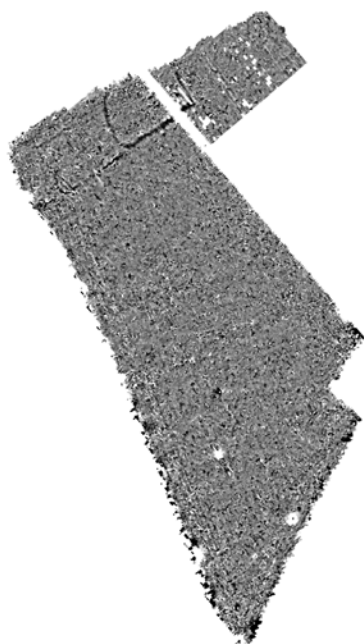




Northamptonshire Archaeology

Archaeological geophysical survey of land at Potton
Road, Biggleswade, Bedfordshire
February 2013



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Report 13/36

February 2013



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OASIS REPORT FORM

PROJECT DETAILS		OASIS No: 144430	
Project name	Archaeological geophysical survey of land at Potton Road, Biggleswade, Bedfordshire.		
Short description	Northamptonshire Archaeology was commissioned to carry out a detailed magnetometer survey of a proposed development area at Potton Road, Biggleswade, Bedfordshire. The survey identified enclosures, probably Iron Age or Roman in date, in the northern portion of the survey area. These results largely correlate with the cropmarks and Historic Environment Record data.		
Project type	Geophysical survey		
Site status	None		
Previous work			
Current Land use	Arable/overgrown pasture		
Future work	Unknown		
Monument type/ period	Uncertain		
Significant finds			
PROJECT LOCATION			
County	Bedfordshire		
Site address	Potton Road, Biggleswade		
Study area	c 11ha		
OS grid reference	519900 245900		
Height OD	c 30m AOD		
PROJECT CREATORS			
Organisation	Northamptonshire Archaeology (NA)		
Project brief originator	Central Bedfordshire Council Archaeology Team		
Project Design originator	NA		
Director/Supervisor	Chris Chinnock		
Project Manager	Adam Yates		
Sponsor or funding body	Bellway Homes		
PROJECT DATE			
Start date	30 April 2012		
End date	20 February 2013		
ARCHIVES	Location	Content	
Physical	N/A		
Paper	NA	Site survey records	
Digital	NA	Geophysical survey & GIS data	
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report		
Title	Archaeological geophysical survey of land at Potton Road, Biggleswade, Bedfordshire, February 2013		
Serial title & volume	Northamptonshire Archaeology Reports 13/36		
Author(s)	Chris Chinnock		
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY OF LAND AT POTTON ROAD,
BIGGLESWADE, BEDFORDSHIRE
FEBRUARY 2013**

ABSTRACT

Northamptonshire Archaeology was commissioned to carry out a detailed magnetometer survey of a proposed development area at Potton Road, Biggleswade, Bedfordshire. The survey identified enclosures, probably Iron Age or Roman in date, in the northern portion of the survey area. These results largely correlate with the cropmarks and Historic Environment Record data.

1 INTRODUCTION

Northamptonshire Archaeology (NA) was commissioned by Bellway Homes to conduct a geophysical survey in advance of a proposed development on land north-west of Potton Road, Biggleswade, Bedfordshire (NGR 519900 245900; Fig 1). The aim of the survey was to investigate whether there were any archaeological remains present which might be affected by the proposed development.

The fieldwork began on the 20th April 2012. It was postponed due to high crop and the site was completed on the 19th and 20th February 2013. This comprised the detailed magnetometer survey of c 11ha of land. Part of the site was occupied by an area of overgrown ground that could not be surveyed.

2 TOPOGRAPHY AND GEOLOGY

The proposed development area consists of one rectangular strip of arable land (Field 1) and a large triangular field with a strip of overgrown rough land to the north-east. These areas stand at an elevation of c 30m aOD.

The solid geology of the survey area comprises the sandstone of the Woburn Sands formation, overlain by the 1st and 2nd River Terrace Sands and Gravels (BGS 2013).

3 ARCHAEOLOGICAL BACKGROUND

The site lies outside of the historic core of Biggleswade. However, there are multiple areas of archaeological interest in the vicinity detailed in the Historic Environment Record for Bedfordshire. Of particular relevance are a number of undated enclosures, seen as cropmarks in the north-western corner of the survey area (Fig 4) (HER 15079). A series of cropmarks, 600m to the north-east of the site are believed to relate to the deserted medieval village of Kinwick (HER 509).

Immediately to the north of the site, cropmarks indicate the eastern end of a possible cursus monument (HER 16818) similar in form to a second cursus (HER 644) identified 500m to the north. In 2009, on an adjacent site to the east of Potton Road, trial trenching and subsequent area excavation examined a line of three pits that produced a pottery assemblage dating to the Middle Neolithic, the end of the 4th millennium BC (Jones 2009 and Chapman 2011).

Further cropmarks within and immediately around the survey area suggest extensive Iron Age and/or Roman activity (HER's 15079, 15101 and 644).

In the Domesday survey of AD 1086 the Parish of Biggleswade with the hamlets of Stratton and Holme lay within the Hundred of Biggleswade. At this time the Manor of Biggleswade was owned by Ralph de Lisle, though it was later granted to Alexander Bishop of Lincoln and his successors.

Historic maps from 1885 onwards show the proposed area for development as open fields.

4 METHODOLOGY

The survey was conducted with Bartington Grad 601-2, twin sensor array, vertical component fluxgate gradiometers (Bartington and Chapman 2003). These are standard instruments for archaeological survey and can resolve magnetic variations as slight as 0.1 nanoTesla (nT).

An independent system of 30m grids was established in each of the areas to be surveyed. The grids were established with a tape measure and optical square and tied in

to the Ordnance Survey National Grid using Leica System 1200 dGPS (see EH 2008, 19). The gradiometers were carried at a brisk but steady pace through each grid square, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per square.

All fieldwork methods complied with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011) and with the written scheme of investigation for the project (NA 2012).

The survey data were largely processed using Geoplot 3.00v software. Most of the striping was removed using the 'Zero Mean Traverse' function. Destaggering of the data was performed where necessary.

The processed data is presented in this report in the form of grey-tone plots at a scale of +/- 4nT black/white. These have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative overlay is shown in Figure 3.

5 SURVEY RESULTS

The data collected (Fig 2) from the survey area largely reflects the cropmarks described in the Historic Environment Record (HER 15079). The dominant feature in the results is a strong positive, D-shaped enclosure in the north-west corner of the field (Fig 3). It is approximately 65m long. The northern limit of the enclosure is obscured by the field boundary. Further linear anomalies extending south-west from the D-shaped enclosure suggest other smaller enclosures in this area. It is likely that these enclosures were contemporary. To the north-east of the D-shaped enclosure much weaker anomalies were detected, which could represent two smaller curvilinear enclosures (Fig 3).

Intense magnetic noise parallel with the bridle way at the south-west boundary is a modern pipeline. A few ferrous objects can be seen as highly positive and negative anomalies. Boundaries and fences have resulted in magnetic halos around the perimeter of the survey area.

6 CONCLUSION

The survey confirms the presence of archaeological features as described in the Historic Environment Record (HER 15079), previously identified from cropmarks. The archaeological activity is restricted to the northern part of the area, though some anomalies are more obvious than others. The D-shaped enclosure and associated features to the south-west are likely, given their form, to be Iron Age or Roman in date. This would not be unexpected given other archaeological remains in the area. Less can be said about the more ephemeral features to the north-east. The surrounding area shows evidence of activity throughout the prehistoric period and it is possible that they relate to the other enclosures though they may date to a different period altogether.

Whilst the survey produced no evidence to suggest that the Neolithic pits excavated in 2009 (Jones 2009 and Chapman 2011) extended across Potton Road, this absence cannot be considered conclusive. Individual pits dependent on their size and use may not be visible within the geophysical data, only coming to light through further investigation.

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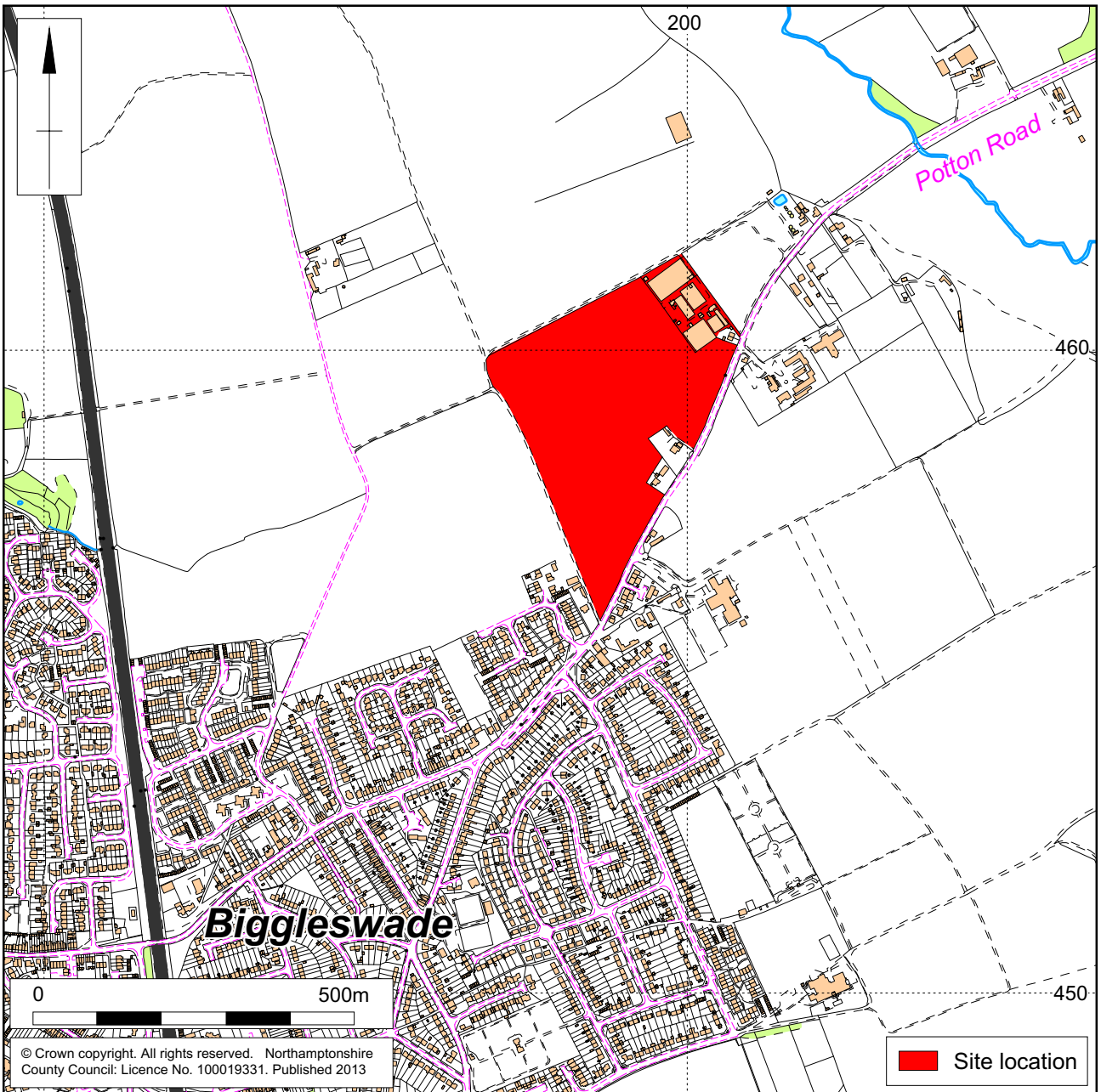
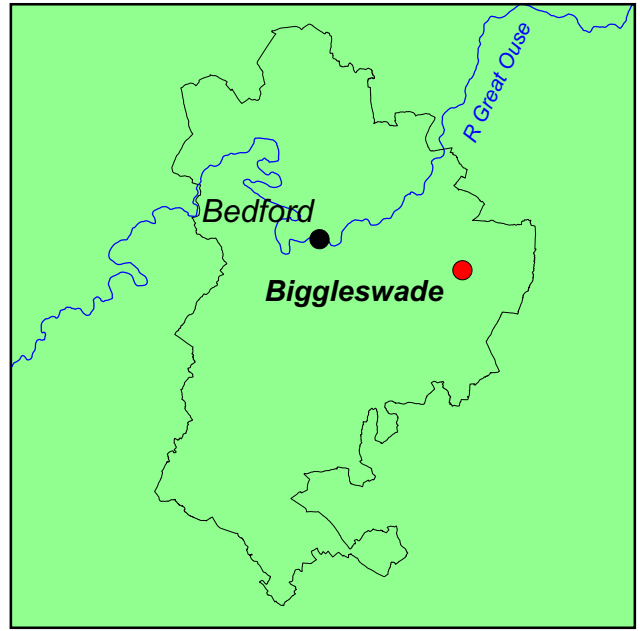
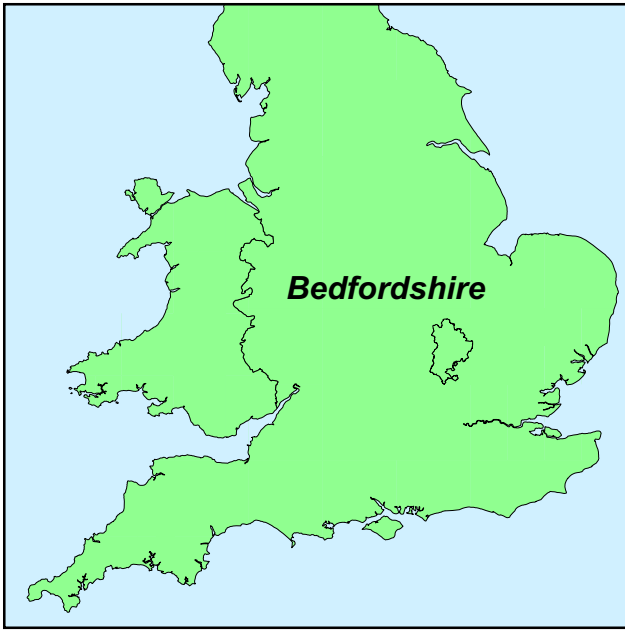
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Scale 1:10,000

Site Location Fig 1



Scale 1:2500

Magnetometer Survey Results Fig 2



Scale 1:2500

Magnetometer Survey Interpretation Fig 3