up the hill away from the turbine, and likewise the view of Manor Houses is from the opposite side of the road looking to the south-east and away from the turbine. It is also considered unlikely that the turbine would be visible from the top of Fore Street with the views across the Fal valley to the west. However, the turbine would become visible above the roofline on the northern side of the street with movement westwards along Fore Street. It is possible that the turbine would be screened by the buildings along the northern side of Fore Street when travelling along the northern pavement, but the LVIA photomontage (MLA 2014, Photomontage Viewpoint 09) illustrates that it would be a skyline feature above the northern roofline when viewed from the south side of Fore Street when travelling from the east, and the turbine would be included in views towards the Town Hall when approaching from this direction. However, the Character Appraisal (CCC 2010, 31) notes that 'the dominant build lines along Fore Street create a strong sense of enclosure', and this would provide a counterbalance to any distracting influence of the turbine, as the view is channelled along the built corridor of the main street. It should also be noted that the photomontage (MLA 2014, Photomontage Viewpoint 09) indicates that the turbine would be of comparable visibility to the television aerials in this view, and as the turbine would be at a higher topographic level it would be less noticeable at vehicular/pedestrian level (MLA 2014, 66).

5.4.2 CA2 - *Probus*

Only the very eastern extent of the Conservation Area falls within the ZTV for the proposed turbine (Figure 9), mainly comprising King George's playing field and a short stretch along Chapel Lane. A visit to the Conservation Area confirmed that despite falling within the ZTV, the surrounding streetscape immediately to the east of the Conservation Area comprising a modern housing estate and abattoir would be likely to screen most views to the east towards the turbine, 3.1km to the east-north-east, and only rare glimpsed views might be possible from Chapel Lane. These potential rare glimpsed views out of the Conservation Area are most likely from the area of the school which is located at the northern edge of the designated area on Chapel Lane. It is considered that this view from the school does not contribute to the special interest of the Conservation Area, and therefore even if the turbine were visible this would not result in loss of significance.

The ZTV also indicates that there are only very limited areas to the west of the town where there is the possibility that the imposing spire of the Grade I Church could potentially be caught in the same arc of view as the turbine, and the nearest such view would be c.4.65km from the turbine, and of the bladetips only, and therefore it is considered that the turbine, if visible, would not be prominent in this view. Whilst it is noteworthy that this discrete area where the bladetips might be visible



includes the site of the medieval chapel at Trelowthas (HER no. 22607.10), and intervisibility between the chapel and the church at Probus might have been possible in the later medieval period once the church had been constructed. However, the chapel is no longer extant, and its precise location is unknown, and therefore it is considered that the significance of this asset derives from the *evidential value* of any surviving buried remains, and not from potential long distant views that would include the church spire from this vicinity.

5.4.3 CA2 – Tregony

This Conservation Area is almost wholly outside the ZTV for the proposed turbine, and only the very northern tip of the designated area falls inside. This small area contains the Church of St. Cuby, as described in Section 5.3.9 above (LB9). As discussed previously, the intervening vegetation surrounding the churchyard and the field immediately to the north would screen views northwards towards the proposed turbine location, although it is possible that the blades might be glimpsed through any gaps in the vegetation. It is considered that any such glimpses from a very restricted area of the Conservation Area would not result in any loss of significance, and thus this was not assessed further.

6 CONCLUSIONS

The proposed turbine location is situated within the ‘Anciently Enclosed Land’ HLC type, and ‘buried archaeological features from prehistoric, medieval and post medieval periods... can be expected virtually anywhere in this type’ (CC 2011, 21). The hill upon which the turbine is proposed is the site of a settlement known to have been in existence since at least the 10th century, and the name of the settlement is thought to refer to the location of burials of possible Bronze Age date. Consequently it is concluded that there is the potential for buried archaeological remains to be present within the proposed development area, although ploughing on the hill is known from at least the late 17th century, and this is likely to have truncated any remains which might survive.

Since the original compilation of this DBA, a geophysical survey has been undertaken which has identified a total of nineteen anomaly groups thought to be of archaeological origin (Dean 2014, 4). These anomalies include a linear feature thought to be the location of a former Cornish field bank boundary, and a sub-circular anomaly thought to be a possible ring ditch of a barrow or round house. There is also a group of oval anomalies thought to represent a possible cluster of pits or post holes, and other anomalies thought to relate to field boundaries or other enclosures of potentially more than one phase. The results of the geophysical survey can be used to inform the micro-siting of the trackway to the proposed turbine, and inform consultations with Cornwall Council’s Senior Archaeologist regarding any further archaeological evaluation or mitigation.



The setting assessment has concluded that the majority of the heritage assets within the wider landscape would not be impacted by the proposals. There will be a visual change to one of the six key vistas identified in the Character Appraisal for the Conservation Area at Grampound, i.e. the views along Fore Street towards the Town Hall. However, the iconic view towards the Town Hall is from the west, looking uphill towards the cluster of important buildings at the medieval core of the village, including the Market Cross, Manor Houses and St. Nun's Church, and this view would not be affected. The views westwards along Fore Street which would include the turbine are characterised by dominant build lines creating a strong sense of enclosure, and this would provide a counterbalance that would serve to reduce any distracting/competing influence of the turbine in this view. All of the other vistas which contribute towards the Conservation Area's special interest would remain unaffected.

7 STATEMENTS AND ACKNOWLEDGEMENTS

7.1 Publicity, Confidentiality and Copyright

Any publicity will be handled by the client.

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7.2 Statement of Indemnity

All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

7.3 Acknowledgements

Archaeological Research Services Ltd would like thank Tim Dart of Timothy Dart Ltd and Tori Heaton of Earthmill Ltd for commissioning the work, Dan Ratcliffe and Emma Trevarthen of Cornwall Historic Environment Record for the provision of data and advice, Cornwall Records Office for permission to reproduce images of historic maps held in their collection, and the National Trust/Lanhydrock Estate for permission to reproduce the map of Penbetha Farm from the Lanhydrock Atlas.



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APPENDIX 1 – ASSETS OF THE HIGHEST SIGNIFICANCE WITHIN THE ZTV (WITHIN 5KM)

SCHEDULED MONUMENTS

Project ID	NHLE No.	Name	NGR	Distance from turbine location
SM1	1020752	Round 330m south east of Penhale	SW 88495 51023	c.4.92 km to the NW
SM2	1020751	Round barrow 530m north west of Carnwinnick	SW 92225 51689	c.2.87 km to the NNW
SM3	1017685	Resugga Castle later prehistoric univallate hillfort	SW 93961 51064	c.2.30 km to the NE
SM4	1016890	Prehistoric and Roman settlement at Carvossa	SW 91879 48266	c.1.1. km to the SW
SM5	1021003	Market Cross and cross base immediately south west of St Nun's Church	SW 93580 48303	c.0.85 km to the SE
SM6	1007962	Medieval wayside cross base on Creed Hill, 400m south of Grampound	SW 93493 47880	c.1.14 km to the SE
SM7	1016284	Nancor Cross, 400m north west of Nancor	SW 94466 48397	c.1.56 km to the ESE
SM8	1010843	Fair Cross, 420m WNW of Tregidgeo Farm	SW 95605 47361	c.3.03 km to the SE
SM9	1016889	Golden Camp hillfort	SW 92454 46853	c.2.03 km to the SSW
SM10	1020104	Standing cross 200m south of Trelowthas	SW 88553 46671	c.4.95 km to the SW

REGISTERED PARKS AND GARDENS

Project ID	NHLE No.	Grade	Name	NGR	Distance from turbine location
PG1	1000510	II*	Trewithen	SW 91172 47510	c.1.65 km to the SW
PG2	1000658	II	Trewarthenick	SW 90415 44098	c.3.75 km to the SW

LISTED BUILDINGS (Grade I and II*)

Project ID	NHLE No.	Grade	Name	NGR	Distance from turbine location
LB1	1144033	II*	Pennans Farmhouse	SW 95460 48967	c.2.48 km to the E



Project ID	NHLE No.	Grade	Name	NGR	Distance from turbine location
LB2	1327435	II*	Manor Houses	SW 93615 48268	c.0.89 km to the SE
LB3	1328913	I	Pavilion Approx 15 Metres North West of Trewithen House	SW 91279 47542	c.2.18 km to the SW
LB4	1141100	I	Trewithen House	SW 91309 47516	c.2.17 km to the SW
LB5	1160827	I	Pavilion Approximately 15 metres North East Of Trewithen House	SW 91335 47545	c.2.13 km to the SW
LB6	1310504	II*	Barn with Gate Piers and Adjoining Building Approx 50 m East of Golden Manor House	SW9208946895	c.2.20 km to the SW
LB7	1141132	II*	Golden Manor	SW 92045 46847	c.2.26 km to the SW
LB8	1136281	I	Church of St Crida	SW 93491 47224	c.1.76 km to the SSE
LB9	1291868	I	Church of St Cuby	SW 92762 45252	c.3.66 km to the S

APPENDIX 2 – NON-DESIGNATED ARCHAEOLOGICAL REMAINS WITHIN 1KM

Project ID	HER ID	Name	Description
AR01	MCO8772	TREVAN WOOD - Iron Age round, Romano British round	Polygonal univallate enclosure, 60m by 40m, with south-east facing entrance, visible as a cropmark on air photographs.
AR02	MCO20562	BENALLACK - Prehistoric field system, Romano British field system	N/A
AR03	MCO21398	BENALLACK - Prehistoric enclosure, Romano British enclosure	Polygonal univallate enclosure, 30m by 30m, visible as a cropmark on aerial photographs.
AR04	MCO20563	BENALLACK - Prehistoric field system, Romano British field system	N/A
AR05	MCO7574	BENALLACK - Iron Age round, Romano British round	A large univallate enclosure, in the nature of an inland promontory fort with the defences on the north-west neck ploughed out.



Project ID	HER ID	Name	Description
AR06	MCO9787	BENALLACK - Medieval chapel	A chapel dedicated to St George was sited at Benallack Barton.
AR07	MCO13361	BENALLACK - Medieval settlement	The settlement of Benallack is first recorded in 1244.
AR08	MCO5332	HALLNOWETH - Medieval cross	The site of a cross which marked the site of a chapel at Hallnoweth.
AR09	MCO9967	HALLNOWETH - Medieval chapel	The site of a chapel destroyed before 1800.
AR10	MCO14711	HALONOETH - Medieval settlement	The settlement of Hallnoweth is first recorded in 1345.
AR11	MCO8581	TREDINNICK - Iron Age hillfort, Iron Age round, Romano British hillfort, Romano British round	The place-name Tredinnick was erroneously thought to suggest the site of a round or hillfort.
AR12	MCO17147	TREDINNICK - Early Medieval settlement, Medieval settlement	The settlement of Tredinnick is first recorded in 1404 when it is spelt "Trenethinek".
AR13	MCO30048	TREVOLLAND - Prehistoric field system, Romano British field system	N/A
AR14	MCO13165	WHEAL TREVILLICK - Post Medieval mine	Wheal Trevillick was a lead mine which was in operation in 1854.
AR15	MCO17932	TREVILLICK - Early Medieval settlement, Medieval settlement	The settlement of Trevillick is first recorded in 1216 when it is spelt "Trevillioch".
AR16	MCO30049	TREVOLLAND - Prehistoric field system, Medieval field system	N/A
AR17	MCO5299	TREVOLLAND - Medieval cross	The possible location of a granite decorated cross base formerly at Trentant, St Neot.
AR18	MCO17958	TREVOLLAND - Early Medieval settlement, Medieval settlement	The settlement of Trevolland is first recorded in 1194.
AR19	MCO2402	CARVOSSA - Bronze Age barrow	A round barrow, visible on air photographs as a low earth mound.
AR20	MCO26132	TREVOLLAND - Medieval field system	N/A
AR21	MCO16046	PENBETHA - Early Medieval settlement, Medieval settlement	The settlement of Penbetha is first recorded in 969 when it is spelt "Penn Bethow".
AR22	MCO3245	PENBETHA - Bronze Age barrow	The place-name element bethow suggests the site of a barrow but there are no remains.
AR23	MCO26131	PENBETHA - Medieval fulling mill	N/A



Project ID	HER ID	Name	Description
AR24	MCO21390	BARTELIVER - Prehistoric enclosure, Romano British enclosure	Possible polygonal univallate enclosure, 20m by 20m, visible as a low earth bank on aerial photographs.
AR25	MCO21275	PENGARTH - Medieval field system, Post Medieval field system	Remains of a rectilinear field system on the western bank of the Fal.
AR26	MCO29741	GRAMPOUND - Post Medieval factory	The site of a woollen factory at Grampound.
AR27	MCO26117	GRAMPOUND - Post Medieval almshouse	The Grampound Borough poorhouse is recorded on the Tithe Award map of 1840.
AR28	MCO21389	BARTELIVER - Prehistoric enclosure, Romano British enclosure	Square univallate enclosure, 20m by 20m, visible as a soil mark on aerial photographs.
AR29	MCO2078	BARTELIVER - Bronze Age barrow	A round barrow consisting of a circular ring ditch enclosure, visible as a crop mark on air photographs.
AR30	MCO20974	GRAMPOUND - Medieval field system	Field boundaries to the south-west of Grampound fossilise the boundaries of medieval strip fields.
AR31	MCO7410	GRAMPOUND - Bronze Age standing stone	A strip field named Longstone Close in 1840 may be the site of a menhir.
AR32	MCO9569	GRAMPOUND - Medieval bridge	The first bridge over the Fal at Grampound was built in about 1250.
AR33	MCO26133	GRAMPOUND - Medieval settlement	By 1296 the town of Grampound stood on both sides of the Fal.
AR34	MCO9954	GRAMPOUND - Medieval chapel	The site of a medieval chapel at Grampound.
AR35	MCO13329	BARTELIVER - Medieval settlement	The settlement of Barteliver is first recorded in 1337 when it is spelt "Baghytleuer".
AR36	MCO26114	BARTELIVER - Medieval quarry	N/A
AR37	MCO42879	BARTELIVER WOOD - Modern auxiliary hide	This was the Grampound Auxiliary Unit's Operational Base.
AR38	MCO26141	GRAMPOUND - Medieval leper hospital	A lazar house for thirty lepers at Grampound is recorded in 1309, but its exact site is unknown.
AR39	MCO10513	BOSILLIAN - Medieval dovecote, Post Medieval dovecote	N/A
AR40	MCO16511	QUARRY PARC - Medieval settlement	The settlement of Quarry-parc is first recorded in 1337 when it is spelt "Quarrere".

The details above have been reproduced from the HER entries © Cornwall Council.



APPENDIX 3 – GRADE II LISTED BUILDINGS WITHIN 1KM

Project ID	NHLE ID	Name
LB10	1160506	BENALLACK FARMHOUSE AND GARDEN WALLS WITH IRON GATE
LB11	1141094	TREGELLAS FARMHOUSE
LB12	1136277	TREVILICK FARMHOUSE
LB13	1144012	TOWN MILLS
LB14	1312722	MILL COTTAGES
LB15	1136621	THE THATCHED COTTAGE
LB16	1327439	LAURELS
LB17	1396215	A390 Milestone approx 16m east of the weighbridge
LB18	1144013	BELMONT
LB19	1312725	SHELL COTTAGE AND OLD HILL COTTAGE
LB20	1312837	PAIR OF ATTACHED HOUSES IMMEDIATELY WEST OF THE TREVILICK GUEST HOUSE
LB21	1327450	TREVILICK GUEST HOUSE
LB22	1136319	PEN Y LAN AND HOUSE ATTACHED TO EAST
LB23	1144037	PENDENE AND LITTLE PENDENE
LB24	1136332	TREVAIL
LB25	1144038	VERCOE
LB26	1327451	THE DOLPHIN INN
LB27	1136342	YE OLD POST OFFICE AND HOUSE ATTACHED TO EAST
LB28	1144039	GODFREYS
LB29	1136348	RINGMORE HOUSE
LB30	1327452	ROSKEAR
LB31	1312820	FAIRMAN HOUSE
LB32	1144040	LINDLEY
LB33	1136361	SPRINGFIELD
LB34	1144041	CHURCH OF ST NUN WITH ATTACHED WALL, RAILINGS AND GATEWAY TO SOUTH
LB35	1136383	MARKET CROSS
LB36	1144042	TOWN HALL AND CLOCK TOWER
LB37	1136419	SUNNYSIDE
LB38	1144043	WOODBINE VILLA
LB39	1136433	BONYTHON
LB40	1144044	HOUSE IMMEDIATELY EAST OF BONYTHON



Project ID	NHLE ID	Name
LB41	1144045	HOUSE IMMEDIATELY WEST OF BROADHURST
LB42	1136447	BROADHURST
LB43	1144046	HOLLIES STORES AND POST OFFICE
LB44	1312785	THE HOLLIES
LB45	1327438	BRIDGE COTTAGE
LB46	1136569	HILLSBORO
LB47	1144011	VINE COTTAGE
LB48	1136558	HOUSE IMMEDIATELY WEST OF THE COTTAGE RESTAURANT
LB49	1391499	K6 TELEPHONE KIOSK
LB50	1327437	THE COTTAGE RESTAURANT
LB51	1312753	HOUSE IMMEDIATELY WEST OF PENWYN HOUSE
LB52	1144010	PENWYN HOUSE
LB53	1312749	HOUSE ATTACHED TO WEST OF APRIL COTTAGE
LB54	1327436	APRIL COTTAGE
LB55	1312746	OLDE WALLS
LB56	1144009	TRENANCE
LB57	1144008	MANOR HOUSE
LB58	1327434	TREVREA
LB59	1327471	RADNOR HOUSE ANTIQUES
LB60	1144006	HOUSE IMMEDIATELY WEST OF BROOKLYN
LB61	1327470	BROOKLYN
LB62	1144005	SUNRISE AND HOUSE ATTACHED TO EAST
LB63	1144004	BROUARD COTTAGE
LB64	1144007	DRYING SHED AND ATTACHED PIT SHED AT THE EAST SIDE OF THE MANOR TANNERY GROUP
LB65	1144035	BOSILLIAN FARMHOUSE
LB66	1406818	Cartshed 22m south-west of Barteliver Farmhouse, Grampound, Truro
LB67	1141130	BART-LIVER FARMHOUSE, GARDEN WALLS, IRON RAILINGS AND GATE TO SOUTH
LB68	1406260	Bank barn south-west of Barteliver Farmhouse
LB59	1327471	RADNOR HOUSE ANTIQUES
LB60	1144006	HOUSE IMMEDIATELY WEST OF BROOKLYN
LB61	1327470	BROOKLYN



APPENDIX 4 – NON-DESIGNATED HISTORIC BUILDINGS WITHIN 1KM

Project ID	HER ID	Name
HB01	MCO29740	TREVILLICK - Post Medieval cider press, Post Medieval cider mill
HB02	MCO6140	TREVILLICK - Medieval cross
HB03	MCO53415	GRAMPOUND - Post Medieval milestone
HB04	MCO26129	GRAMPOUND - Post Medieval tannery
HB05	MCO26128	GRAMPOUND - Post Medieval toll house
HB06	MCO53102	GRAMPOUND - Post Medieval school
HB07	MCO32953	GRAMPOUND - Post Medieval nonconformist chapel
HB08	MCO26118	CROGGANS TANNERY - Medieval tannery, Post Medieval tannery
HB09	MCO56260	BARTELIVER - C19 shelter shed



APPENDIX 5: LANDMARK ENVIROCHECK HISTORIC MAPPING REPORT



Historical Mapping Legends

Ordnance Survey County Series 1:10,560

- Gravel Pit
- Sand Pit
- Other Pits
- Quarry
- Shingle
- Orchard
- Osiers
- Reeds
- Marsh
- Mixed Wood
- Deciduous
- Brushwood
- Fir
- Furze
- Rough Pasture
- Arrow denotes flow of water
- Trigonometrical Station
- Site of Antiquities
- Bench Mark
- Pump, Guide Post, Signal Post
- Well, Spring, Boundary Post
- 285** Surface Level
- Sketched Contour
- Instrumental Contour
- Main Roads
- Minor Roads
- Sunken Road
- Raised Road
- Road over Railway
- Railway over River
- Railway over Road
- Level Crossing
- Road over River or Canal
- Road over Stream
- Road over Stream
- County Boundary (Geographical)
- County & Civil Parish Boundary
- Administrative County & Civil Parish Boundary
- County Borough Boundary (England)
- County Burgh Boundary (Scotland)
- Rural District Boundary
- Civil Parish Boundary

Ordnance Survey Plan 1:10,000

- Chalk Pit, Clay Pit or Quarry
- Gravel Pit
- Sand Pit
- Disused Pit or Quarry
- Refuse or Slag Heap
- Lake, Loch or Pond
- Dunes
- Boulders
- Coniferous Trees
- Non-Coniferous Trees
- Orchard
- Scrub
- Coppice
- Bracken
- Heath
- Rough Grassland
- Marsh
- Reeds
- Saltings
- Building
- Glasshouse
- Direction of Flow of Water
- Shingle
- Sand
- Sloping Masonry
- Pylon
- Electricity Transmission Line
- Pole
- Cutting
- Embankment
- Standard Gauge Multiple Track
- Standard Gauge Single Track
- Siding, Tramway or Mineral Line
- Narrow Gauge
- Geographical County
- Administrative County, County Borough or County of City
- Municipal Borough, Urban or Rural District, Burgh or District Council
- Borough, Burgh or County Constituency
- Civil Parish
- BP, BS** Boundary Post or Stone
- Ch** Church
- CH** Club House
- F E Sta** Fire Engine Station
- FB** Foot Bridge
- Fn** Fountain
- GP** Guide Post
- MP** Mile Post
- MS** Mile Stone
- Pol Sta** Police Station
- PO** Post Office
- PC** Public Convenience
- PH** Public House
- SB** Signal Box
- Spr** Spring
- TCB** Telephone Call Box
- TCP** Telephone Call Post
- W** Well

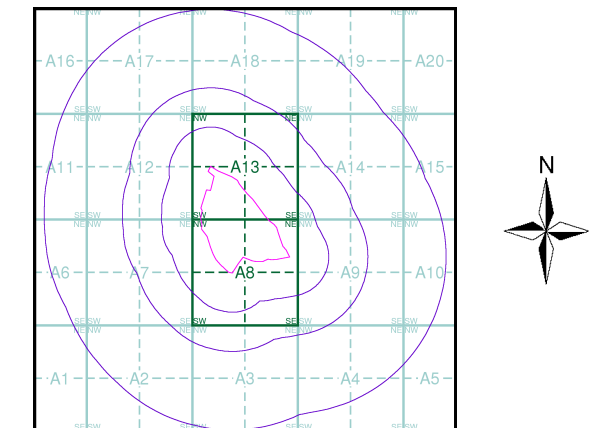
1:10,000 Raster Mapping

- Gravel Pit
- Rock
- Boulders
- Shingle
- Sand
- Slopes
- General detail
- Overhead detail
- Multi-track railway
- County boundary (England only)
- District, Unitary, Metropolitan, London Borough boundary
- Refuse tip or slag heap
- Rock (scattered)
- Boulders (scattered)
- Mud
- Sand Pit
- Top of cliff
- Underground detail
- Narrow gauge railway
- Single track railway
- Civil, parish or community boundary
- Constituency boundary
- Area of wooded vegetation
- Non-coniferous trees
- Non-coniferous trees (scattered)
- Coniferous trees
- Coniferous trees (scattered)
- Orchard
- Rough Grassland
- Scrub
- Water feature
- Mean high water (springs)
- Telephone line (where shown)
- Bench mark (where shown)
- Point feature (e.g. Guide Post or Mile Stone)
- Site of (antiquity)
- General Building
- Non-coniferous trees
- Coniferous trees
- Positioned tree
- Coppice or Osiers
- Heath
- Marsh, Salt Marsh or Reeds
- Flow arrows
- Mean low water (springs)
- Electricity transmission line (with poles)
- Triangulation station
- Pylon, flare stack or lighting tower
- Glasshouse
- Important Building

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Cornwall & Isles Of Scilly	1:10,560	1888 - 1889	2
Cornwall & Isles Of Scilly	1:10,560	1908	3
Ordnance Survey Plan	1:10,000	1962 - 1963	4
Ordnance Survey Plan	1:10,000	1980 - 1981	5
10K Raster Mapping	1:10,000	2006	6
VectorMap Local	1:10,000	2014	7

Historical Map - Slice A



Order Details

Order Number: 60835348_1_1
 Customer Ref: 201314/20
 National Grid Reference: 192940, 48870
 Slice: A
 Site Area (Ha): 21.03
 Search Buffer (m): 1000

Site Details

Site at 192937,48901

Cornwall & Isles Of Scilly

Published 1888 - 1889

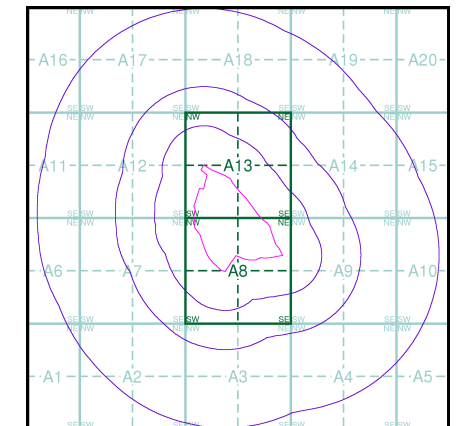
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

049SE 1888 1:10,560	050SW 1889 1:10,560
058NE 1888 1:10,560	059NW 1888 1:10,560

Historical Map - Slice A

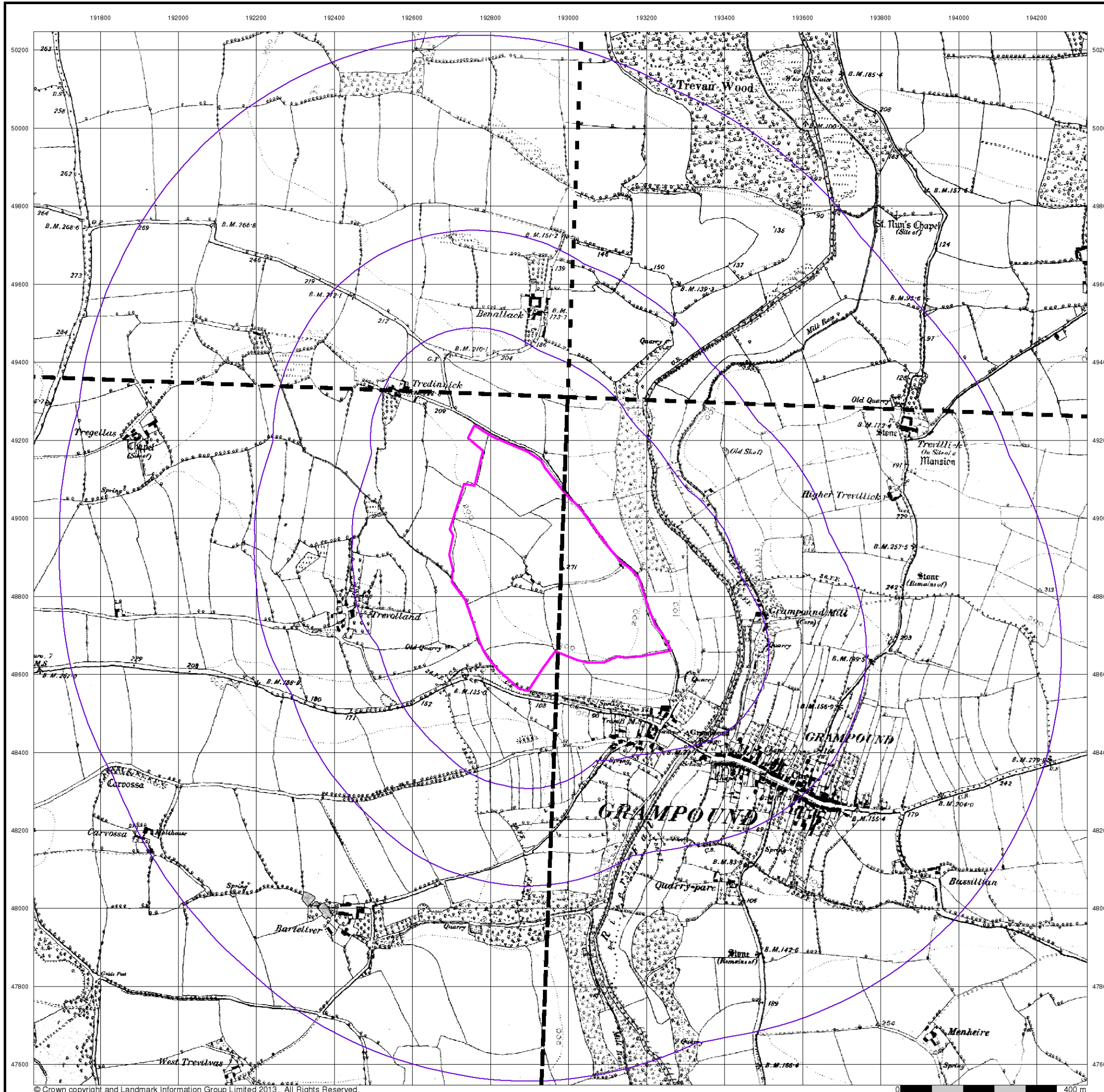


Order Details

Order Number: 60835348_1_1
 Customer Ref: 201314/20
 National Grid Reference: 192940, 48870
 Slice: A
 Site Area (Ha): 21.03
 Search Buffer (m): 1000

Site Details

Site at 192937,48901



Cornwall & Isles Of Scilly

Published 1908

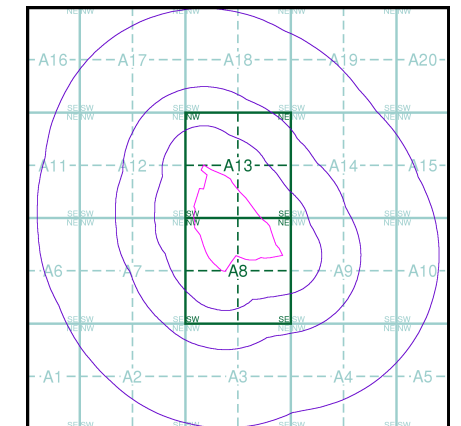
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

049SE 1908 1:10,560	050SW 1908 1:10,560
058NE 1908 1:10,560	059NW 1908 1:10,560

Historical Map - Slice A

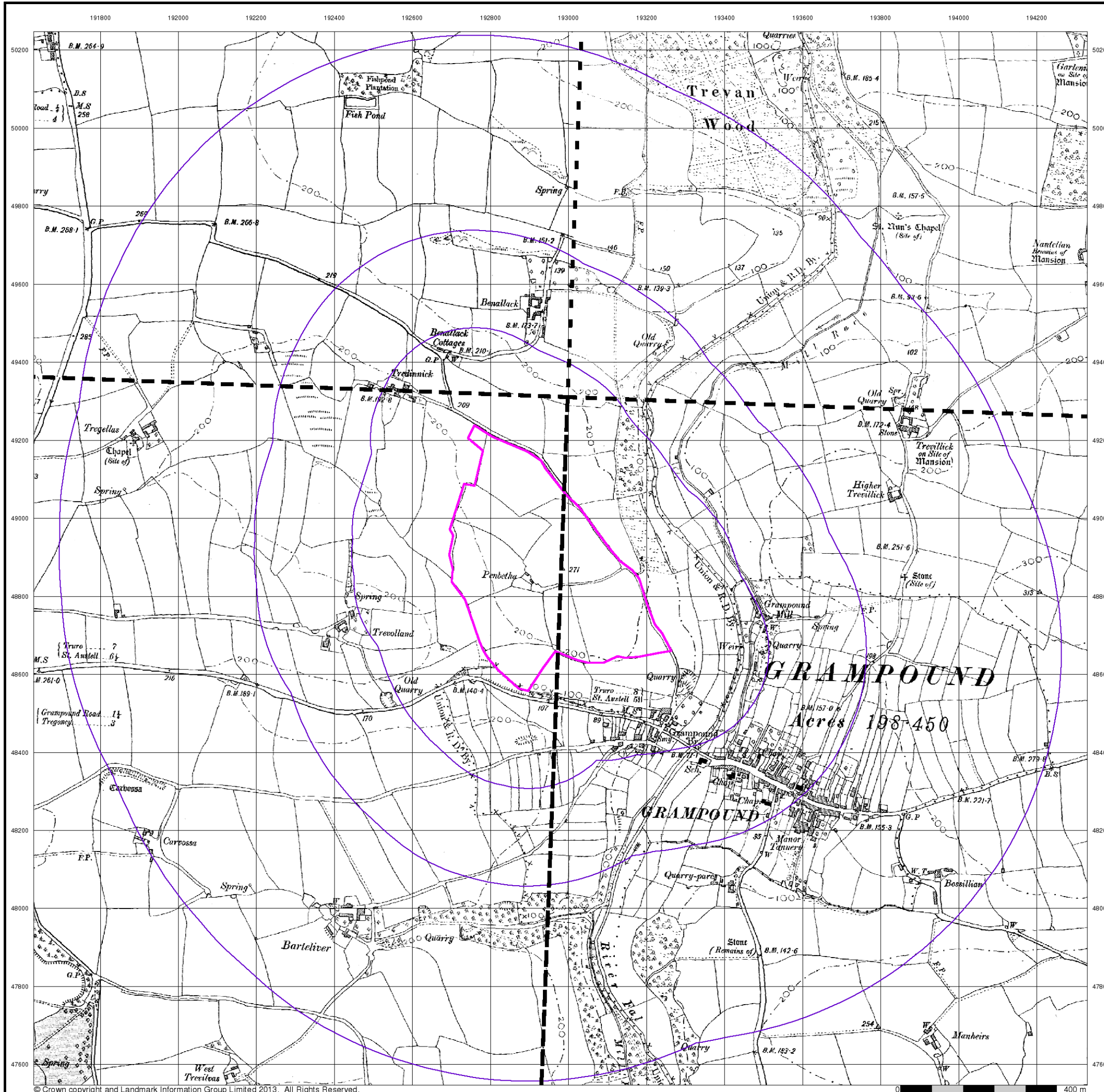


Order Details

Order Number: 60835348_1_1
 Customer Ref: 201314/20
 National Grid Reference: 192940, 48870
 Slice: A
 Site Area (Ha): 21.03
 Search Buffer (m): 1000

Site Details

Site at 192937,48901



Ordnance Survey Plan

Published 1962 - 1963

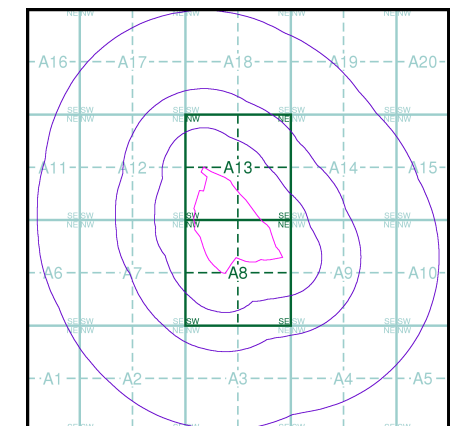
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SW95SW	1962
1:10,560	
SW94NW	1963
1:10,560	

Historical Map - Slice A

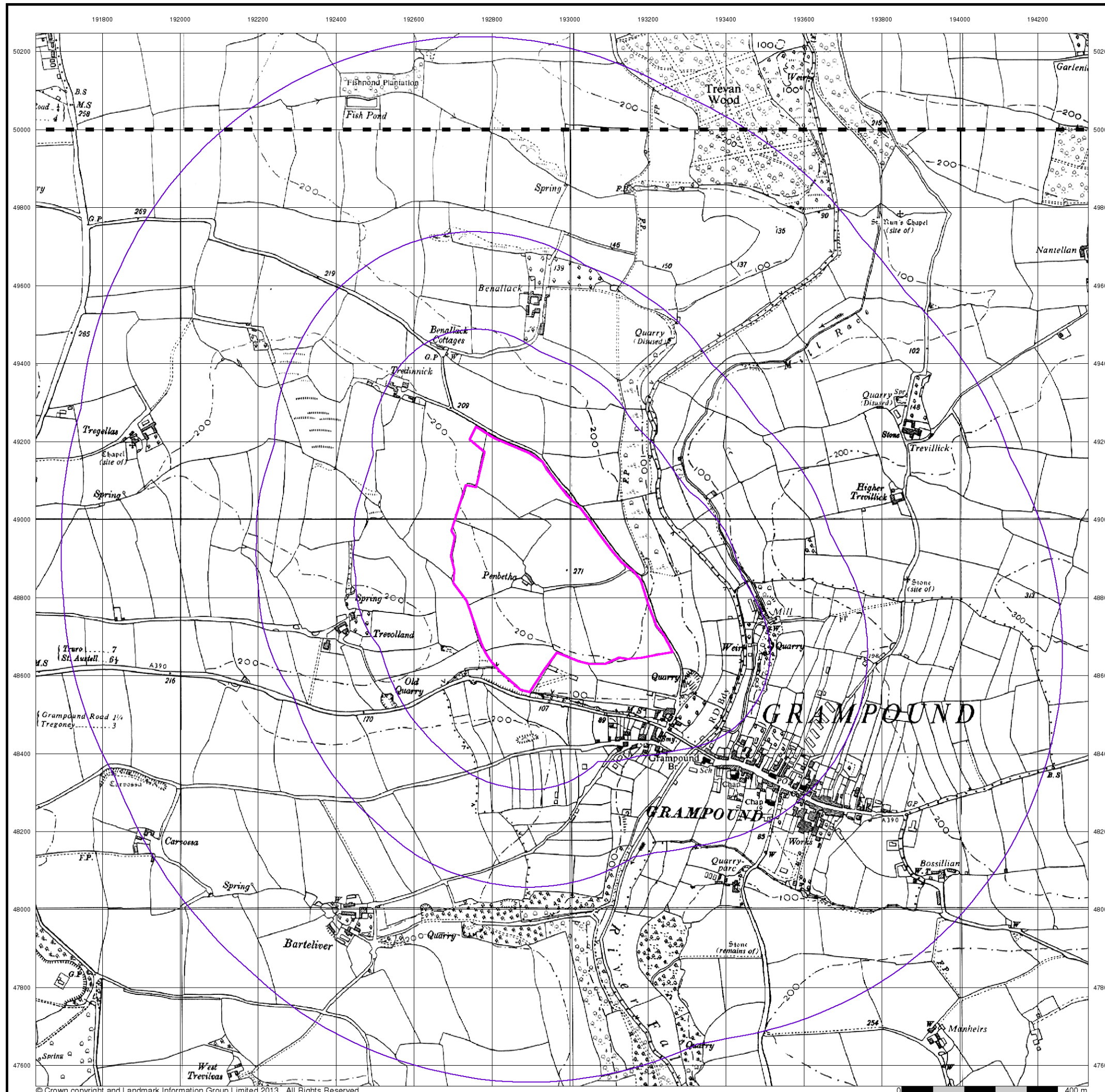


Order Details

Order Number: 60835348_1_1
 Customer Ref: 201314/20
 National Grid Reference: 192940, 48870
 Slice: A
 Site Area (Ha): 21.03
 Search Buffer (m): 1000

Site Details

Site at 192937,48901



Ordnance Survey Plan

Published 1980 - 1981

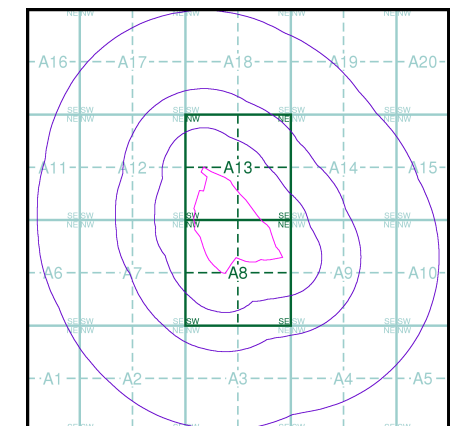
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SW95SW	1980	1:10,000
SW94NW	1981	1:10,000

Historical Map - Slice A

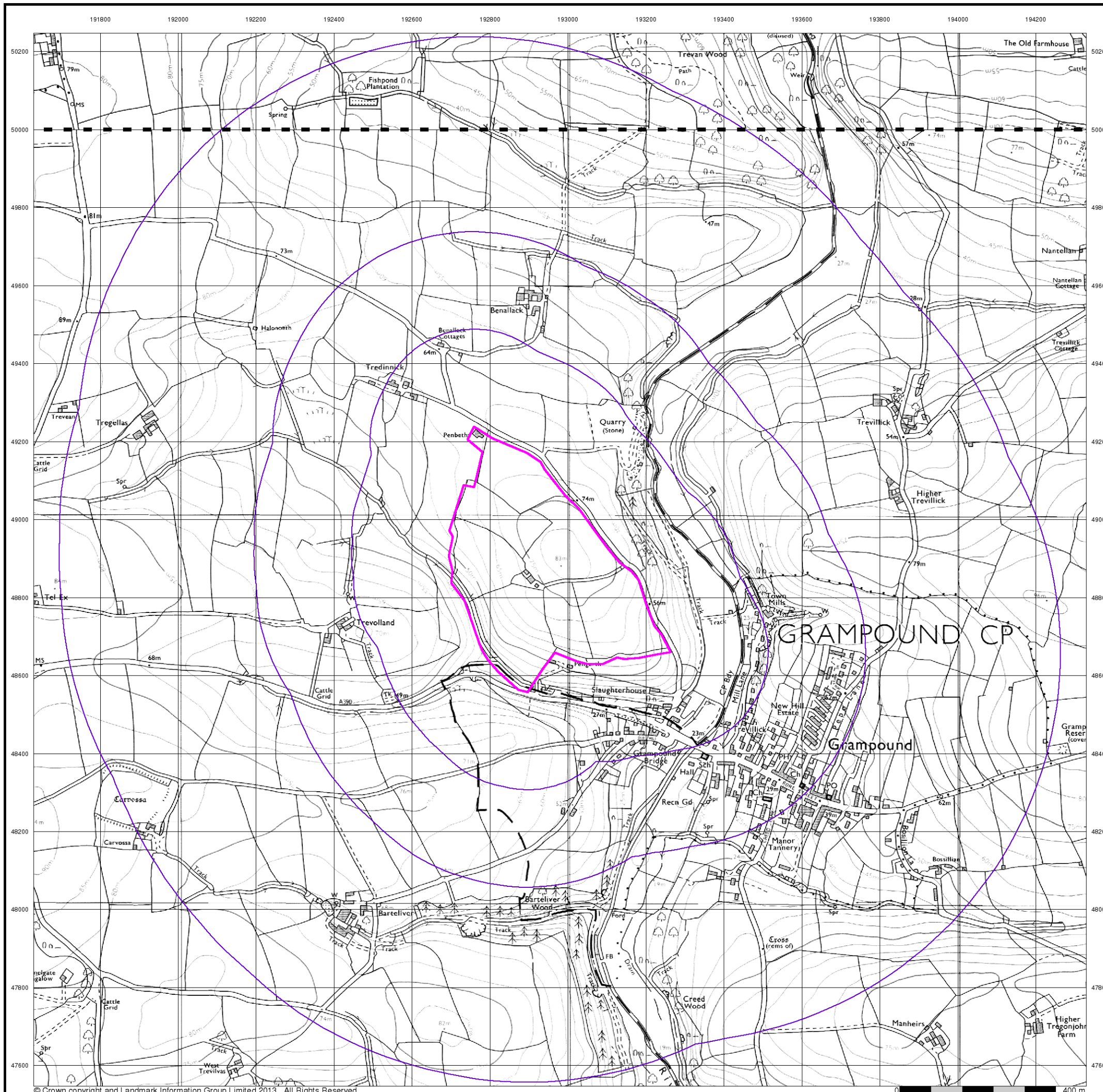


Order Details

Order Number: 60835348_1_1
 Customer Ref: 201314/20
 National Grid Reference: 192940, 48870
 Slice: A
 Site Area (Ha): 21.03
 Search Buffer (m): 1000

Site Details

Site at 192937,48901



10k Raster Mapping

Published 2006

Source map scale - 1:10,000

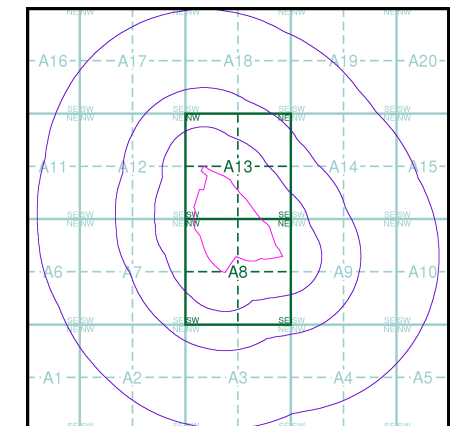
The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SW95SW
2006
1:10,000

SW94NW
2006
1:10,000

Historical Map - Slice A

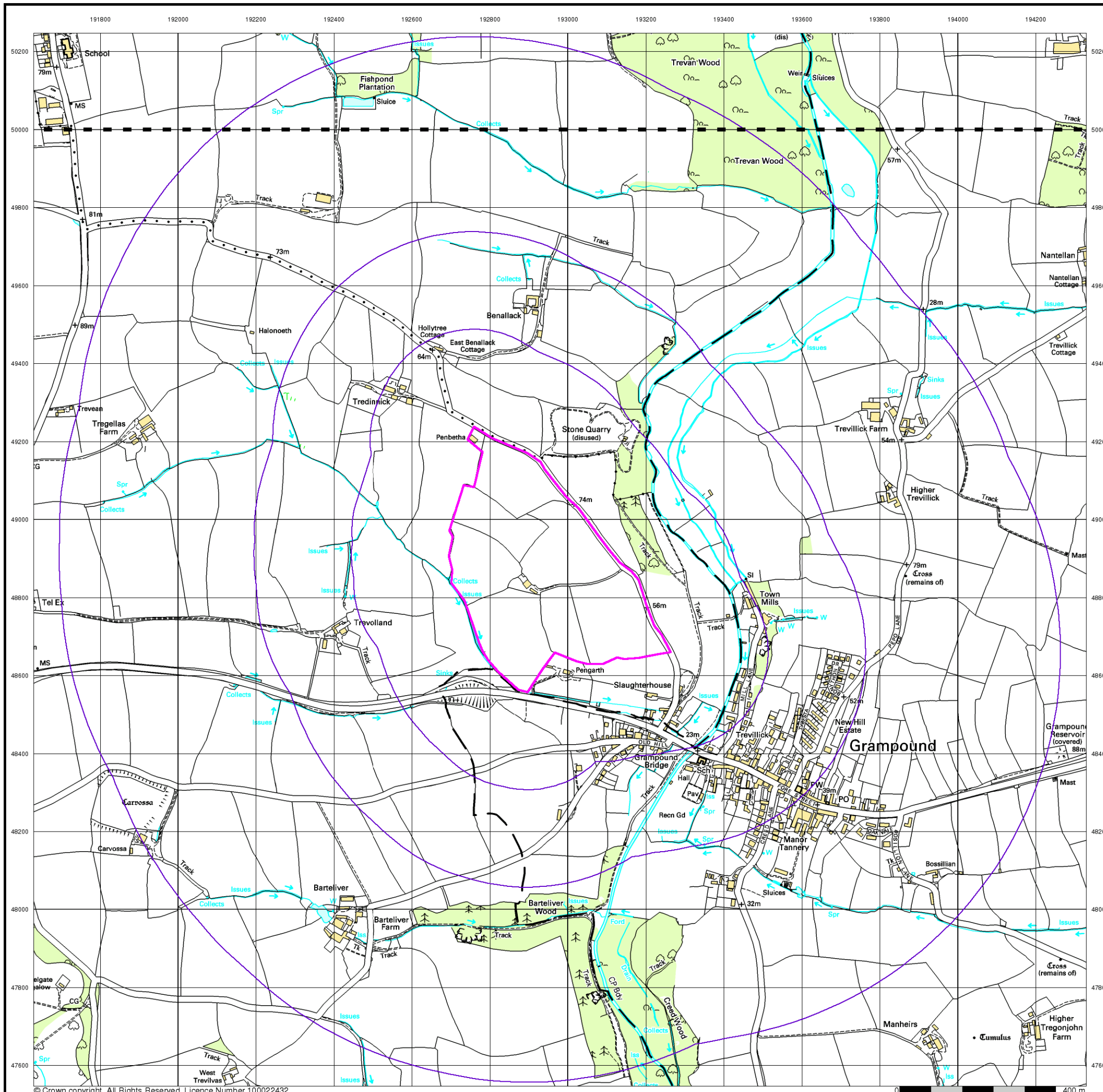


Order Details

Order Number: 60835348_1_1
 Customer Ref: 201314/20
 National Grid Reference: 192940, 48870
 Slice: A
 Site Area (Ha): 21.03
 Search Buffer (m): 1000

Site Details

Site at 192937,48901



VectorMap Local

Published 2014

Source map scale - 1:10,000

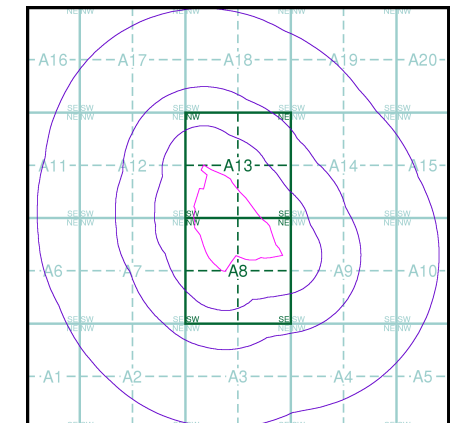
VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

SW95SW
2014
Variable

SW94NW
2014
Variable

Historical Map - Slice A

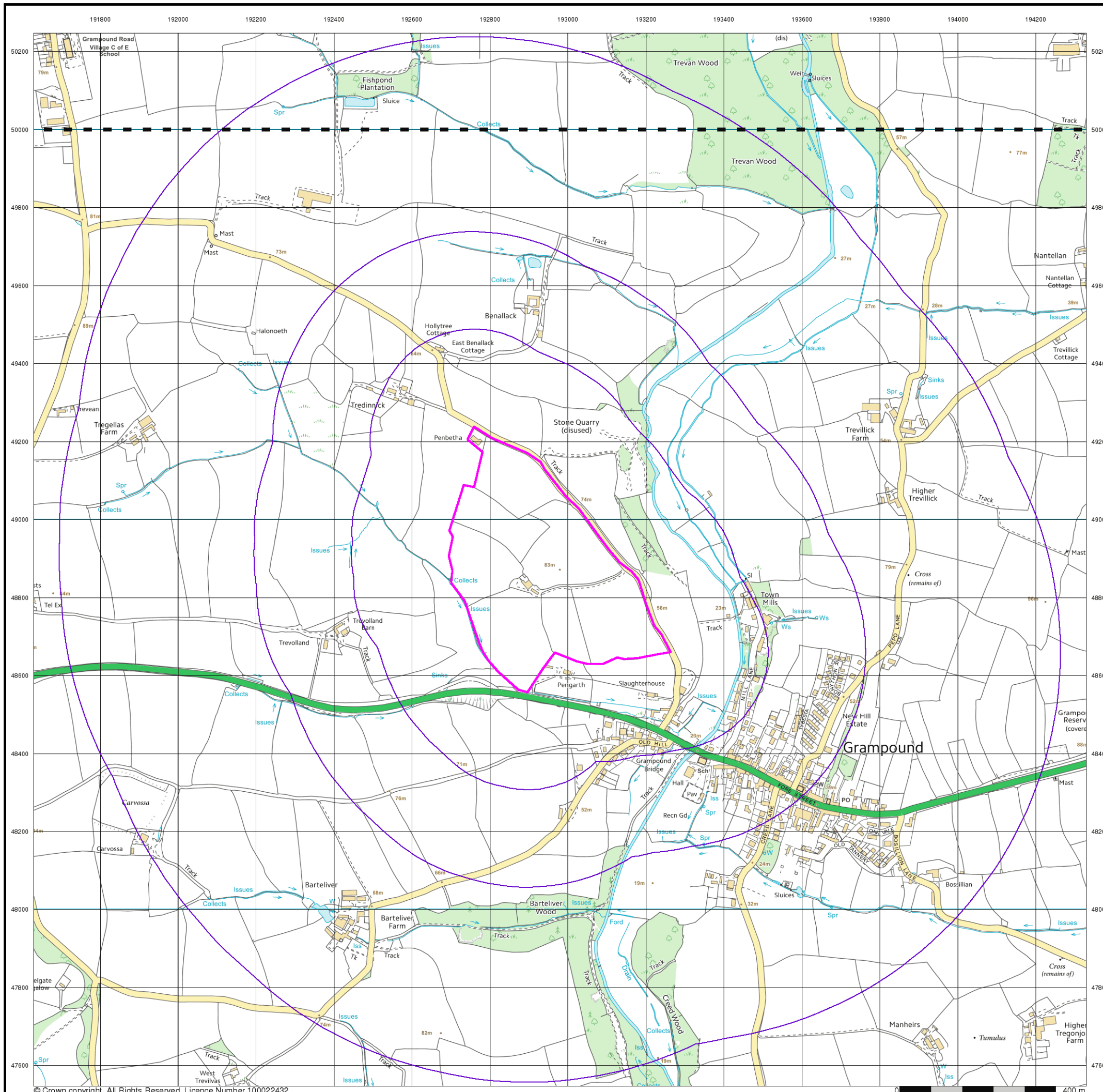


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 Slice: A
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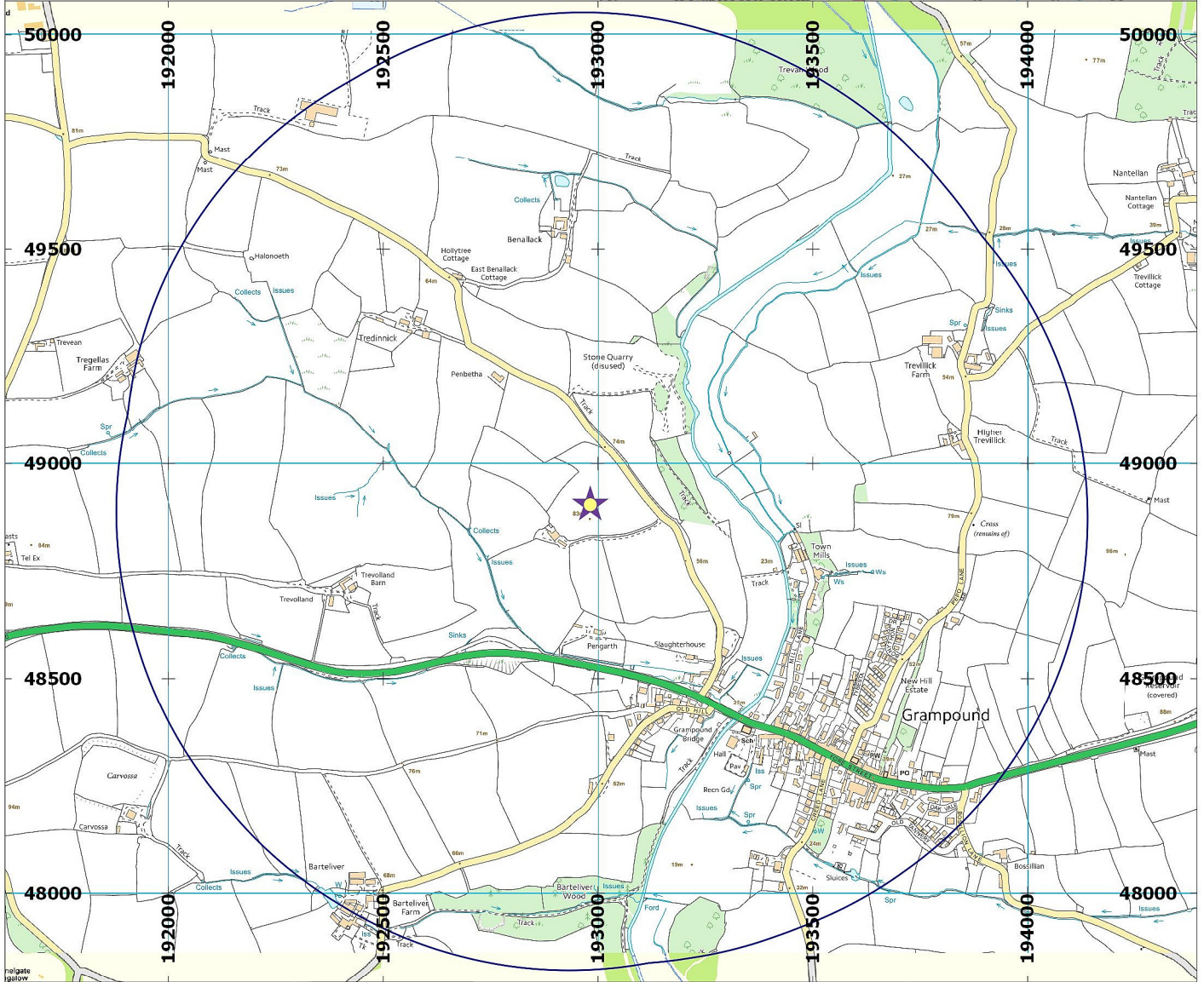
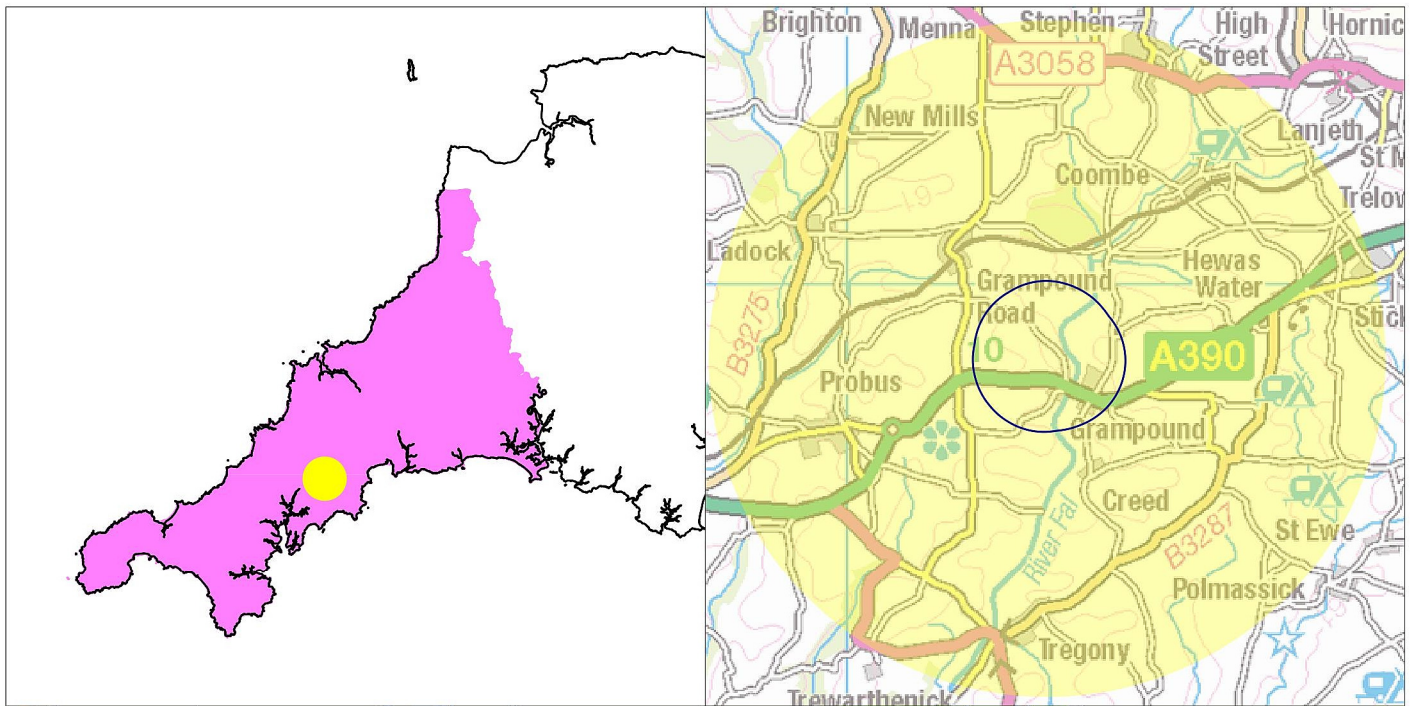
Site Details

Site at 192937,48901



APPENDIX 6: FIGURES





Site name: Penbetha Farm, Grampound
 Date: October 2014
 Drawn by: AB
 Scale: Varies

- Cornwall
- 5km study area
- 1km study area
- ★ Proposed turbine

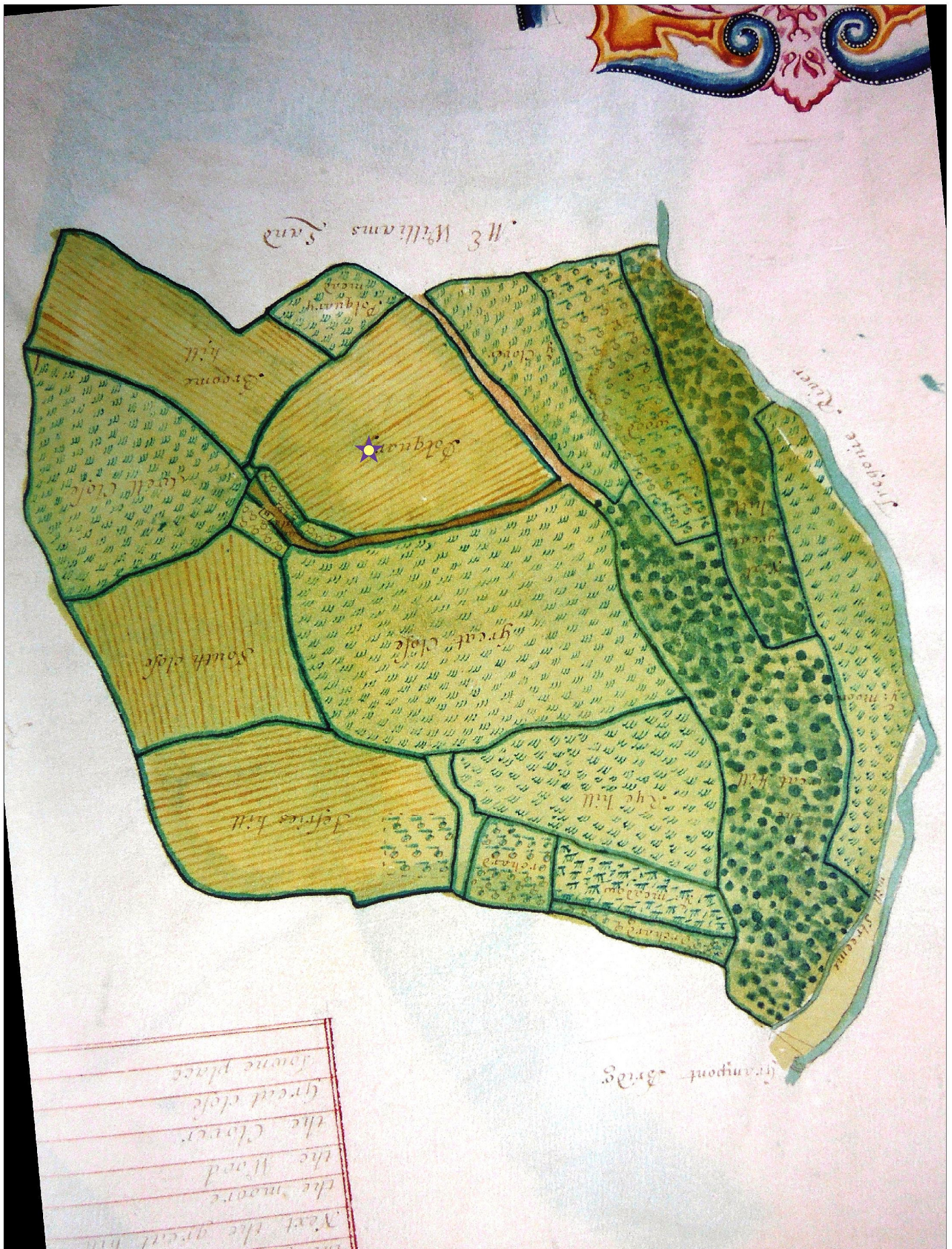


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Figure 1:
Site location



Site name: Penbeth Farm
 Date: October 2014
 Drawn by: AB
 Scale: 1:4250 @A4



Proposed turbine location

0 50 100 m



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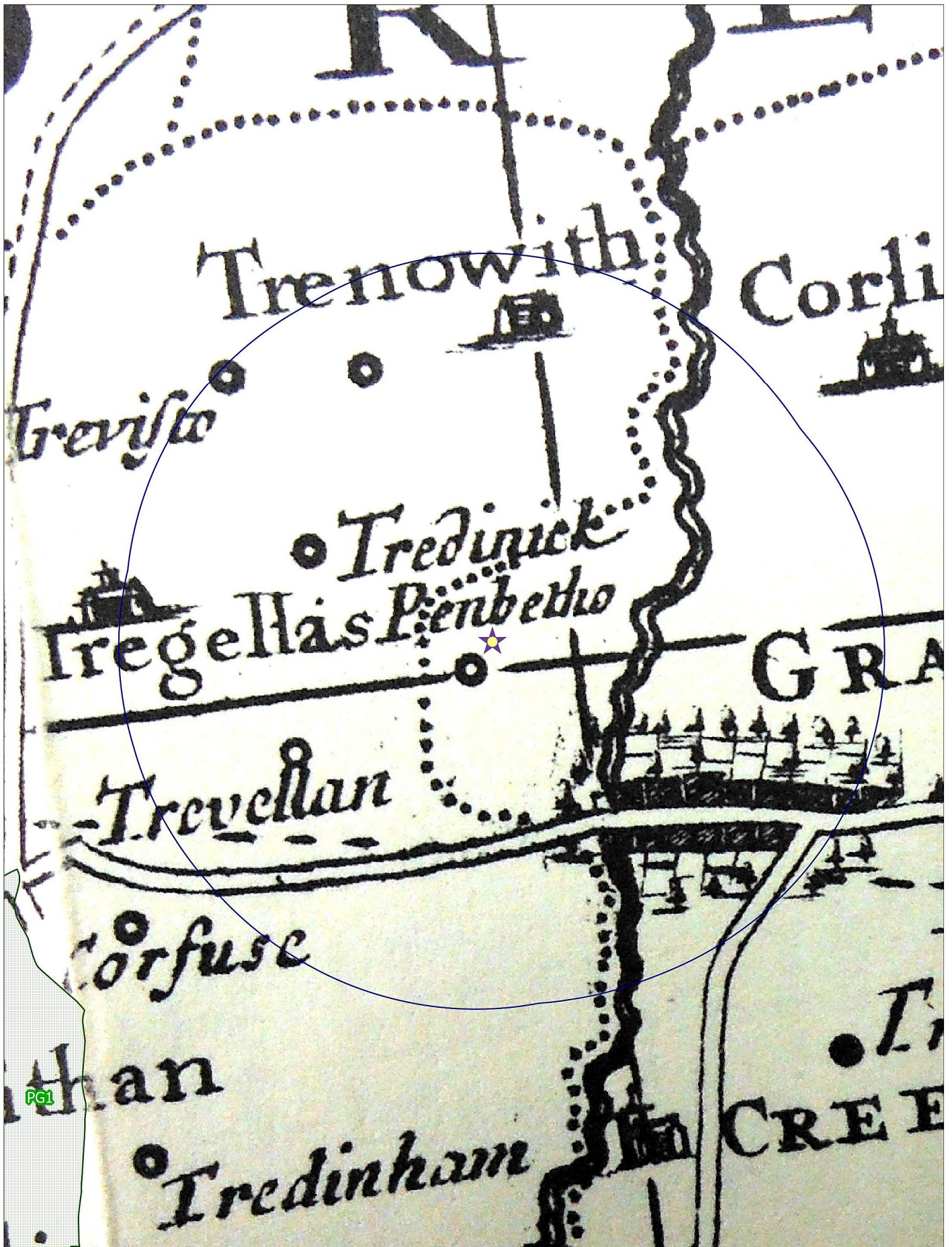


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Figure 2:
Map of Penbeth, Lanhydrock Atlas (Late 17th century)
(With kind permission of the National Trust/Lanhydrock)



Site name: Penbetha Farm
 Date: October 2014
 Drawn by: AB
 Scale: 1:15000 @A4



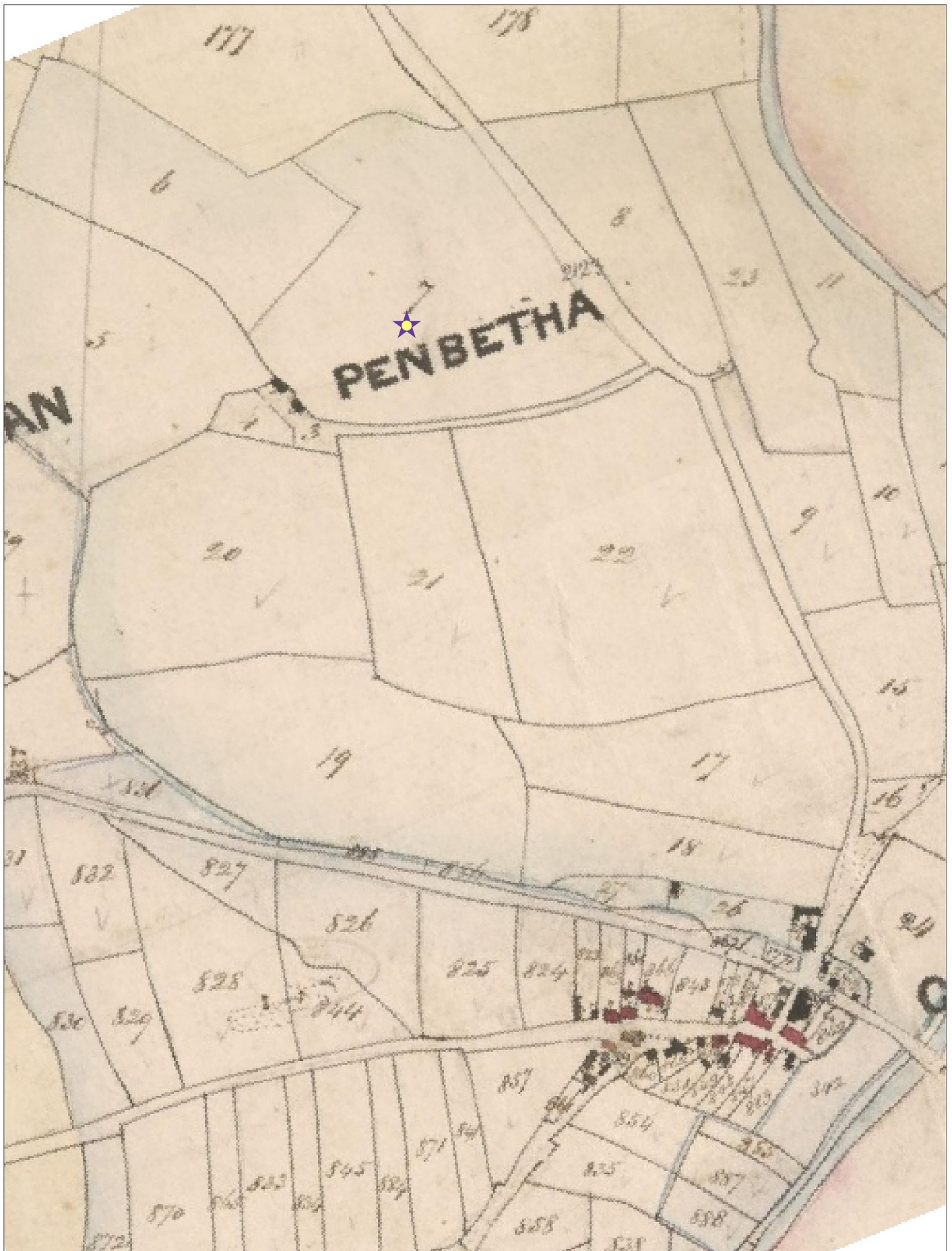
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Figure 3:
An extract from Joel Gascoyne's Map of Cornwall, 1699
(Reproduced with the permission of the Cornish Studies Library)



Site name: Penbetha Farm
 Date: October 2014
 Drawn by: AB
 Scale: 1:3500 @A4



Proposed turbine location

0 50 100 m



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Figure 4:
An extract the Grampound Tithe Map, 1840
(© Cornish Studies Library. Reproduced with permission)



Figure 5: Archaeological Remains

-  Proposed turbine location
-  1km study area
-  Archaeological Remains
-  NMP data

Information based upon Historic Environment Record Record Data © Cornwall Council.



Site name: Penbatha Farm
 Date: October 2014
 Drawn by: AB
 Scale: 1:8500 @A3

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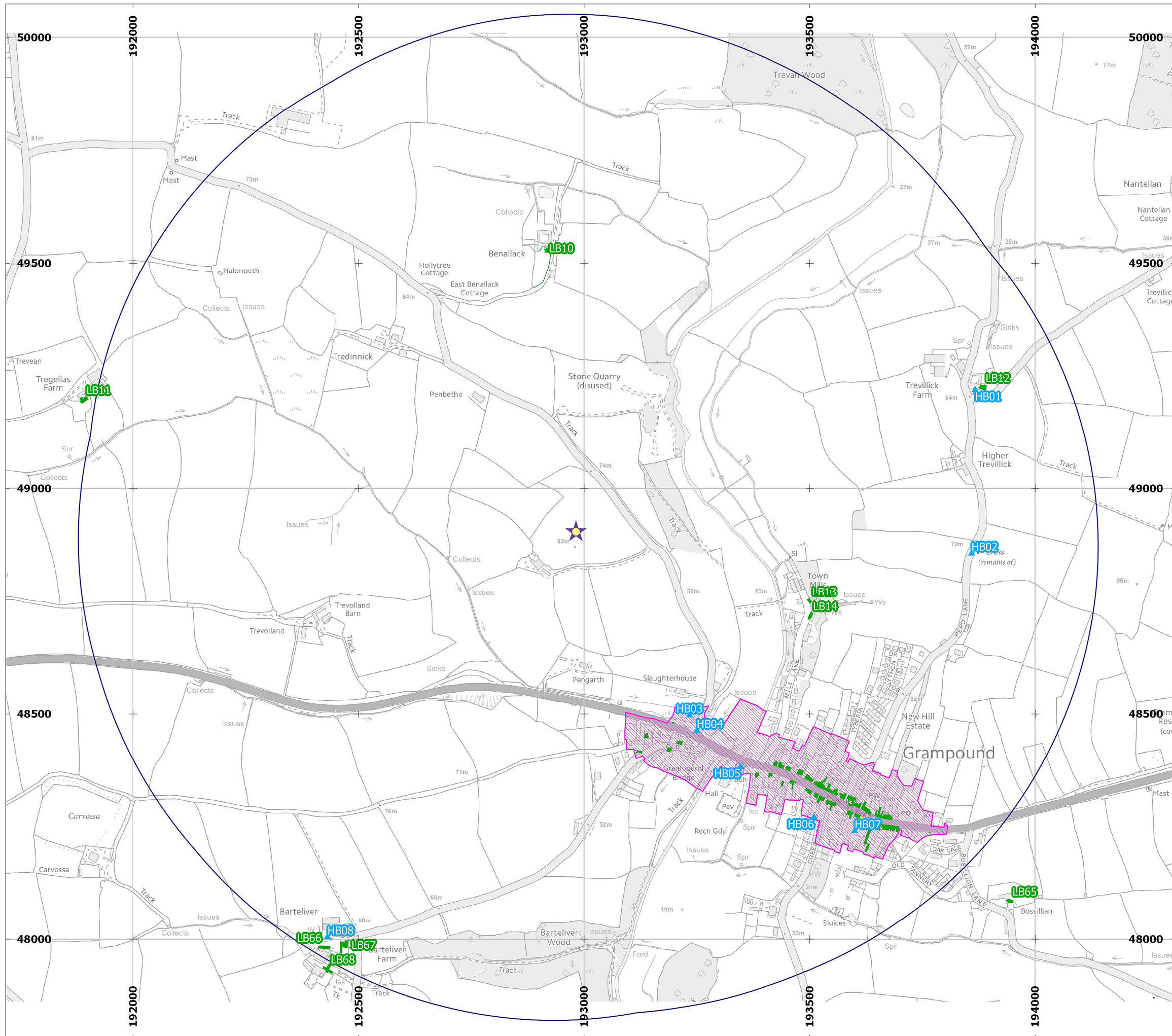








Figure 6: Historic Buildings

-  Proposed turbine location
-  1km study area
-  Conservation Areas
- Listed Buildings**
-  II
-  II*
-  Non- Designated Historic Buildings

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The most up to date English Heritage GIS data can be obtained from <http://www.english-heritage.org.uk>



Site name: Penbatha Farm
 Date: October 2014
 Drawn by: AB
 Scale: 1:8500 @A3

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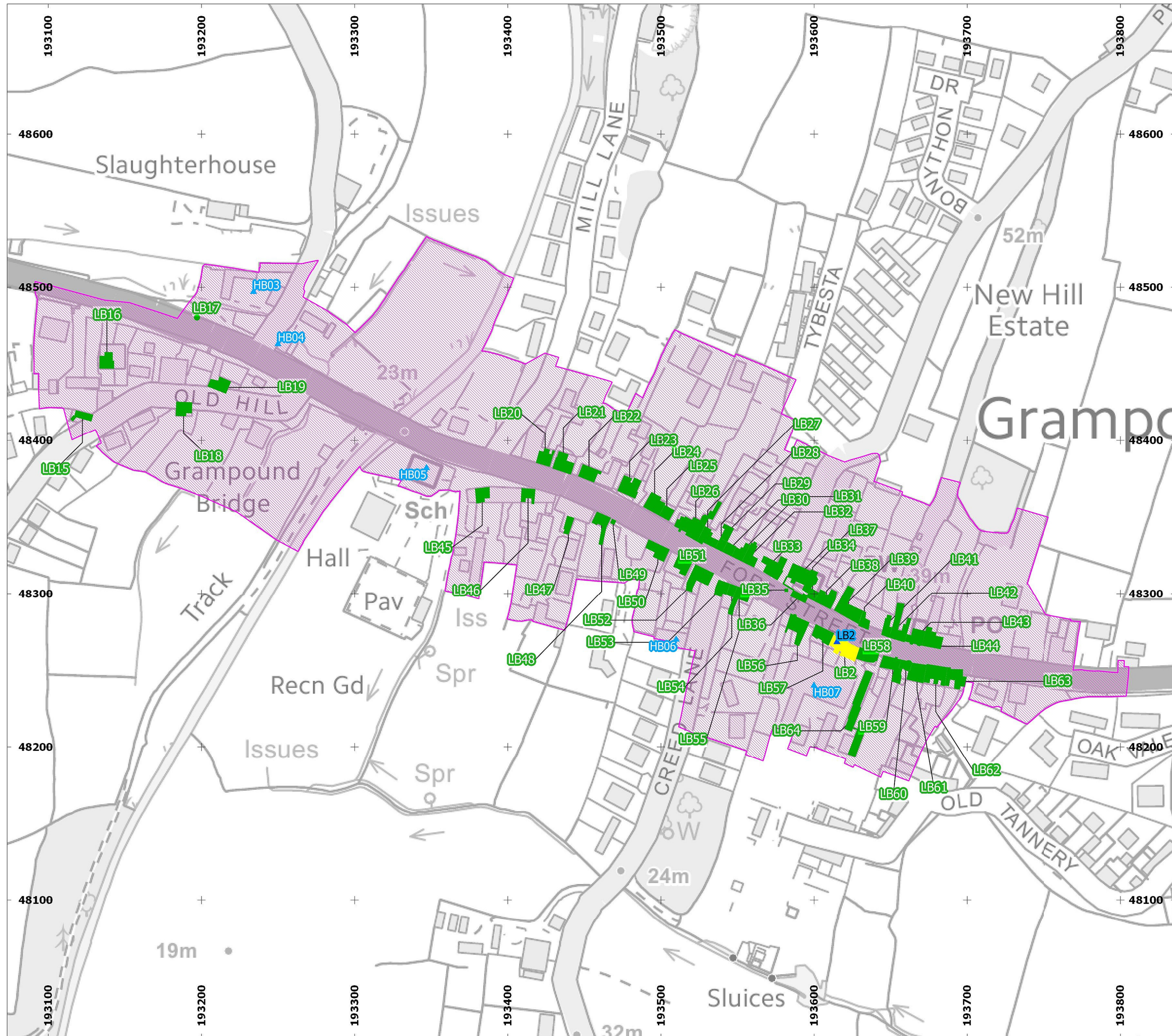
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Figure 7: Historic Buildings: Detail of Grampound Conservation Area



- Grade II Listed Building
- Grade II* Listed Building
- ▲ Non- Designated Historic Buildings
- Grampound Conservation Area

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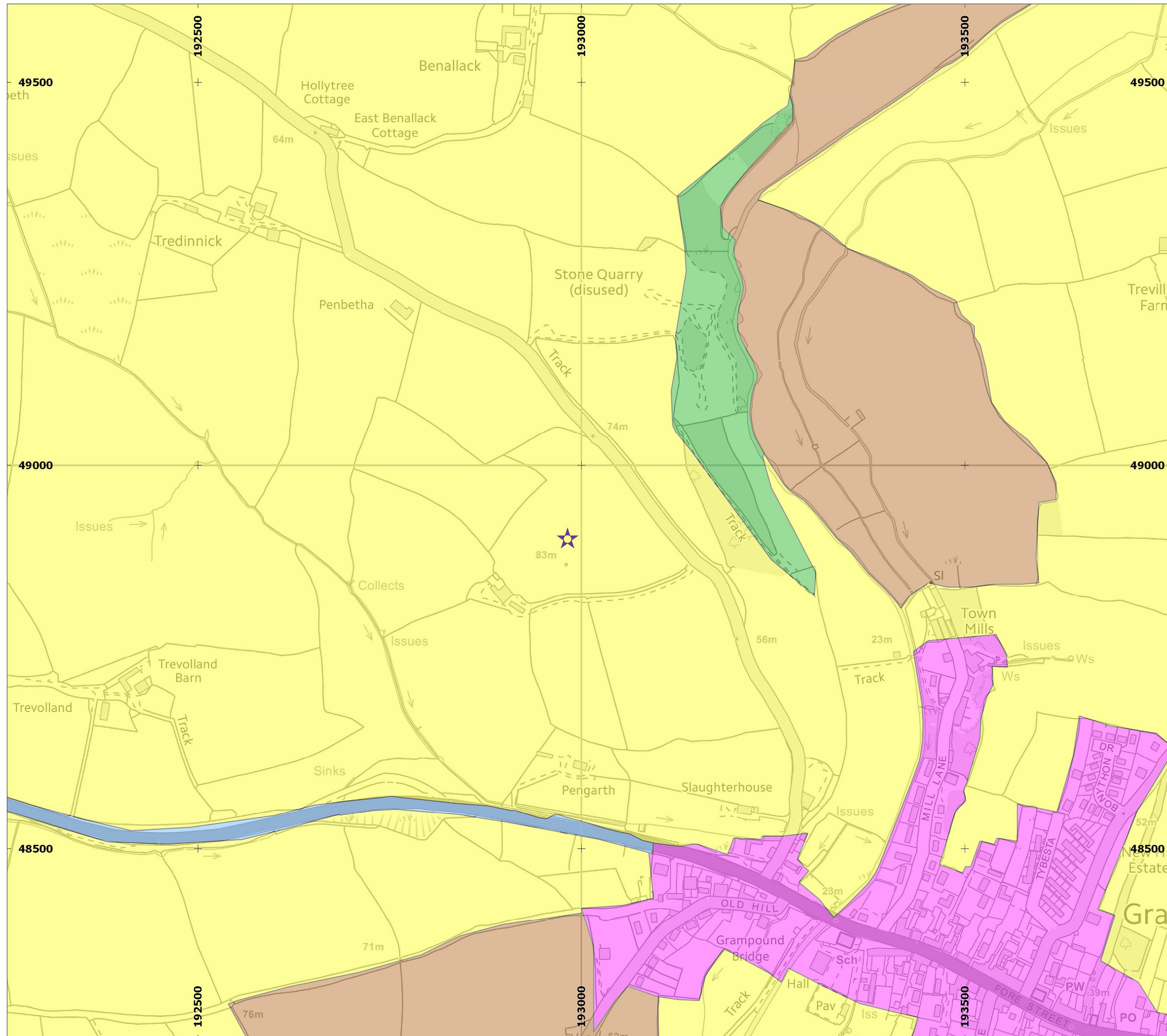
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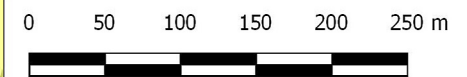
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Figure 8: Historic Landscape Characterisation



-  Proposed turbine location
-  ANCIENTLY ENCLOSED LAND
Farmland: Medieval
-  COMMUNICATIONS
Communications
-  MODERN ENCLOSED LAND
Modern Enclosed Land
-  SETTLEMENT
Settlement: 20th century
-  WOODLAND
Woodland (deciduous)

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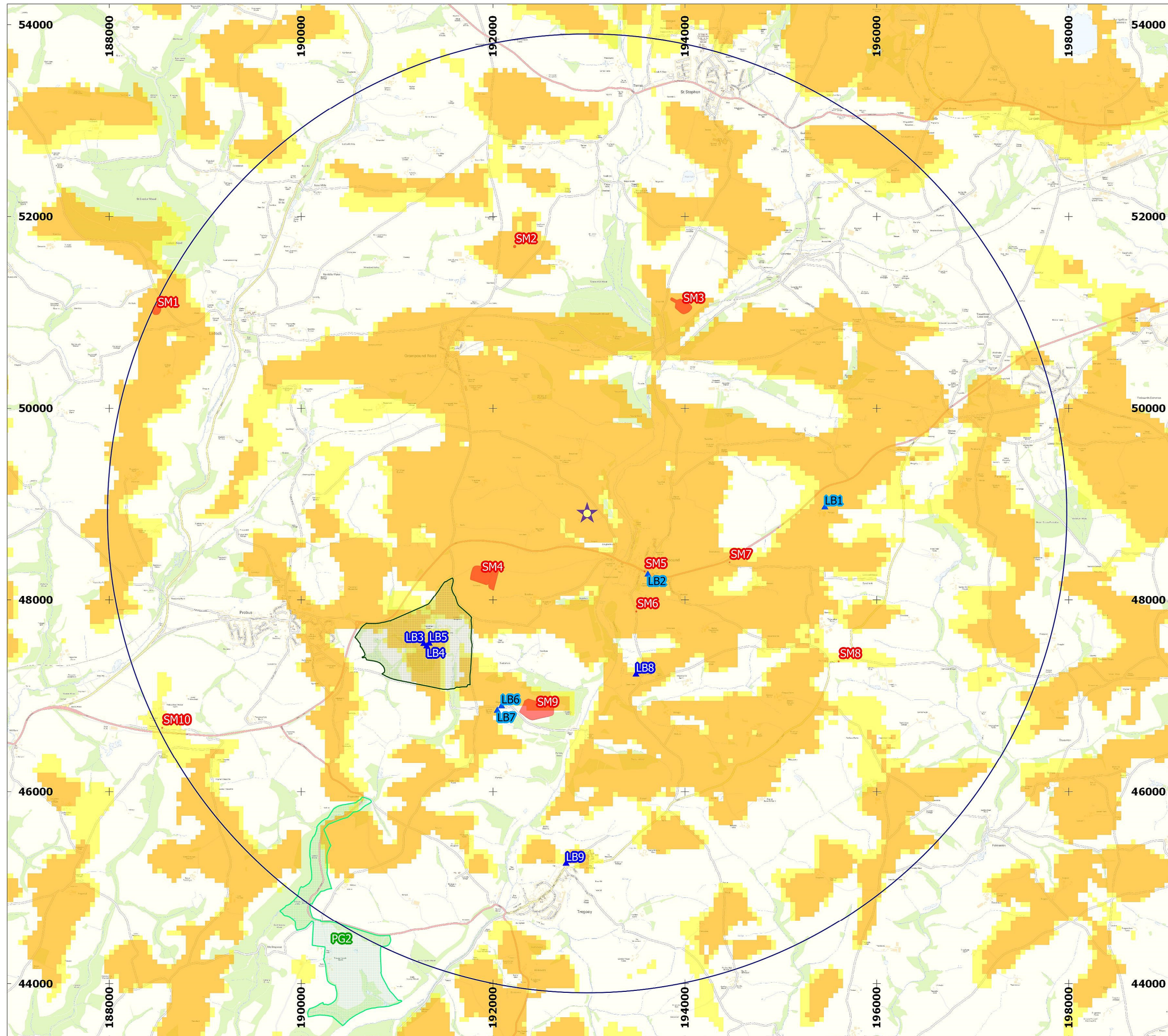


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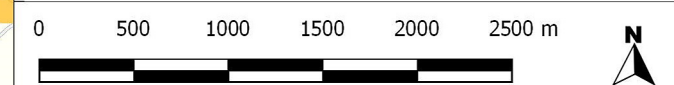
Figure 9: ZTV and assessed assets



- ★ Proposed turbine location
- 5km study area
- Scheduled Monument
- ▲ Listed Building (Grade I)
- ▲ Listed Building (Grade II*)
- ▨ Conservation Area
- ▭ Registered Park and Garden (Grade II*)
- ▭ Registered Park and Garden (Grade II)
- Hubs theoretically visible ('bare earth')
- Bladetips theoretically visible ('bare earth')

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Figure 10

View east towards the round at Penhale (SM1).



Figure 11

View east towards the round barrow north-west of Carnwinnick (SM2)



Figure 12

View south-west towards turbine location from the road adjacent to Resugga Castle (SM3), illustrating the potential screening effect of Trenowth Wood.



Figure 13

View from trackway adjacent to Carvossa (SM4) to the north-east towards Penbetha Farm (visible in left middle distance).



Figure 14

View east towards the Market Cross (SM5), Town Hall and St. Nun's Church



Figure 15

View north-west towards the proposed turbine location from the cross base on Creed Hill (SM6).



Figure 16

View north-west towards proposed turbine location from Nancor Cross (SM7)



Figure 17

View west towards Far Cross (SM8).



Figure 18

View north-west towards the Trelowthas Cross (SM10).



Figure 19

View north-east towards the screening belt at the edge of the parkland at Trewithen (PG1).



Figure 20

Long distance vista from the north entrance at Trewithen (PG1).

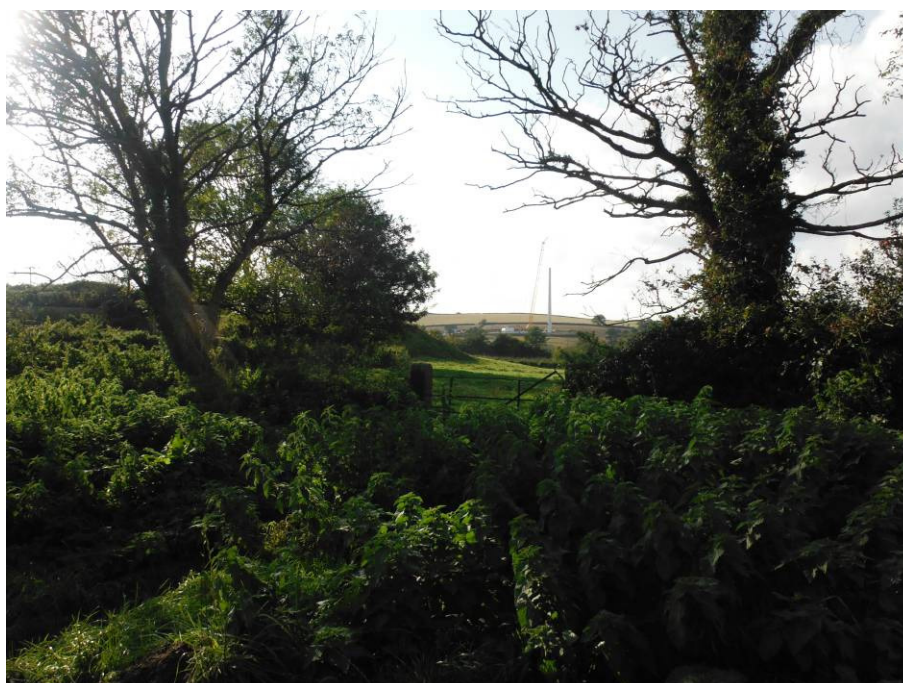


Figure 21

View west from Penans Farmhouse (LB1) towards the proposed turbine location.
One of the Garlenick turbines is under construction in the middle distance.



Figure 22

View west along Fore Street from the frontage of Manor Houses (LB2).



Figure 23

View south-east towards Manor Houses (LB2).



Figure 24

View north-west towards medieval barn (LB6) with farm complex beyond.



Figure 25

View north from churchyard of Church of St. Crida, Creed (LB8).



Figure 26

View south-east towards the Church of St. Crida (LB8) from the old turnpike road on Old Hill

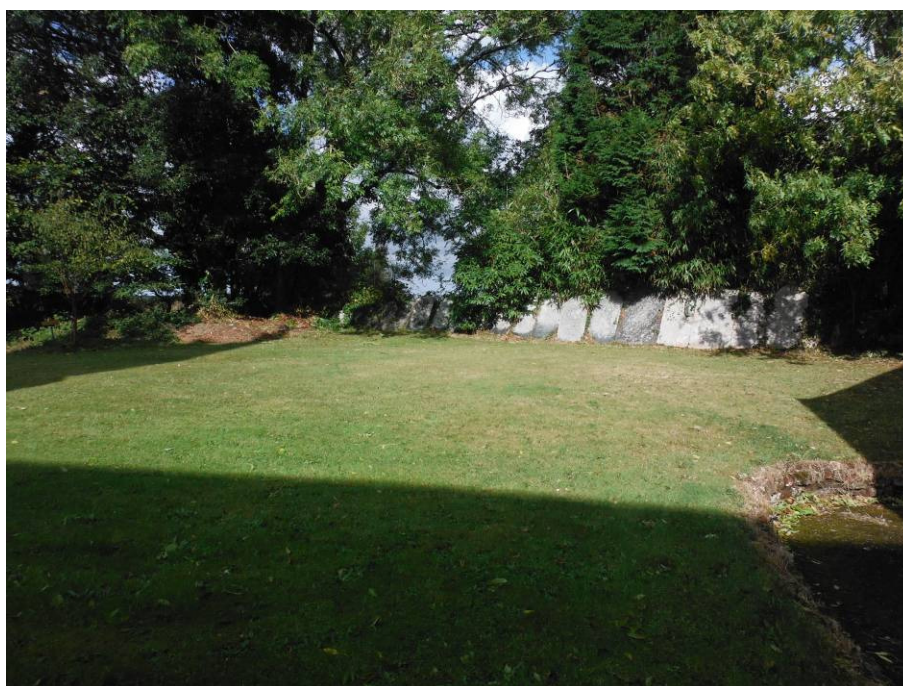


Figure 27

View north from the Church of St. Cuby, Tregony (LB9).



Figure 28

View west from the top of Fore Street, Grampound.



Figure 29

View north-west towards the Town Hall and St. Nun's Church



Figure 30

View north-west from Fore Street towards proposed turbine location



Figure 31

Glimpsed view towards the back plot of the Manor Tannery off Fore Street



Figure 32

View south-west from the bridge towards Old Hill.



Figure 33

View north-east towards Grampound from the upper western slopes.



Figure 34

View north-west towards Penbetha Farm from the trackway adjacent to the prehistoric earthwork at AR24.



Figure 35

General view of the proposed turbine location.



Figure 36

View east towards the modern farm buildings at Penbetha Farm



Figure 37

Old walling at Penbetha Farm