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# A Geophysical Survey of Bourne Park, Bridge Kent.

Project No. CBAS0548

by
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***Summary***

*The survey revealed a few potential archaeological features within the survey area, together with other areas of probable 'modern' rubbish disposal. Given the Roman remains found nearby, it is possible that these features may be associated with them, albeit at a lower level of activity.*

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## 1.0 Introduction

**1.1** Chris Butler Archaeological Services Ltd has been commissioned by Strutt & Parker LLP to carry out an Archaeological Geophysical Survey of land at Bourne Park, Bridge, Canterbury, Kent, in order to establish the likely presence or absence, and importance of any archaeological remains, in connection with a planning application for the construction of two Ha-has in the grounds of the park.

**1.2** Ha-ha A is to be approximately 57m in length and is to be situated on the south west side of the house. Ha-ha B is to be approximately 45m in length, and is to be situated on the north east side of Bourne House. Bourne House is located around 1km south west of Bridge, (Fig. 1). The site, centred on TR 1815 5320, is just under 0.5 hectares in size and is located at 40m OD. The ground drops away to the north east, and the site overlooks the Nail Bourne, and Bourne Park.

**1.3** The geology of the site, according to the Geology of Britain is Lewes Nodular chalk formation with superficial deposits of Head - clay, silt, sand and gravel[1].

**1.4** A planning application (CA/14/01726) was submitted and has been approved subject to an appropriate programme of archaeological work being undertaken.

**1.5** This report covers an Archaeological Geophysical Survey of the site that was required in accordance with a brief issued by the local planners. It has been prepared for submission to the local planning authority for approval. The survey consisted of a Magnetometry Survey on an established and surveyed Grid pattern positioned to expose the most likely areas of potential archaeology.

**1.6** The purpose of the Geophysical Survey is to determine whether there are any potential archaeological remains surviving on the site, that may be damaged or destroyed by the proposed development. The survey will also help to determine the likelihood of archaeological remains being present on the site, with a view to establishing whether any further archaeological intervention is required.

**1.7** The report includes historical information from Wallace, L. M. Paul S. Johnson, P. S. & Strutt, K. D. 2012: *Bourne Park (Bishopsbourne) Geophysical Survey 2012 Results*.

[1] http://mapapps.bgs.ac.uk/geologyofbritain/home.html Accessed 03/11/14

## 2.0 Archaeological & Historical background

**2.1** Several barrows have been found in the surrounding area dating to the prehistoric period. There are two adjacent ring ditches within the park, alongside other earthworks and linear features. An Iron Age silver coin (TR 15 SE 331) was found on the site. Four other Iron Age coins have been found in the surrounding area[2].

**2.2** Several cremation burials of Romano-British date were discovered in 1846, during the excavation of the artificial pond north east of the cricket pitch[3]. A variety of Roman artefacts were recovered from the surrounding area by metal detecting, and full details of these and the large number features including buildings and enclosures dating to this period found in a geophysics survey are described fully in (Wallace *et. Al.*2012).

**2.3** An early Medieval barrow cemetery was found in 1771 on Hanging Hill within the Park near to the Roman road. Three mounds were excavated in the mid-19th century. Approximately 100 Saxon burials were excavated by Paul Wilkinson between 2003 and 2006 (Wilkinson nd). Another probable Saxon barrow is located on the eastern side of the A2 and nine Saxon barrows containing ten chalk-cut graves were excavated in 1771 on the western side of the Canterbury-Dover road. Another Anglo-Saxon cemetery excavated c. 1973–4 lies to the south, east of Bishopsbourne village[4]. A full list of the artefacts of this date recovered can be found in (Wallace *et. Al.*2012).

**2.4** In the Domesday Book, Bishopsbourne is listed as 'Burnes', a manor held directly (in demense) by the Archbishop of Canterbury Christ Church. It had 64 villeins and 53 bordars with 30.5 ploughs as well as a church and two mills. The manor rendered L20 in geld (tax) in 1066 and L30 in 1086. The royal estate at Faversham was of comparable size and Eastry (for which Bishopsbourne was exchanged in 811) was actually smaller in 1086. Only Dartford, Aylesford, and Milton Regis (held directly by William the Conqueror) were significantly larger in 1086. Bishopsbourne was, therefore, one of the most important non-royal rural estates of the early Medieval period in Kent. The 13th-century church of St. Mary the Virgin lies c. 500 m southeast of the 'villa' buildings and an earlier building (i.e. one standing in 1086) is that mentioned in the Domesday Book. The village has long been dominated by the manor of Bourne Park[5].

**2.5** Bourne Park House is a Grade I listed building, originally called Bourne Place. The present building was built by Sir Anthony and Dame Elizabeth Aucher in 1701 on the site of an older building of which the original owners were the Bourne family. A large rectangular mansion of two storeys, attic and basement in red brick with hipped tile roof and wooden

[2] http://www.arch.cam.ac.uk/research/projects/canterbury-hinterland/chp-images/bpk12-report-jan-2013-smaller.pdf Accessed 03/11/14
[3] *ibid*
[4] *ibid*
[5] *ibid*

modillion eaves cornice. The entrance front has 13 windows and six dormers. The central portion of five windows projects slightly with a pediment over containing Venetian attic window. Windows with stone keystones and hung sashes with glazing bars. Stone stringcourse and rusticated quoins to each of the three sections. The wings have three dormers each with pediments, the centre of each group of three having a segmental pediment, the outer ones triangular. Central doorway with fluted Ionic pilasters, curved pediment containing a cartouche and door of eight fielded panels at the head of eight steps edged by a stone wall which is continued in brick in front of the basement forecourt interspersed with stone piers. The west or garden front is similar without the basement forecourt or the central doorway and has only five dormers, all with triangular pediments. The north and south fronts have four windows each, the north front having a small porch. The interior was altered in 1848, but contains a good C18 staircase, panelling and ceilings[6].

**2.6** Bourne House can be seen on the first edition 1875 OS map (Fig. 2), as can Bridge. Both Bourne House and Bridge can be seen on the 1908 edition OS map (Fig. 3), and Bishopsbourne is also visible by this time. Continued growth can be seen in Bridge by the 1975 edition OS map (Fig. 4), However Bourne Park remains largely unchanged.

[6] Country Life articles, Volume 51, page 602 and 636

## 3.0 Methodology

**3.1** The proposed locations of the two Ha-Ha's are situated around 100m apart (Fig. 5). Each was surveyed separately with the accessible area immediately in front of each proposed Ha Ha being divided into two 40m squares, with the intention of identifying any potential archaeological remains in the area affected by the Ha Ha, and also identifying any possible archaeological features which may be running into the area affected.

**3.2** Conditions on the day were sunny and dry, the ground was damp but not soft after the rain of the previous days. Wire fencing along the northern and western edges of Area A and western edge of Area B affected the results of the survey in those areas. Two trees and undergrowth affected the area available for survey in Area A, and a Pit was noted just off the southern edge of Area A. There were also the remains of a number of bonfires.

**3.3** The survey was carried out using a Bartington Grad601-2 fluxgate gradiometer within 40m x 40m grids. The grids were set out using a Topcon GTS 211D on an arbitrary grid. Field boundaries were partly surveyed to enable the overlay of the survey results onto an OS base map / aerial mapping. The sample rate was four readings per metre along lines spaced 1m apart. The grids were walked in a NE-SW orientation.

**3.4** The data was processed using Snuffler geophysics software using zero mean line destripe filters, followed by interpolation from 1m x 0.25m samples to 0.5m x 0.25m. The display threshold is +/- 2 nT.

**3.5** The report will be completed within 60 working days of the completion of the survey. The report and its associated plans, illustrations and photographs will be supplied to the Kent Historic Environment Record (HER) in a digital format agreed, in advance, with the County Council.

## 4.0 **Survey Results** (Figs. 6 - 9)

**4.1** The results for the survey areas are shown in Figs. 6 & 8 and are interpreted in the Interpretation Diagrams in Figs. 7 & 9. Different features, revealed by the survey, are also colour coded in Figs. 7 & 9; Red denotes areas of modern metal interference (fence lines etc), which have little significance to the survey aims, Purple areas are metal contamination, geological or areas of burning, probably non-archaeological, and Green could be potential archaeological remains, Grey denotes areas where no results were obtained.

**4.2** Area A, to the SW :

The magnetic response from the surrounding fence is shown in red. The purple areas are metallic dipole responses. The larger area is a group of small dipoles, and may be a rubbish dump of some sort, from an unknown period, but probably not earlier than the date of the house. The two smaller areas are large dipoles from single metal objects. The green features are not metallic in nature and may be a pit and short section of ditch.

**4.3** Area B, to the NE :

The magnetic response from the surrounding fence is shown in red. Purple shows areas of metal contamination similar to that found in area A and is also likely to be a spread of rubbish. Amongst this, shown in green, is a possible archaeological feature. Its form is amorphous, seemingly a pit with a long tail and in-situ burning. The maximum field strength of 25nT is significant, but is not strong enough to represent an industrial process.

## 5.0 Conclusions & Recommendations

**5.1** The survey did not reveal any significant archaeological remains. Area A revealed a possible pit and a short section of what may be a ditch, and Area B revealed another possible amorphous feature. The remaining responses probably represent areas of past burning and rubbish, perhaps associated with the disposal of rubbish from the house.

**5.2** Given the density of archaeology found in the nearby survey[7], it seems very likely that these features are archaeological in nature and represent a continuation of the nearby Roman activity into this area, albeit seemingly at a lower density. It is also possible that some features may not be revealed by a geological survey.

**5.3** The survey did not produce any significant results in the area surveyed, but did find evidence of potential archaeology. It is therefore recommended that a Watching Brief or strip-and-map exercise should be carried out to ensure that any archaeological remains present are investigated and recorded.

[7] http://www.arch.cam.ac.uk/research/projects/canterbury-hinterland/chp-images/bpk12-report-jan-2013-smaller.pdf Accessed 03/11/14

## 6.0 Acknowledgements

**6.1** We would like to thank Strutt & Parker for commissioning this geophysical survey. Andy Bradshaw helped with the geophysics survey and undertook the Total Station survey. David Staveley processed the data and interpreted the results of the survey.

**6.2** The project was managed by Chris Butler for CBAS Ltd.

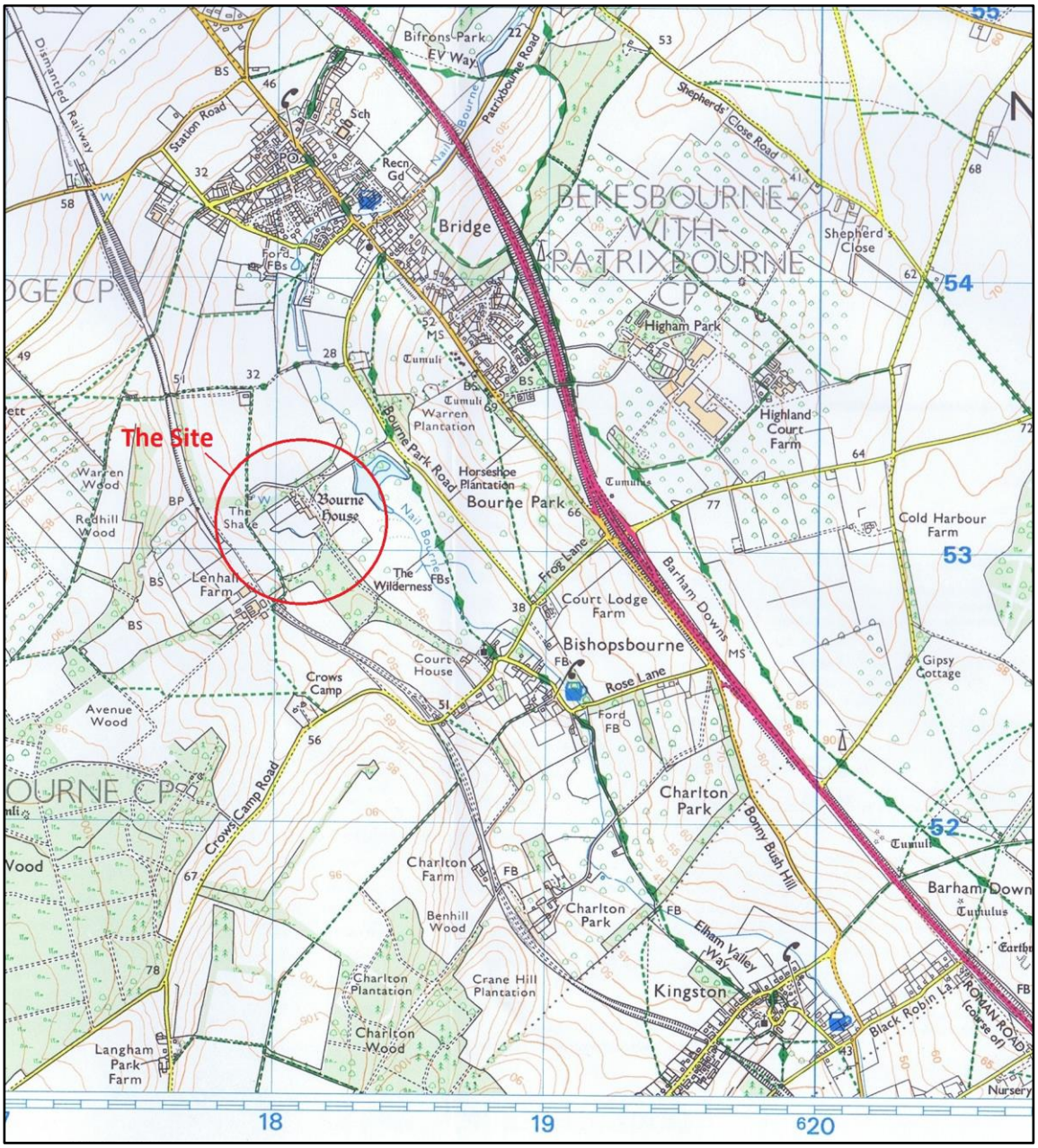


Figure 1: Bourne House: Site Location Map

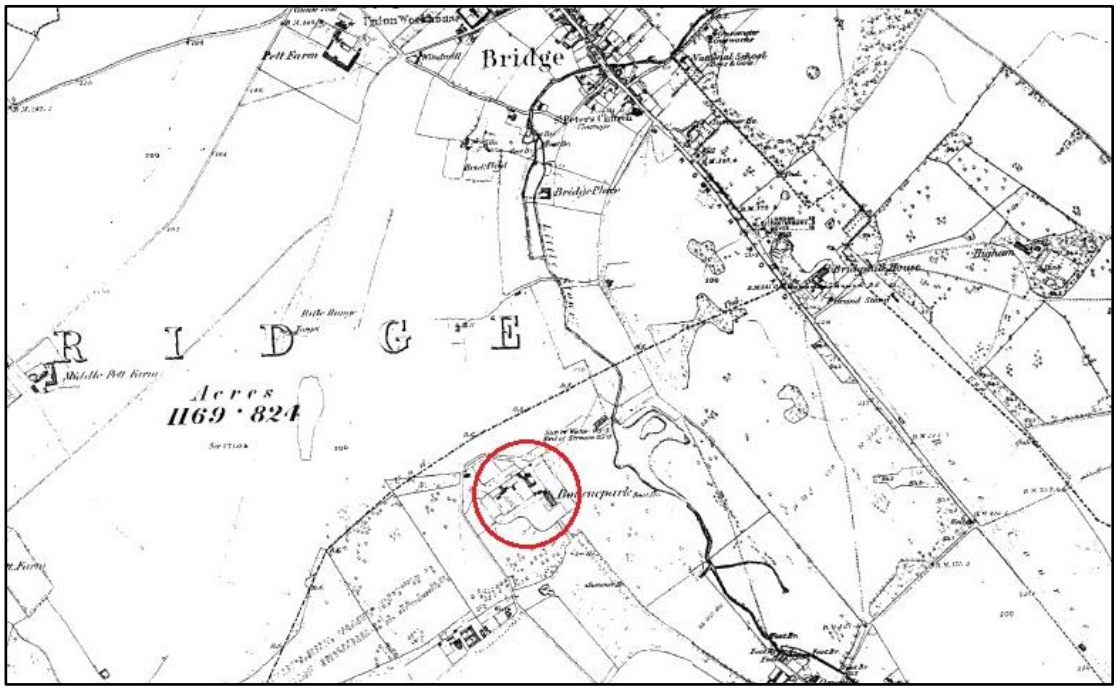


Figure 2: 1st Edition OS Map with Site Location

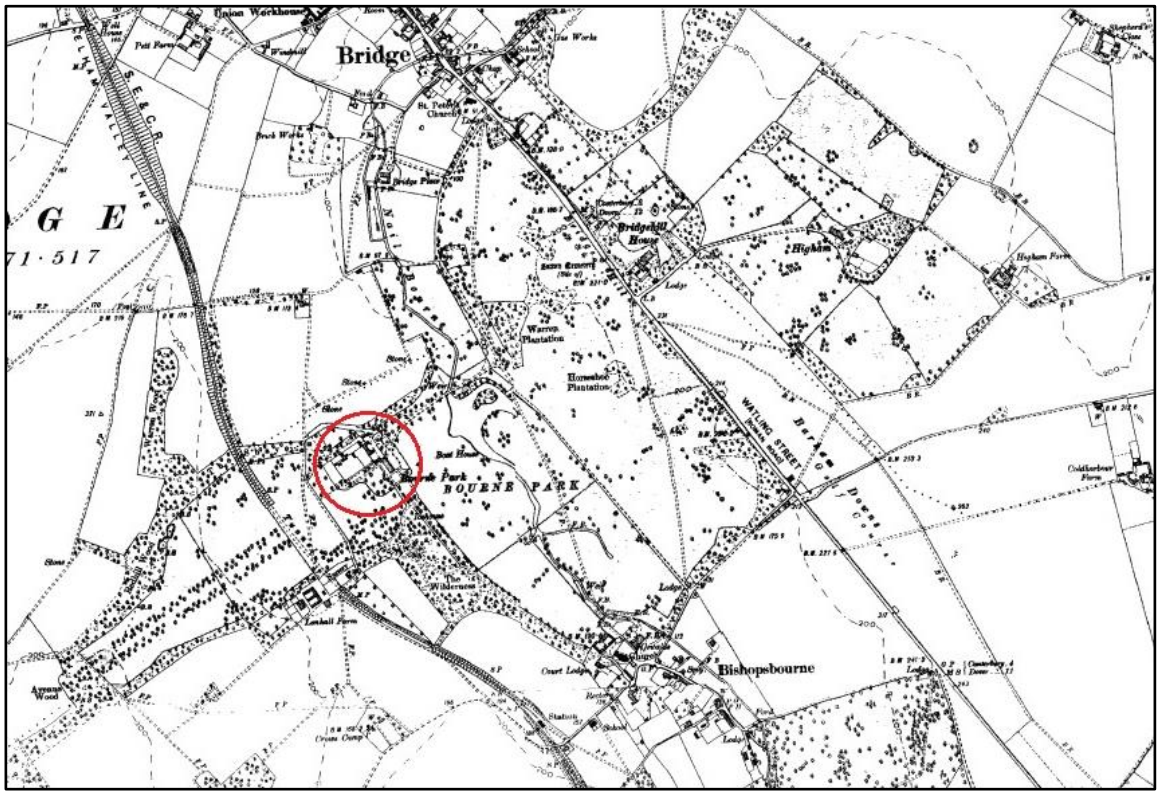


Figure 3: 1908 Edition OS Map with Site Location

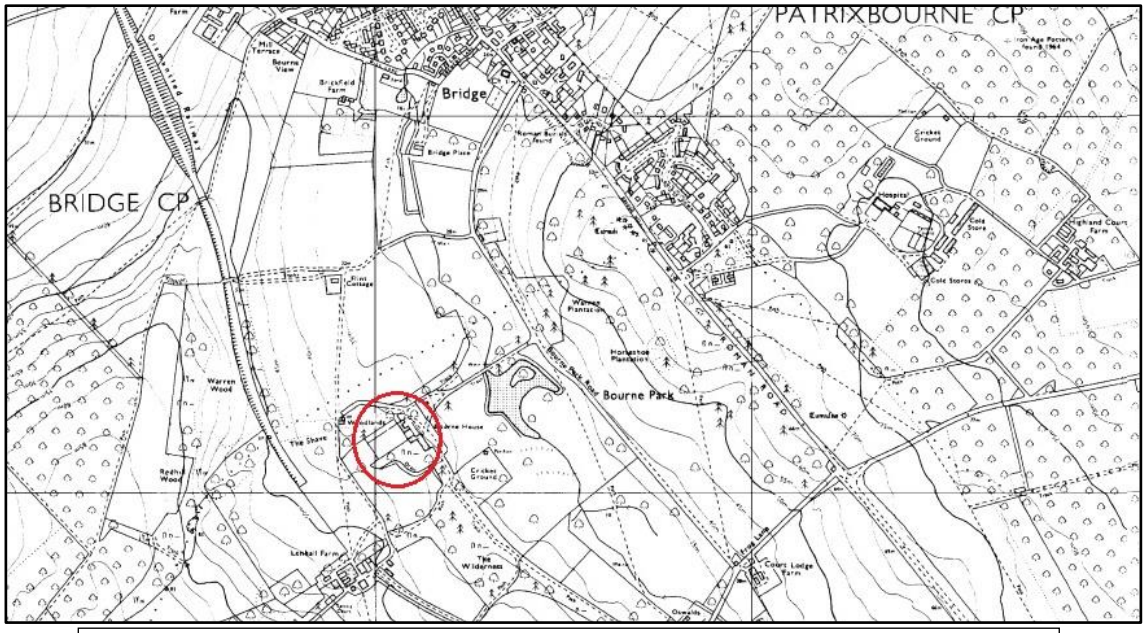


Figure 4: 1975 edition OS Map with Site Location


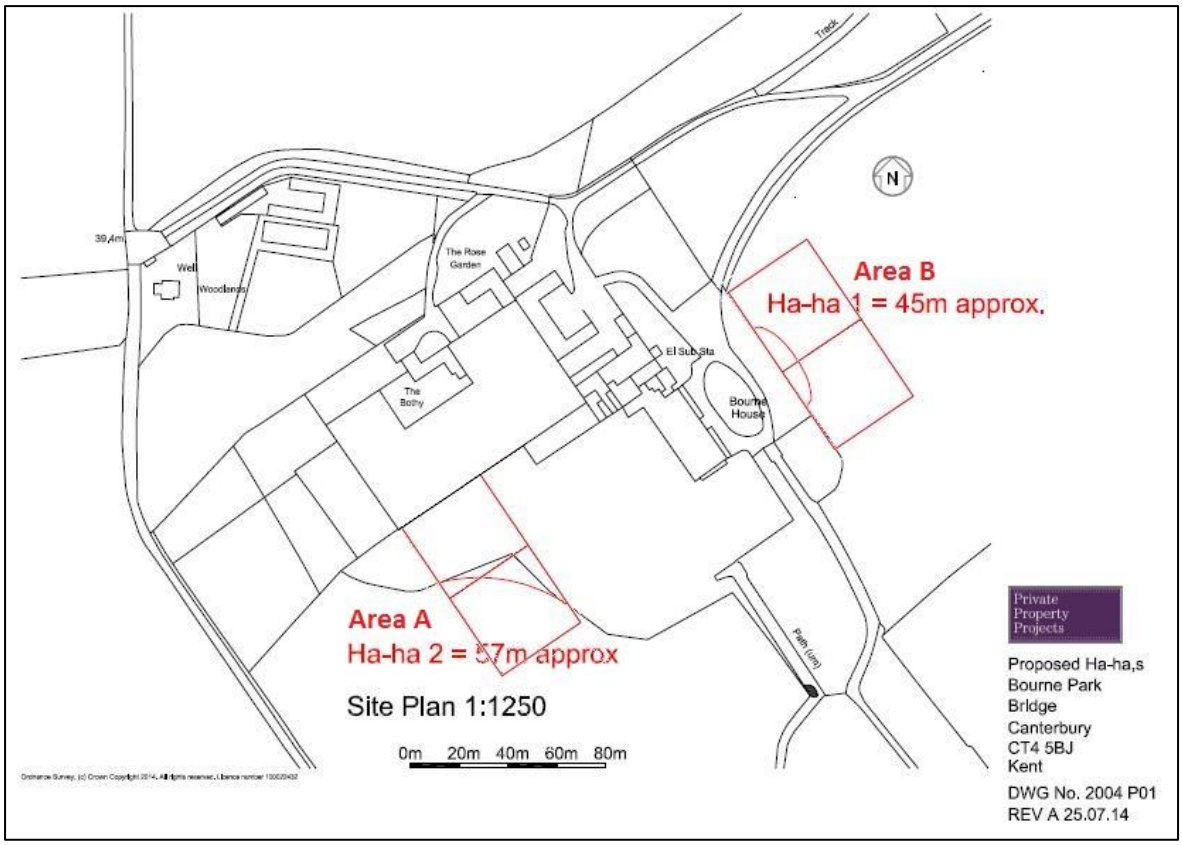


Figure 5: Site Plan with survey Grid location.

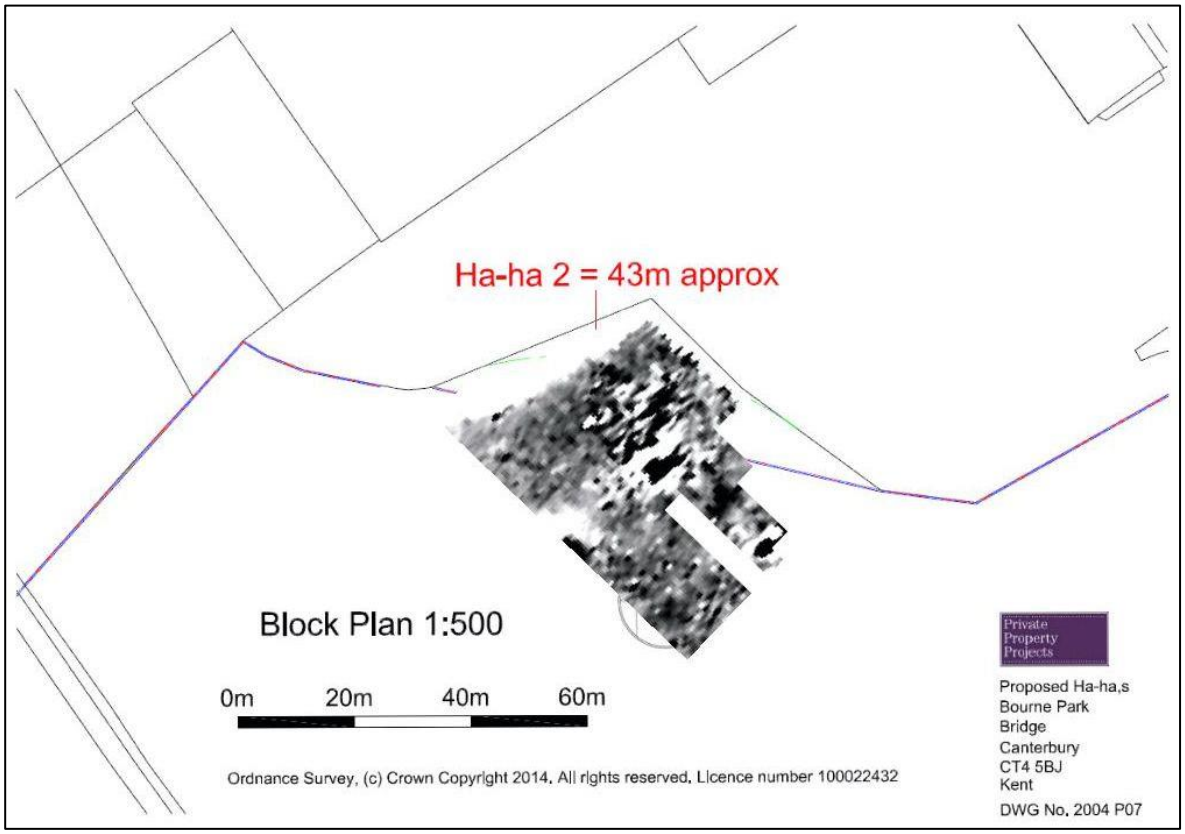


Figure 6: Area A: Magnetometry results

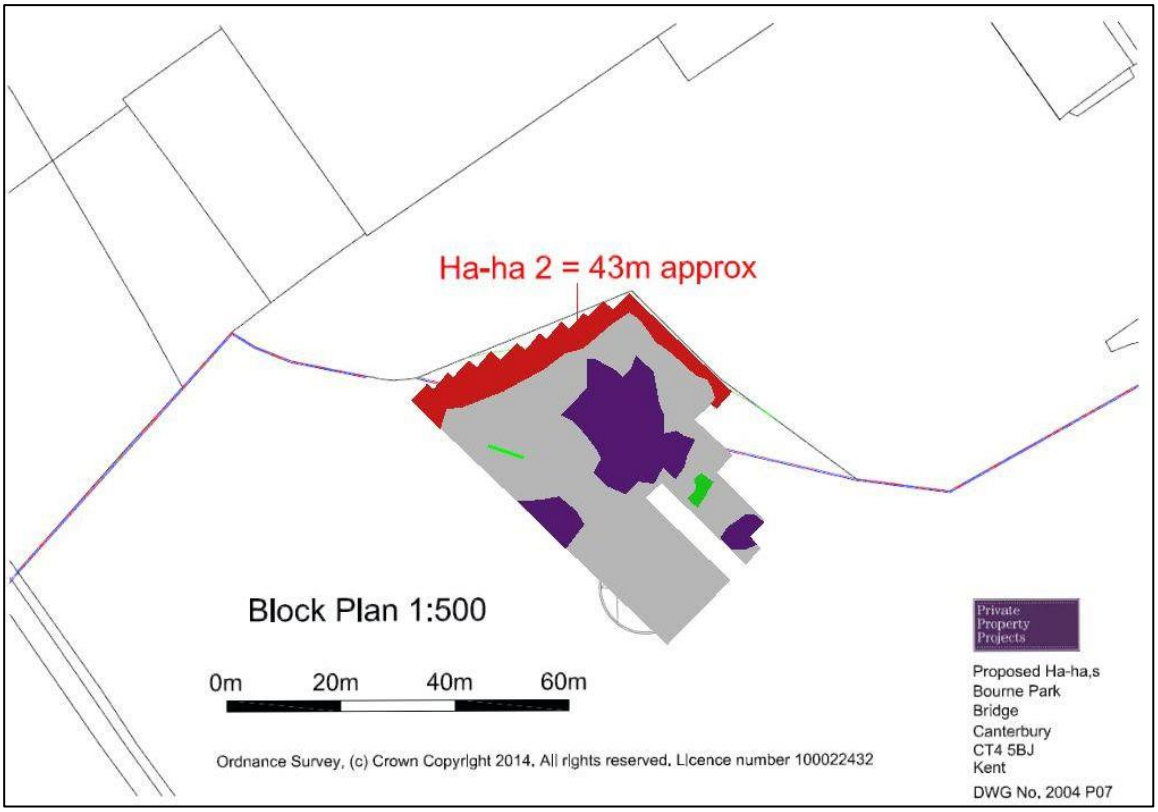


Figure 7: Area A: Interpretation of Results

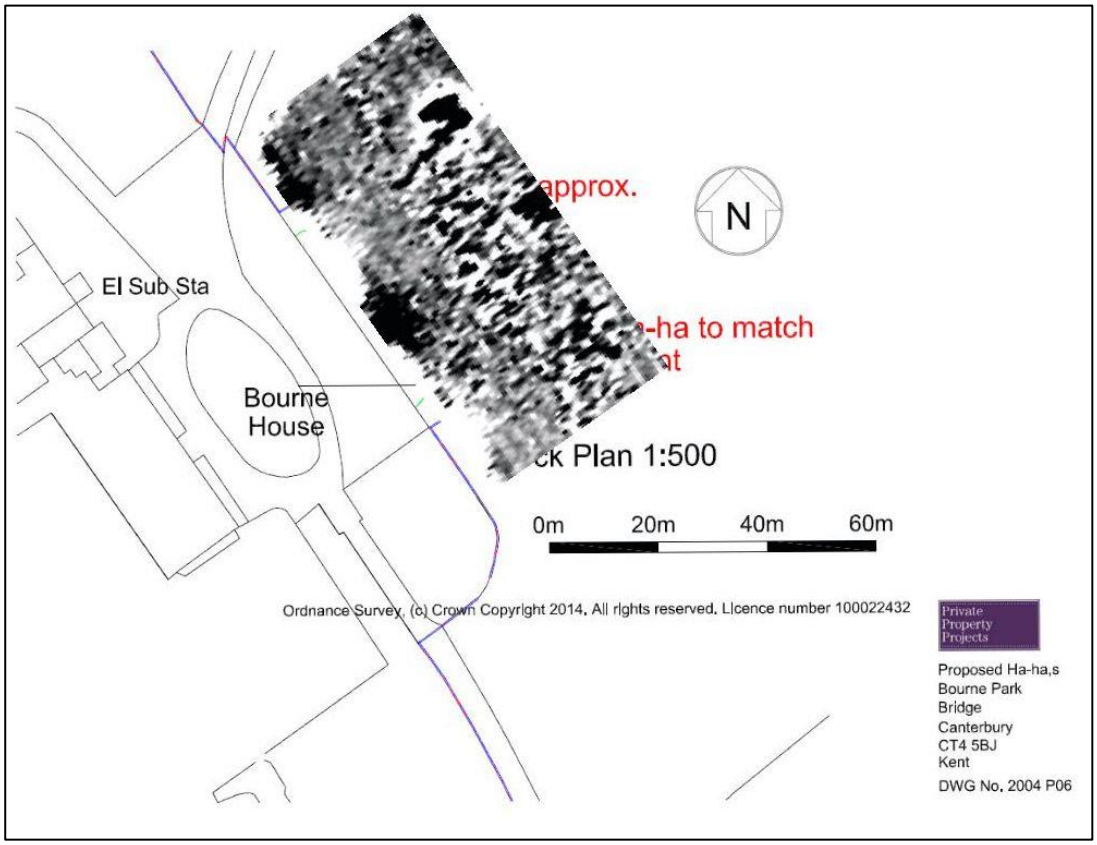


Figure 8: Area B: Magnetometry Results

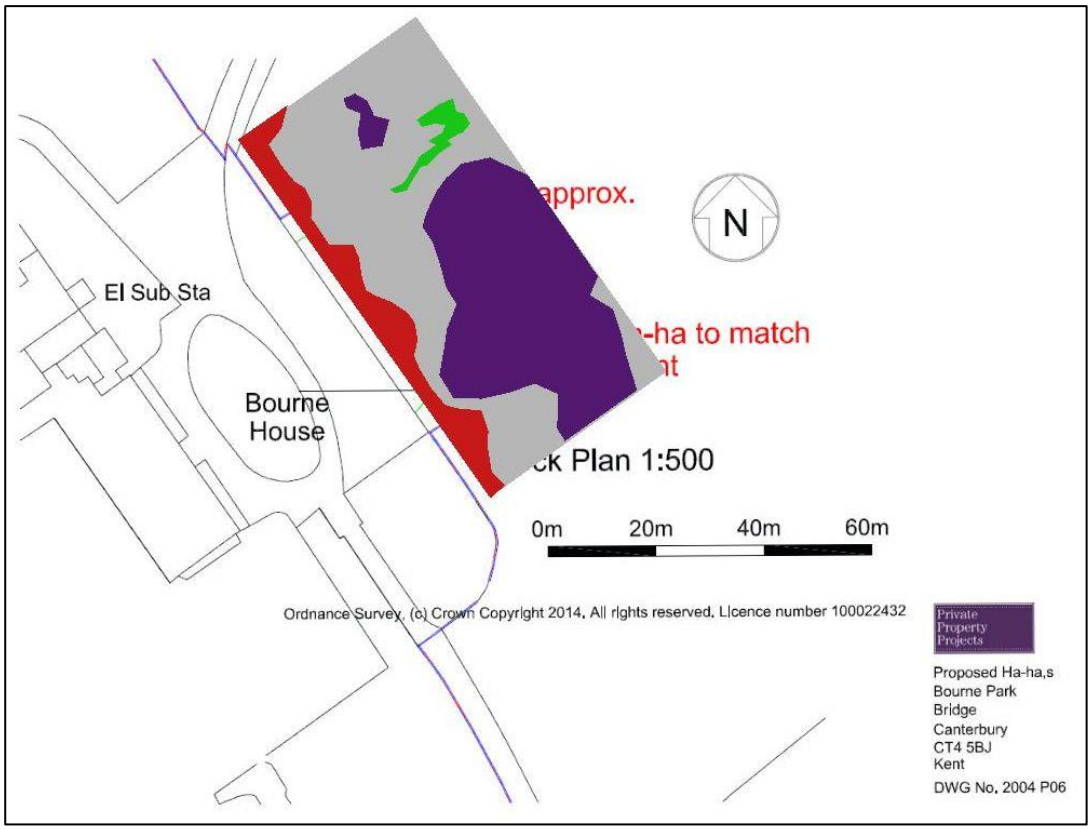


Figure 9: Area B: Interpretation of Results

# Appendix 1 HER Summary Form

| | | | | | | |
|---|---|---|---|---|---|---|
| Site Code | BPK14 | | | | | |
| Identification Name and Address | Bourne Park, Bridge, Kent | | | | | |
| County, District &/or Borough | KCC | | | | | |
| OS Grid Refs. | TR 1815 5320 | | | | | |
| Geology | Chalk | | | | | |
| Type of Fieldwork | Eval. | Excav. | Watching Brief | Standing Structure | Survey **X** | Other |
| Type of Site | Green Field X | Shallow Urban | Deep Urban | Other | | |
| Dates of Fieldwork | Eval. | Excav. | WB. | Other 4th November 2014 | | |
| Sponsor/Client | Strutt & Parker | | | | | |
| Project Manager | Chris Butler MIfA | | | | | |
| Project Supervisor | Andy Bradshaw | | | | | |
| Period Summary | Palaeo. | Meso. | Neo. | BA | IA | RB **?** |
| | AS | MED | PM | Other | | |

100 Word Summary

*The survey revealed a few potential archaeological features within the survey area, together with other areas of 'modern' rubbish disposal. Given the Roman remains found nearby, it is possible that these features may be associated with them, albeit at a lower level of activity.*

## Chris Butler Archaeological Services Ltd

Chris Butler has been an archaeologist since 1985, and formed the Mid Sussex Field Archaeological Team in 1987, since when it has carried out numerous fieldwork projects, and was runner up in the Pitt-Rivers Award at the British Archaeological Awards in 1996. Having previously worked as a Pensions Technical Manager and Administration Director in the financial services industry, Chris formed **Chris Butler Archaeological Services** at the beginning of 2002.

Chris is a Member of the Institute for Archaeologists, and Fellow of the Society of Antiquaries of London. He was a part time lecturer in Archaeology at the University of Sussex, and until recently taught A-Level Archaeology at Bexhill 6th Form College having qualified (Cert. Ed.) as a teacher in 2006. He continues to run the Mid Sussex Field Archaeological Team in his spare time.

Chris specialises in prehistoric flintwork analysis, but has directed excavations, landscape surveys and watching briefs, including the excavation of a Beaker Bowl Barrow, a Saxon cemetery and settlement, Roman pottery kilns, and a Mesolithic hunting camp. He has recently undertaken large landscape surveys of Ashdown Forest and Broadwater Warren and is Co-Director of the Barcombe Roman Villa excavation project.

His publications include *Prehistoric Flintwork*, *East Sussex Under Attack* and *West Sussex Under Attack*, all of which are published by Tempus Publishing Ltd.

**Chris Butler Archaeological Services Ltd** is available for Flintwork Analysis, Project Management, Military Archaeology, Desktop Assessments, Field Evaluations, Excavation work, Watching Briefs, Landscape and Woodland Surveys & Fieldwalking, Post Excavation Services and Report Writing.

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