

Geophysical survey of land at Bodiniel Road, Bodmin: statement of archaeological implications

Historic Environment Projects, Cornwall Council, was commissioned by Mr W John, Head of Property for Cornwall Care, to carry out a geophysical survey of the site of a proposed care facility at Bodiniel Road, Bodmin (SX 0639 6764) (Fig 1). The purpose of the survey is to inform the developer and the planning process. The survey area covers an area of approximately 2.3 ha and is located on the outskirts of the historic settlement of Bodmin.

The area of the proposed development falls into a historic landscape character zone classified as Anciently Enclosed Land (Cornwall County Council 1996). Anciently Enclosed Land is defined as the agricultural heartland, with farming settlements documented before the seventeenth century AD and with patterns of enclosed fields dating from the medieval period or earlier which are morphologically distinct from the generally straight-sided fields of later enclosure. In the current instance fields with boundaries clearly deriving from the enclosure of medieval cultivation strips surround the site on the north, east and west. It has been found that Anciently Enclosed Land frequently contains buried archaeological remains dating to the medieval and earlier periods. The proposed development is therefore situated within an area which has the potential to contain buried archaeological remains.

The Cornwall and Scilly Historic Environment Record (HER) locates two features within the bounds of the site, both deriving from transcription of air photographs taken in 1989 and 1994:

- PRN 71139 A removed field boundary, attributed in the HER record to the medieval period.
- PRN 71140 Traces of ridge and furrow ploughing, typically associated with medieval agriculture.

Further assessment, however, including inspection of the air photographs, indicates that the supposed 'ridge and furrow' represents contemporary agricultural activity such as mowing or rolling of pasture and that the removed boundary was first depicted on the 2nd edition Ordnance Survey 25in: 1 mile map of c 1907 and is therefore of late nineteenth- or early twentieth-century origin.

In October 2011, a geophysical survey (magnetic) was carried out over the site by ArchaeoPhysica Ltd, who provided a report detailing the results of their survey (ArchaeoPhysica 2011).

This statement is intended to assess the results from the geophysical survey and to present the implications for further archaeological mitigation.

Summary of the results

The geophysical survey of the site at Bodiniel Road (Figs 2 and 3) identified a number of potential archaeological features across the site, most of which are likely to represent removed historic boundaries. A linear feature towards the western side of the site, lying parallel to Bodiniel Road, may represent an earlier track which the road has superseded.

Steel fencing, a cowshed and power lines produced strong background magnetic disturbance, particularly around the north-eastern and eastern margins of the site (Fig 3). Vegetation and the steep topography prevented survey in the small field at the southern end of the site.

The following features were identified by the geophysical survey (Fig 3):

- 1** A linear anomaly, almost certainly to be identified with a removed field boundary. A boundary in this position is shown on the 2nd edition Ordnance Survey 25in: 1 mile map of c 1907 (Fig 6). This boundary is not shown on earlier maps (Figs 4 and 5) and therefore dates to the late nineteenth or early twentieth century. This is probably the removed boundary recorded from air photographs (PRN 71139).
- 2** An area of enhanced magnetic field lying across the southern end of the survey area is likely to represent greater depth of topsoil downslope. This may be interpreted as material which has built up as a positive lynchet above the southern boundary of the field.
- 3** An area of enhanced magnetic field running parallel to the southern edge of the surveyed field. This is interpreted by the geophysics report (ArchaeoPhysica 2011) as perhaps representing the fill of a ditch. This is aligned with the boundaries of the wider field system in the area (Figs 4, 5 and 6) and may represent a feature derived from a subdivision between parcels of strips within the medieval field system.
- 4-5** An area of enhanced magnetic field suggesting the fill of a ditch or other linear feature running parallel to the western boundary of the field and Bodiniel Road. This could represent a former field boundary or a path. The latter (or a combination of the two) is perhaps more probable: the present route of Bodiniel Road itself appears to cut through the medieval field pattern and this may represent an earlier alignment of the route. (NB. It is clear from comparison of the title map (Fig 4) and the 1st edition Ordnance Survey 25in: 1 mile map (Fig 5) that some realignment of roads took place in the area, probably at the time that the new Bodmin gaol was constructed in the 1840s and 1850s.)
- 6** A linear anomaly, possibly representing the fill of a ditch. This may represent a subdivision of the medieval field system similar to that suggested for feature 3 above. It also coincides closely with the location of a field boundary first shown on the 2nd edition Ordnance Survey 25in: 1 mile map of c 1907 (Fig 6), however, and is likely to be contemporary with feature 1. The alignment shown by the geophysical survey appears to differ slightly from that shown on the map, however, allowing the possibility that this is an earlier feature.

- 7** A small focus of enhanced field, possibly indicating the fill of a pit but perhaps more probably the presence of a ferrous object. This lies on or close to the alignment of feature 6 and could represent an object abandoned on the former field boundary.

Further archaeological recording

Anomalies 2, 3, 4, 5 and 6

Little is known in detail of the features which subdivided medieval cultivation in lowland Cornwall, or of the way in which the landscapes formed by medieval strips were subsequently adapted; such features would be regarded as of Local or Regional Importance. If the features represented by these anomalies are likely to be affected by development of the site an appropriate programme of archaeological recording is recommended. This would need to be undertaken as part of the planning process. A written scheme for archaeological mitigation would need to be developed, to be approved by the Local Planning Authority in advance of the works proceeding. The scope of the written scheme should be developed under the guidance of, or to a brief set by, the Cornwall Council Historic Environment Planning Advice Officer.

This programme of recording might include:

- Archaeological monitoring of the area of the proposed development followed by targeted excavation and recording of significant archaeological features revealed by this process;
- Archiving, assessment, and analysis of the materials from the excavated sites;
- If appropriate, publication of results in an appropriate academic journal.

Field to the south of the area of geophysical survey

No specific information is available on the potential for archaeological features in this area of the site, although it also lies within Anciently Enclosed Land and is therefore considered to have potential for buried archaeology from the medieval period or earlier. The field was recorded as Gaol Field by the Bodmin tithe apportionment of c 1840, probably from proximity to the nearby eighteenth-century prison but possibly because there was some more direct association with it. There may therefore also be potential for post-medieval buried archaeology in this area.

If this area is likely to be affected by development of the site an appropriate programme of archaeological recording is recommended. This would need to be undertaken as part of the planning process. A written scheme for archaeological mitigation would need to be developed, to be approved by the Local Planning Authority in advance of the works proceeding. The scope of the written scheme should be developed under the guidance of, or to a brief set by, the Cornwall Council Historic Environment Planning Advice Officer.

This programme of recording might include:

- Archaeological monitoring of the area of the proposed development followed by targeted excavation and recording of any significant archaeological features revealed by this process;
- Archiving, assessment, and analysis of the materials from the excavated sites;
- If appropriate, publication of results in an appropriate academic journal.

References

Cornwall County Council, 1996. *Cornwall landscape assessment 1994*, Report prepared by CAU and Landscape Design Associates, Cornwall County Council, Truro

ArchaeoPhysica 2011, *Bodiniel Road, Bodmin, Cornwall: geophysical survey report*, Harewood End, Hereford (report BRB 111)

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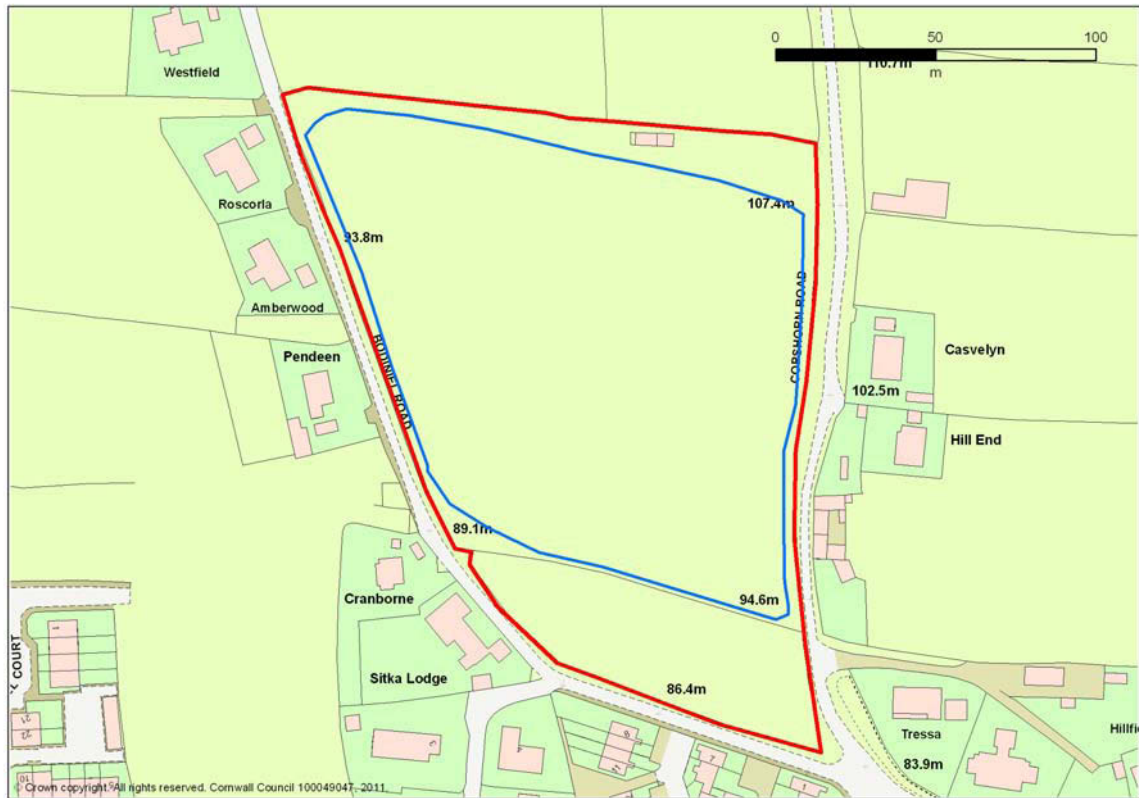


Fig 1 The site at Bodiniel Road, Bodmin: the area of geophysical survey is outlined in blue.

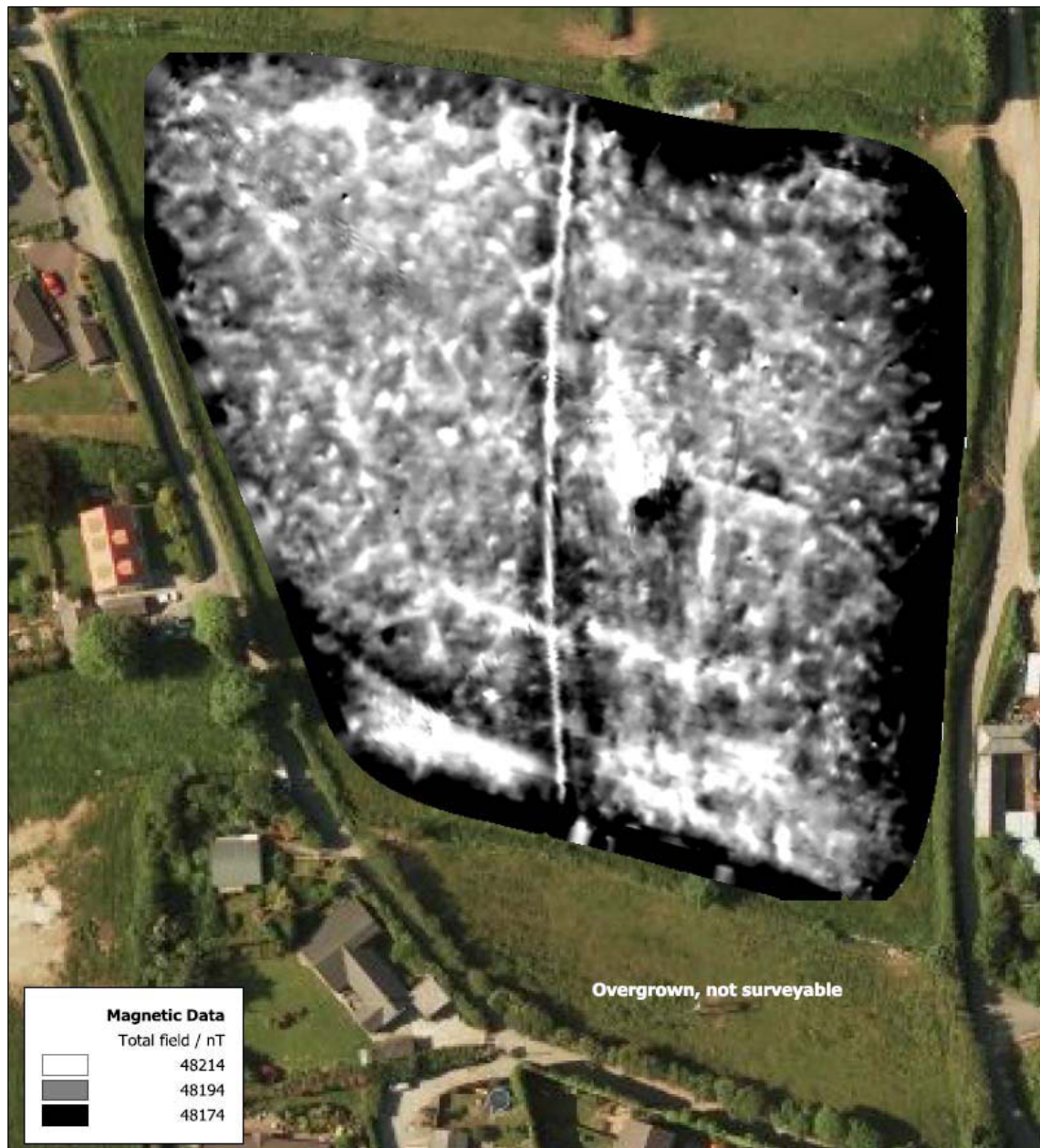


Fig 2 Land at Bodiniel Road, Bodmin: geophysical survey, greyscale results (ArchaeoPhysica 2011).

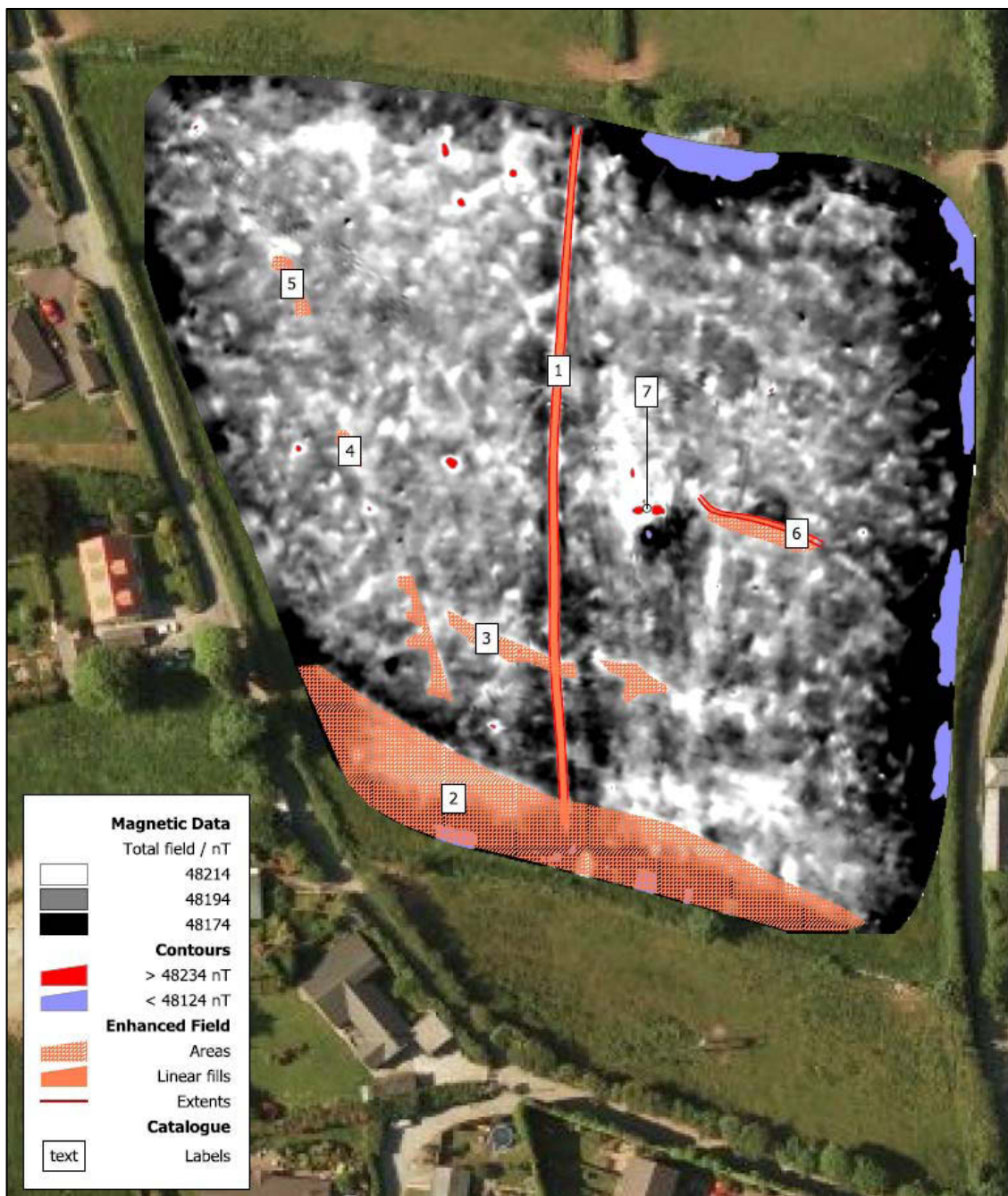


Fig 3 Land at Bodiniel Road, Bodmin: geophysical survey results, interpretation (ArchaeoPhysica 2011).

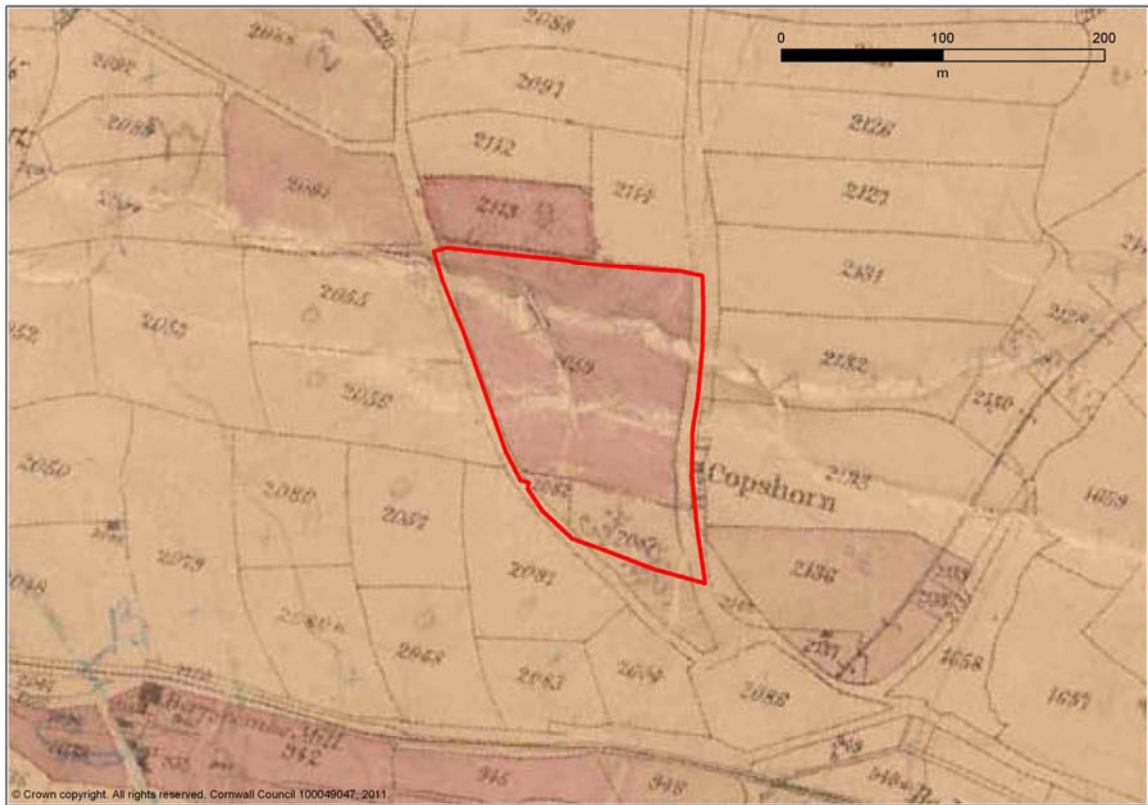


Fig 4 The site at Bodiniel Road, Bodmin, shown on the tithe map for the parish of Bodmin, 1841 (approximate survey area marked in red). This map shows the wider pattern in the surrounding area of field boundaries derived from medieval strip cultivation.

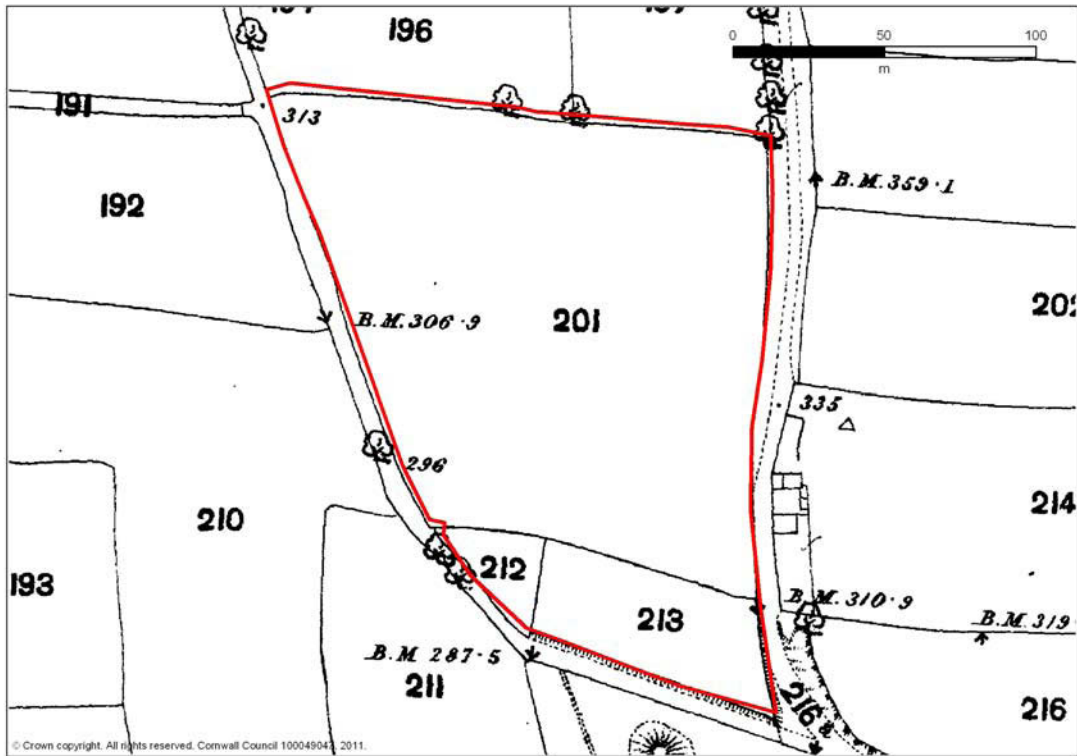


Fig 5 The site at Bodiniel Road, Bodmin, shown on the 1st edition Ordnance Survey 25in: 1 mile map of c 1880 (approximate survey area marked in red).

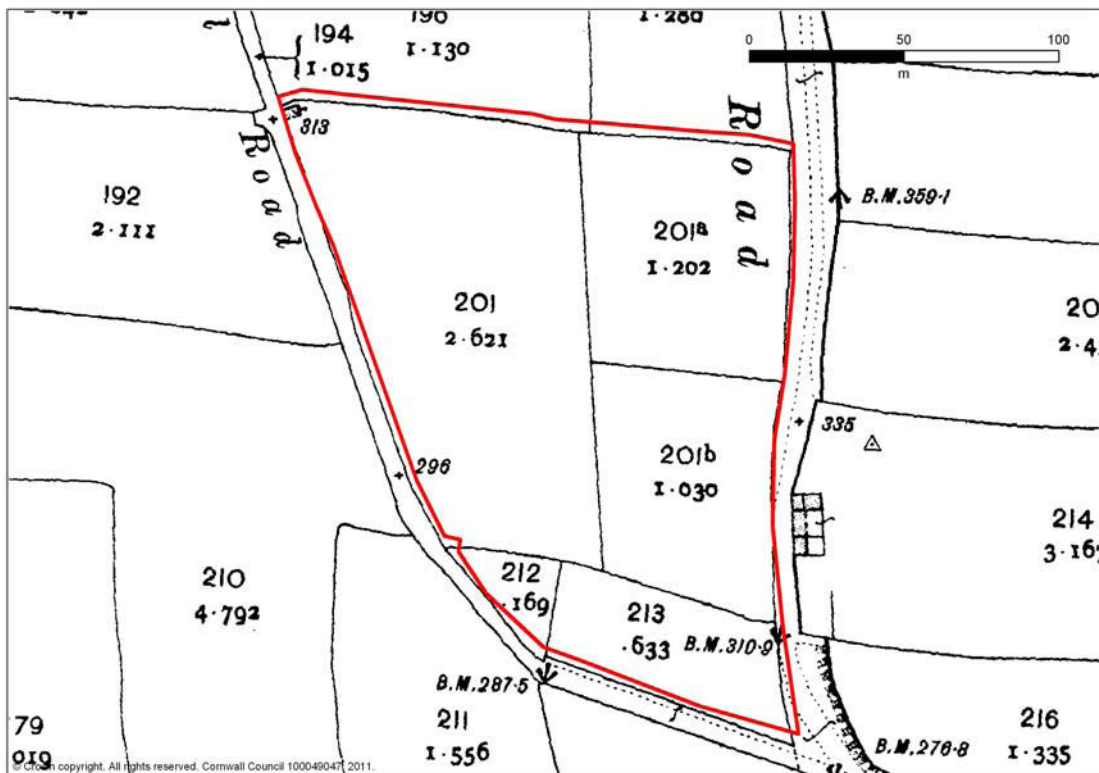


Fig 6 The site at Bodiniel Road, Bodmin, shown on the 2nd edition Ordnance Survey 25in: 1 mile map of c 1907 (approximate survey area marked in red).