

WOTW/01



LAND EAST OF MELTON ROAD, WALTHAM ON THE WOLDS, LEICESTERSHIRE

GEOPHYSICAL SURVEY

commissioned by EDP
on behalf of Barwood Homes Ltd

July 2017

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project info

HA JOB NO. WOTW/01
NGR SK 8045 2474
PARISH Waltham on the Wolds and Thorpe
Arnold
LOCAL AUTHORITY Leicestershire County Council
OASIS REF. headland5-290602

project team

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 **HEADLAND
ARCHAEOLOGY**

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PROJECT SUMMARY

Headland Archaeology (UK) Ltd undertook a geophysical (magnetometer) survey of a 9 hectare site at Waltham on the Wolds to inform planning proposals for a proposed residential development at Land east of Melton Road. The survey has successfully evaluated the site identifying a single anomaly of probable archaeological origin – a rectilinear anomaly interpreted as forming the south-western corner of an enclosure of unknown date located in the west of the proposed development area (PDA). A curvilinear anomaly to the east of the PDA may also be of archaeological potential. Anomalies indicative of ridge and furrow cultivation are noted throughout the western half of the PDA but these low earthworks are assessed as of local historical interest only. No anomalies of likely archaeological potential have been identified across the majority of the site and therefore, on the basis of the geophysical survey, the archaeological potential is assessed as low and moderate around the probable enclosure, broadly corroborating the conclusions of an earlier heritage assessment.

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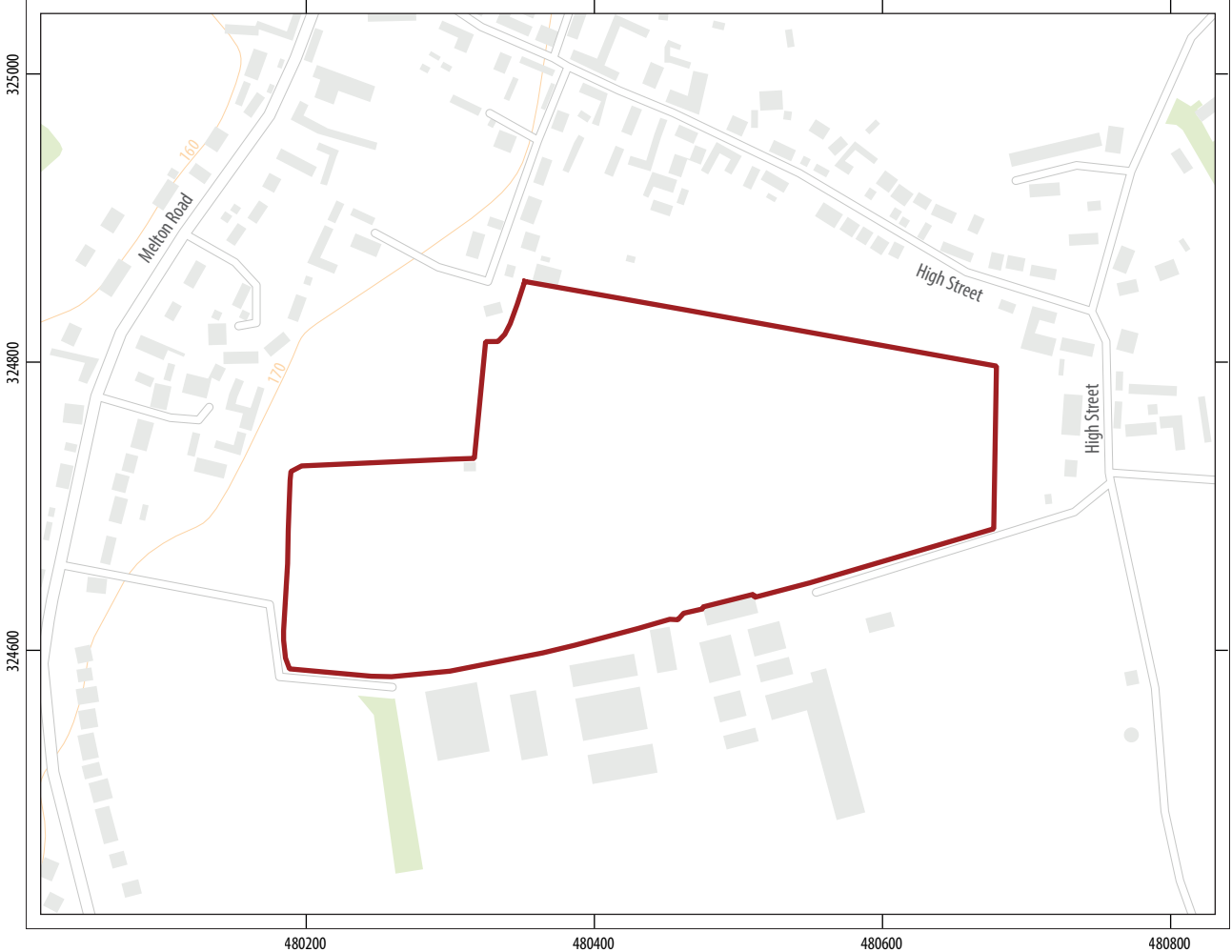
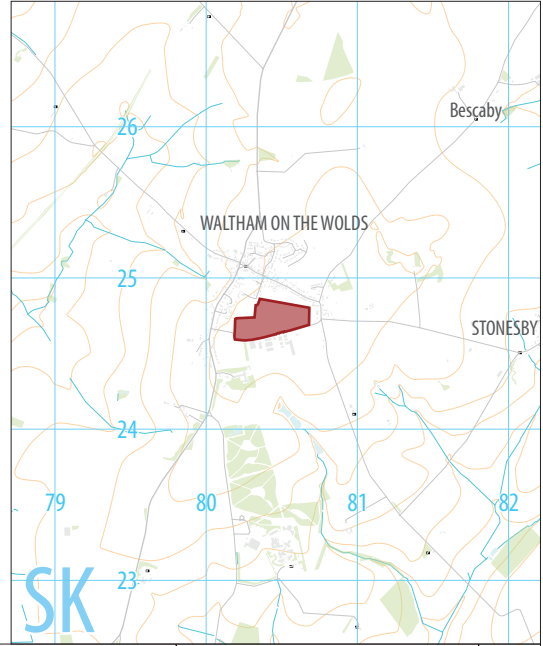
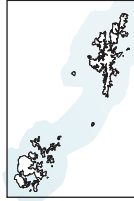
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WOTW/01
 land east of Melton Road
 Waltham on the Wolds
 Leicestershire

0 200km
 1:10,000,000 @ A4

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0 100m
 1:5,000 @ A4

proposed development area



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LAND EAST OF MELTON ROAD, WALTHAM ON THE WOLDS, LEICESTERSHIRE

GEOPHYSICAL SURVEY

1 INTRODUCTION

Headland Archaeology (UK) Ltd was commissioned by EDP (The Consultant), on behalf of Barwood Homes Ltd (The Client), to undertake a geophysical (magnetometer) survey of Land east of Melton Road, Waltham on the Wolds, Leicestershire, where a residential development is being proposed. The survey was carried out in order to inform planning proposals by assessing the heritage potential of the proposed development area (PDA) and therefore the impact of the proposed development on the historic environment.

The work was undertaken in accordance with a Written Scheme of Investigation (Headland Archaeology 2017) which was submitted to and approved by the Client, and with Leicestershire County Council and in accordance with guidance contained in the National Planning Policy Framework (DCLG 2012). All work was undertaken in line with current best practice (Chartered Institute for Archaeologists 2014, English Heritage 2008).

The survey was carried out on July 6th and July 7th.

1.1 SITE LOCATION, LAND-USE AND TOPOGRAPHY

The PDA is located on the southern periphery of Waltham on the Wolds, centred at SK 8045 2474 (see Illus 1). It comprises three fields (F1–F3) within a single contiguous block of agricultural farmland east of Melton Road and south and west of Waltham High Street. The PDA is bound to the south by Fairfield Industrial Estate and Manor Farm.

Sugar beet were growing in two of the fields with the third being under permanent pasture (see Illus 2–4).

The site was relatively flat ranging between 176m above Ordnance Datum (AOD) at the western end of the PDA, to 178m AOD to

the east. Survey was restricted by overgrown vegetation, farm machinery, bales and other agricultural paraphernalia around the margins of all three fields.

1.2 GEOLOGY AND SOILS

The underlying bedrock geology comprises sandstone, limestone and ironstone of the Northampton Sand Formation. No superficial deposits are recorded (NERC 2017).

The soils are classified in the Soilscape 7 association being characterised as freely draining, slightly acid soils (Cranfield University 2017).

2 ARCHAEOLOGICAL BACKGROUND

Baseline information collected by the Consultant (EDP 2017) has identified that there are no previously recorded designated or non-designated heritage assets within the PDA.

The alignment of a lane with adjacent dwellings is recorded running north/south through the east of the PDA on an 1825 map and there may be sub-surface remains of these features. Low ridge and furrow earthworks are also recorded in F2, to the north of the PDA although they are described as in poor condition.

3 AIMS, METHODOLOGY AND PRESENTATION

The general aim of the geophysical survey was to provide sufficient information to establish the presence/absence, character and extent



ILLUS 2 Field 1, looking north-west

of any archaeological remains within the PDA. This will therefore enable an assessment to be made of the impact of the proposed development on any sub-surface archaeological remains, if present.

The specific archaeological objectives of the geophysical survey were:

- › to provide information about the nature and possible interpretation of any magnetic anomalies identified;
- › to therefore model the presence/absence and extent of any buried archaeological features; and
- › to prepare a report summarising the results of the survey.

3.1 MAGNETOMETER SURVEY

Magnetic survey methods rely on the ability of a variety of instruments to measure very small magnetic fields associated with buried archaeological remains. A feature such as a ditch, pit or kiln can act like a small magnet, or series of magnets, that produce distortions (anomalies) in the Earth's magnetic field. In mapping these slight variations, detailed plans of sites can be obtained as buried features often produce reasonably characteristic anomaly shapes and strengths (Gaffney and Gater 2003). Further information on soil magnetism and the interpretation of magnetic anomalies is provided in Appendix 1.

The survey was undertaken using four Bartington Grad601 sensors mounted at 1m intervals (1m traverse interval) onto a rigid carrying frame. The system was programmed to take readings at a frequency of 10Hz (allowing for a 10–15cm sample interval) on roaming traverses (swaths) 4m apart. These readings were stored on an external weatherproof laptop and later downloaded for processing and interpretation. The system was linked to a Trimble R8s Real Time Kinetic (RTK) differential Global Positioning System (dGPS) outputting in NMEA mode to ensure a high positional accuracy for each data point.

MLGrad601 and MultiGrad601 (Geomar Software Inc.) software was used to collect and export the data. Terrasurveyor V3.0.32.4 (DWConsulting) software was used to process and present the data.

3.2 REPORTING

A general site location plan is shown in Illus 1 at a scale of 1:20,000. Illus 2–4 inclusive are site condition photographs. Illus 5 is a 1:5000 scale survey location plan showing the GPS swath data. Detailed data plots of the fully processed data (greyscale), the minimally processed data (XY traceplot) and an accompanying interpretative plot, are presented at a scale of 1:1,500 in Illus 6 to Illus 8 inclusive.

Technical information on the equipment used, data processing and magnetic survey methodology is given in Appendix 1. Appendix 2 details the survey location information and Appendix 3 describes the



ILLUS 3 Field 2, looking south

composition and location of the site archive. Data processing details are presented in Appendix 4. A copy of the OASIS entry (Online Access to the Index of Archaeological Investigations) is reproduced in Appendix 5.

The survey methodology, report and any recommendations comply with the Written Scheme of Investigation (Headland Archaeology 2017) and guidelines outlined by Historic England (English Heritage 2008) and by the Chartered Institute for Archaeologists (Cifa 2014). All illustrations from Ordnance Survey mapping are reproduced with the permission of the controller of Her Majesty's Stationery Office (© Crown copyright).

The illustrations in this report have been produced following analysis of the data in 'raw' and processed formats and over a range of different display levels. All illustrations are presented to most suitably display and interpret the data from this site based on the experience and knowledge of management and reporting staff.

4 RESULTS AND DISCUSSION

Despite the presence of a mature sugar beet crop in the two largest fields (F1 and F3) it has been possible, using Headlands' unique hand carry system, to collect a high quality data set on challenging ground conditions. The magnetic background is very variable in these two fields probably as a consequence of consistent cultivation. The magnetic background is much 'flatter' in F2 as this field has not

been cultivated for decades, possibly centuries, as evidenced by the survival of the ridge and furrow earthworks.

Despite the level of magnetic variation in F1 and F3 it has been possible to distinguish other anomalous responses. Those anomalies with modern, agricultural or geological origins are discussed first followed by those anomalies with a possible or probable archaeological cause. All are cross-referenced to specific anomalies on the interpretative drawings, where appropriate.

4.1 FERROUS AND MODERN ANOMALIES

Ferrous anomalies, characterised as individual 'spikes', are typically caused by ferrous (magnetic) material, either on the ground surface or in the plough-soil. Little importance is normally given to such anomalies, unless there is any supporting evidence for an archaeological interpretation, as modern ferrous debris is common on most sites, often being present as a consequence of manuring or tipping/infilling.

A high magnitude dipolar linear anomaly (Illus 8 – SP1) crossing F2 and F3 on a north-west/south-east alignment is caused by a sub-surface pipe.

Magnetic disturbance around the field edges is due to ferrous material within or close to the adjacent field boundaries and is of no archaeological interest.



ILLUS 4 Field 3, looking south

4.2 AGRICULTURAL ANOMALIES

Slightly curvilinear, broadly-spaced parallel trend anomalies have been recorded throughout F2 and in the western half of F1, aligned east/west and north/south respectively. These anomalies are caused by the medieval and post-medieval practice of ridge and furrow cultivation. The striped appearance to the data is due to the magnetic contrast between the former ridges and the soil-filled furrows. The ridge and furrow survives as low earthworks in F2.

Vague linear trends, aligned north/south and east/west, in the east of F1 and in F3, are also interpreted as of likely agricultural origin, probably indicating the direction of previous cultivation.

4.3 GEOLOGICAL ANOMALIES

As discussed, broad levels of magnetic variation have been identified across F1 and F3 resulting in a plethora of high magnitude discrete anomalies across the PDA.

4.4 ANOMALIES OR UNCERTAIN ORIGIN

A broad linear negative linear anomaly, extending on a south-west/north-east alignment across F1, has been identified. It does not correspond with any geological boundary and nor does it correspond with any boundary on historic mapping. It is also oblique to the current field boundaries and direction of cultivation. Its linearity

might suggest a more recent origin and it is perpendicular to the pipe identified crossing F2 and F3. For this reason it is tentatively ascribed a modern origin, perhaps an infilled pipe trench.

4.5 ARCHAEOLOGICAL AND POSSIBLE ARCHAEOLOGICAL ANOMALIES

Curvilinear anomaly, D1 (Illus 8) is identified in the north-western corner of F1. The anomaly clearly stands out above the much weaker ridge and furrow anomalies and is typical of a ditch. It is interpreted as forming the south-western corner of an enclosure, E1, of unknown date. A shorter anomaly, D2, of similar magnitude to D1 and immediately to the west, is also interpreted as of probable archaeological origin, possibly forming an annex, E2, to the main enclosure, E1.

Discrete anomalies within E1 and E2, which are broader and of a higher magnitude than the discrete geological anomalies described above, have been interpreted as of possible archaeological origin. It is however, impossible to be confident of discriminating between geological anomalies and those which may be caused by archaeological features, such as pits or areas of burning, against this background.

In F3 a third curvilinear anomaly, D3, is identified, of a similar magnitude to the ditch type anomalies in the field to the south-

west. There is no archaeological context to give confidence to an archaeological interpretation but the anomaly could form part of the ploughed out remains of a feature such as a barrow. However, this interpretation is tentative and a non-archaeological origin is considered equally plausible.

5 CONCLUSION

The geophysical survey has successfully evaluated the proposed development area and has identified a probable enclosure of unknown date to the north-west of the PDA. A curvilinear anomaly to the east of the site is also of possible archaeological potential. These anomalies are assessed as having moderate archaeological potential. Evidence of ridge and furrow cultivation is confirmed to the north-west of the PDA but is of likely local historical interest only. No anomalies of archaeological potential have been identified across most of the PDA. Consequently the PDA overall is assessed of low archaeological potential but with moderate potential in and around the identified anomalies.

6 REFERENCES

- Chartered Institute for Archaeologists (CIfA) 2014 *Standard and guidance for archaeological geophysical survey* [online document] Accessed 12 July 2017 from http://www.archaeologists.net/sites/default/files/CIfAS&GGeophysics_1.pdf
- Cranfield University 2017 *Cranfield Soil and Agrifood Institute Soilscales* [online] Accessed 12 July 2017 from www.landis.org.uk/soilscales/

Department of Communities and Local Government (DCLG) 2012 *National Planning Policy Framework* [online document] Accessed 12 July 2017 from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

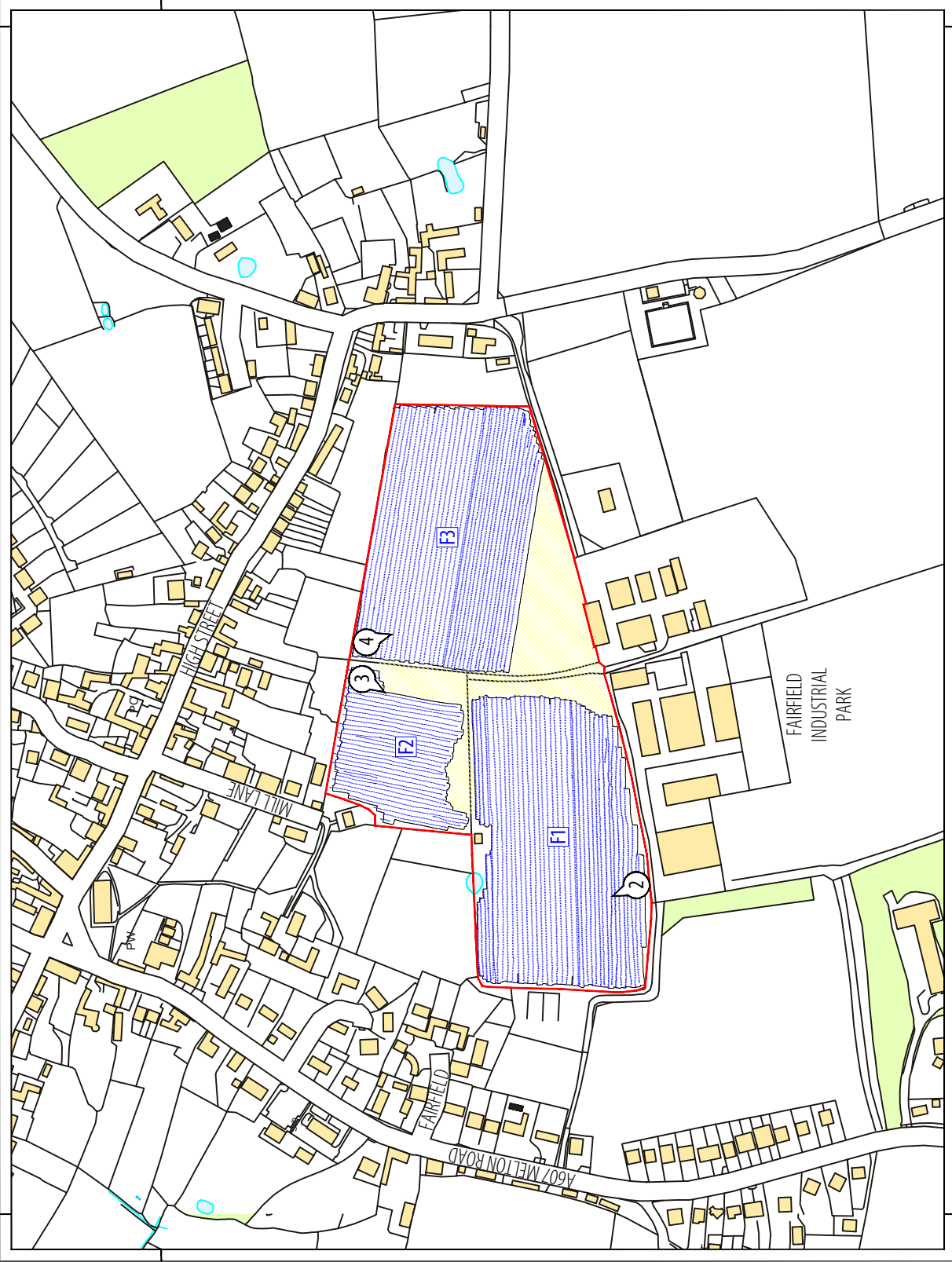
EDP 2017 *Land east of Melton Road, Waltham-on-the-Wolds, Leicestershire: Heritage Assessment* [unpublished client doc, ref EDP3365_03a]

English Heritage 2008 *Geophysical Survey in Archaeological Field Evaluation: Research and Professional Services Guidelines* (2nd edition) [online document] Accessed 12 July 2017 from <http://content.historicengland.org.uk/images-books/publications/geophysical-survey-in-archaeological-field-evaluation/geophysics-guidelines.pdf>

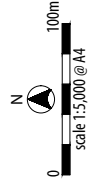
Gaffney, C & Gater, J 2003 *Revealing the Buried Past: Geophysics for Archaeologists* The History Press: Stroud

Headland Archaeology 2017 *Land east of Melton Road, Waltham-on-the-Wolds, Leicestershire: Written Scheme of Investigation for Geophysical Survey* [unpublished Headland document, Ref WOTW/01]

Natural Environment Research Council (NERC) 2017 *British Geological Survey* [online] Accessed 12 July 2017 from <http://www.bgs.ac.uk/>



- ▭ proposed development area
- ▨ GPS swaths
- ▨ location and direction of ILLUS 2-4
- ▨ area unsuitable for survey



PROJECT

WOTW/01
Land east of Melton Road
Waltham on the Wolds
Leicestershire

CLIENT

Barwood Homes



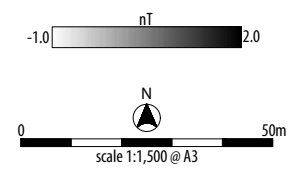
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481000

480000

ILLUS 5 Survey location showing GPS swaths

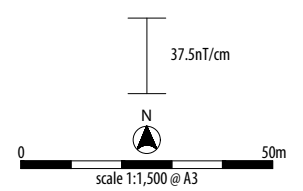
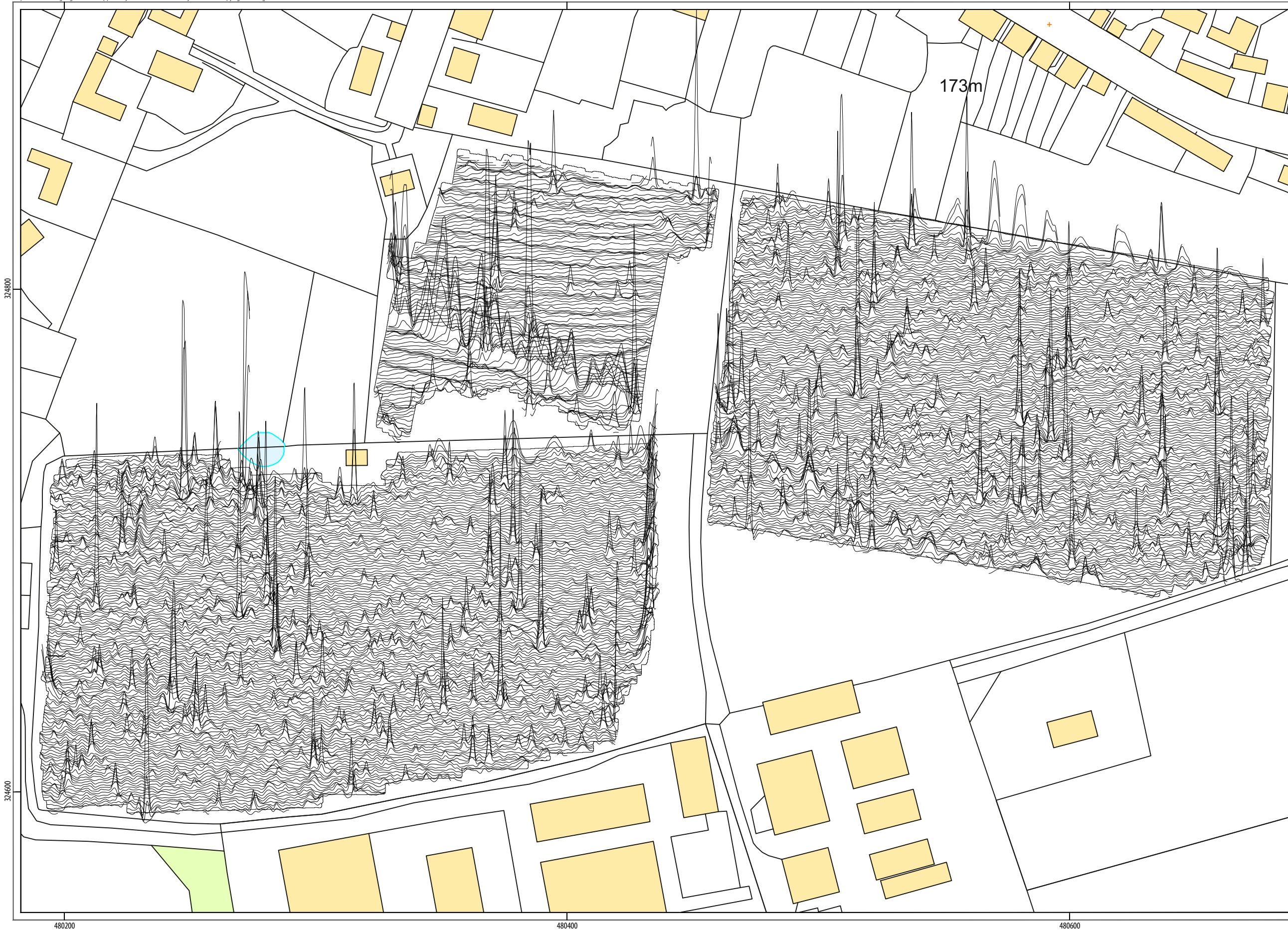


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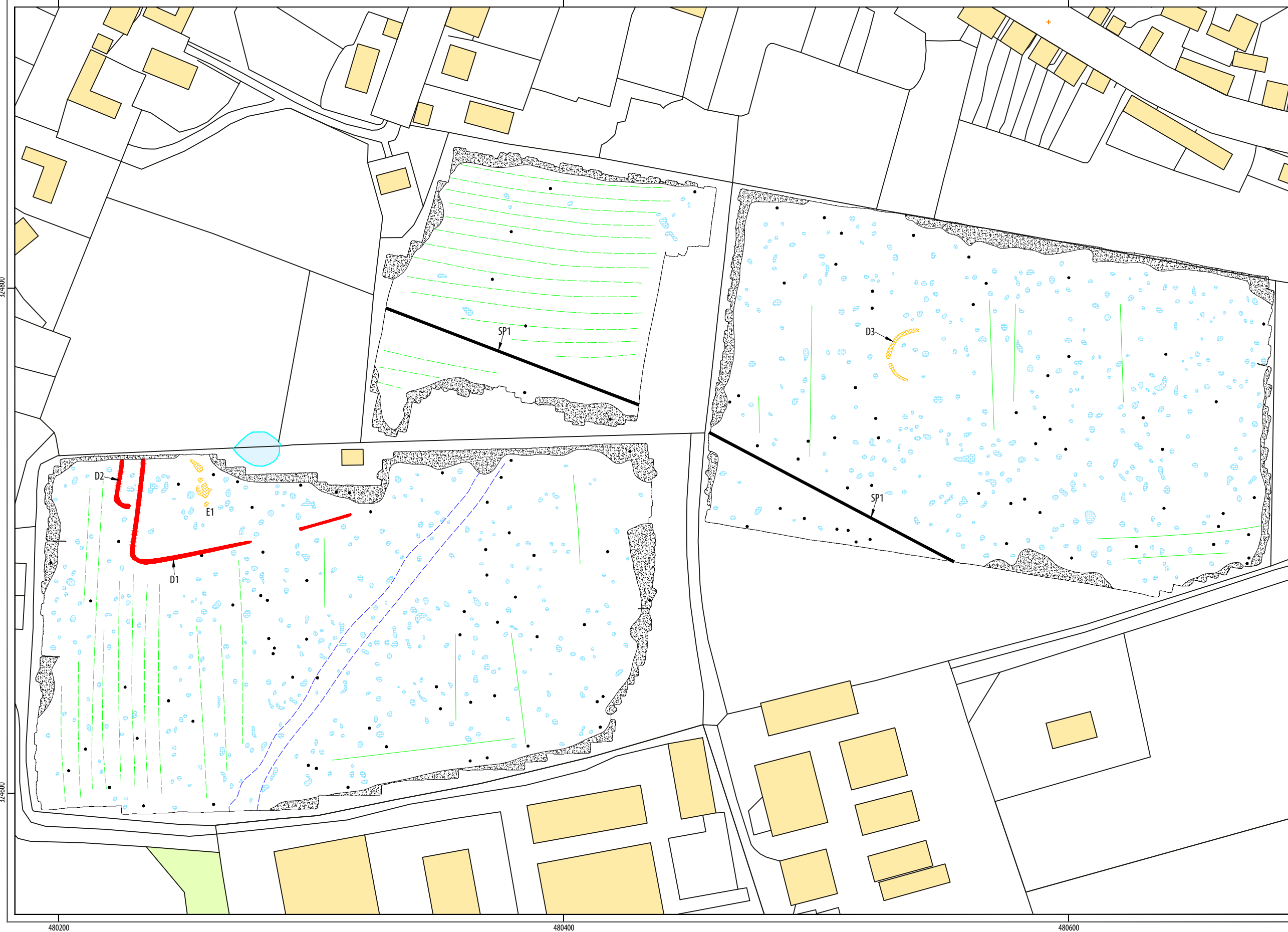
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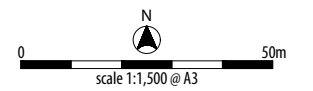
ILLUS 7 XY trace plot of minimally processed magnetometer data



TYPE OF ANOMALY	INTERPRETATION
• dipolar isolated	ferrous material
•• magnetic disturbance	ferrous material
— dipolar linear	service pipe
- - - linear trend	ridge and furrow
- - - linear trend	agricultural
- - - linear trend	modern?
•••• magnetic enhancement	geology?
•••• magnetic enhancement	archaeology?
•••• magnetic enhancement	archaeology

ABBREVIATIONS

D	ditch
E	enclosure
SP	service-pipe



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7 APPENDICES

APPENDIX 1 MAGNETOMETER SURVEY

Magnetic susceptibility and soil magnetism

Iron makes up about 6% of the Earth's crust and is mostly present in soils and rocks as minerals such as maghaemite and haematite. These minerals have a weak, measurable magnetic property termed magnetic susceptibility. Human activities can redistribute these minerals and change (enhance) others into more magnetic forms so that by measuring the magnetic susceptibility of the topsoil, areas where human occupation or settlement has occurred can be identified by virtue of the attendant increase (enhancement) in magnetic susceptibility. If the enhanced material subsequently comes to fill features, such as ditches or pits, localised isolated and linear magnetic anomalies can result whose presence can be detected by a magnetometer (fluxgate gradiometer).

In general, it is the contrast between the magnetic susceptibility of deposits filling cut features, such as ditches or pits, and the magnetic susceptibility of topsoils, subsoils and rocks into which these features have been cut, which causes the most recognisable responses. This is primarily because there is a tendency for magnetic ferrous compounds to become concentrated in the topsoil, thereby making it more magnetic than the subsoil or the bedrock. Linear features cut into the subsoil or geology, such as ditches, that have been silted up or have been backfilled with topsoil will therefore usually produce a positive magnetic response relative to the background soil levels. Discrete feature, such as pits, can also be detected.

The magnetic susceptibility of a soil can also be enhanced by the application of heat. This effect can lead to the detection of features such as hearths, kilns or areas of burning.

Types of magnetic anomaly

In the majority of instances anomalies are termed 'positive'. This means that they have a positive magnetic value relative to the magnetic background on any given site. However some features can manifest themselves as 'negative' anomalies that, conversely, means that the response is negative relative to the mean magnetic background.

Where it is not possible to give a probable cause of an observed anomaly a '?' is appended.

It should be noted that anomalies interpreted as modern in origin might be caused by features that are present in the topsoil or upper layers of the subsoil. Removal of soil to an archaeological or natural layer can therefore remove the feature causing the anomaly.

The types of response mentioned above can be divided into five main categories that are used in the graphical interpretation of the magnetic data:

Isolated dipolar anomalies (iron spikes) These responses are typically caused by ferrous material either on the surface or in the topsoil. They cause a rapid variation in the magnetic response giving a characteristic 'spiky' trace. Although ferrous archaeological artefacts could produce this type of response, unless there is supporting evidence for an archaeological interpretation, little emphasis is normally given to such anomalies, as modern ferrous objects are common on rural sites, often being present as a consequence of manuring.

Areas of magnetic disturbance These responses can have several causes often being associated with burnt material, such as slag waste or brick rubble or other strongly magnetised/fired material. Ferrous structures such as pylons, mesh or barbed wire fencing and buried pipes can also cause the same disturbed response. A modern origin is usually assumed unless there is other supporting information.

Linear trend This is usually a weak or broad linear anomaly of unknown cause or date. These anomalies are often caused by agricultural activity, either ploughing or land drains being a common cause.

Areas of magnetic enhancement/positive isolated anomalies Areas of enhanced response are characterised by a general increase in the magnetic background over a localised area whilst discrete anomalies are manifest by an increased response (sometimes only visible on an XY trace plot) on two or three successive traverses. In neither instance is there the intense dipolar response characteristic exhibited by an area of magnetic disturbance or of an 'iron spike' anomaly (see above). These anomalies can be caused by infilled discrete archaeological features such as pits or post-holes or by kilns. They can also be caused by pedological variations or by natural infilled features on certain geologies. Ferrous material in the subsoil can also give a similar response. It can often therefore be very difficult to establish an anthropogenic origin without intrusive investigation or other supporting information.

Linear and curvilinear anomalies Such anomalies have a variety of origins. They may be caused by agricultural practice (recent ploughing trends, earlier ridge and furrow regimes or land drains), natural geomorphological features such as palaeochannels or by infilled archaeological ditches.

APPENDIX 2 SURVEY LOCATION INFORMATION

An initial survey base station was established using a Trimble VRS differential Global Positioning System (dGPS). The magnetometer data was georeferenced using a Trimble RTK differential Global Positioning System (Trimble R8s model).

Temporary sight markers were laid out using a Trimble VRS differential Global Positioning System (Trimble R8s model) to guide the operator and ensure full coverage. The accuracy of this dGPS equipment is better than 0.01m.

The survey data were then super-imposed onto a base map provided by the client to produce the displayed block locations. However, it should be noted that Ordnance Survey positional accuracy for digital map data has an error of 0.5m for urban and floodplain areas, 1.0m for rural areas and 2.5m for mountain and moorland areas. This potential error must be considered if coordinates are measured off hard copies of the mapping rather than using the digital coordinates.

Headland Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party.

APPENDIX 3 GEOPHYSICAL SURVEY ARCHIVE

The geophysical archive comprises an archive disk containing the raw data in XYZ format, a raster image of each greyscale plot with associated world file, and a PDF of the report.

The project will be archived in-house in accordance with recent good practice guidelines (http://guides.archaeologydataservice.ac.uk/g2gp/Geophysics_3). The data will be stored in an indexed archive and migrated to new formats when necessary. In addition, the raw data will be deposited with the Archaeology Data Service (ADS) in accordance with Devon County Council's Specification for Geophysical Survey.

APPENDIX 4 DATA PROCESSING

The gradiometer data has been presented in this report in processed greyscale and minimally processed XY trace plot format.

Data collected using RTK GPS-based methods cannot be produced without minimal processing of the data. The minimally processed data has been interpolated to project the data onto a regular grid and de-striped to correct for slight variations in instrument calibration drift and any other artificial data.

A high pass filter has been applied to the greyscale plots to remove low frequency anomalies (relating to survey tracks and modern agricultural features) in order to maximise the clarity and interpretability of the archaeological anomalies.

The data has also been clipped to remove extreme values and to improve data contrast.

APPENDIX 5 APPENDIX 5 OASIS DATA COLLECTION FORM: ENGLAND

OASIS ID: headland5-290602

PROJECT DETAILS	
Project name	Land east of Melton Road, Waltham on the Wolds, Leicestershire
Short description of the project	Headland Archaeology (UK) Ltd undertook a geophysical (magnetometer) survey of a 9 hectare site at Waltham on the Wolds to inform planning proposals for a proposed residential development at Land east of Melton Road. The survey has successfully evaluated the site identifying a single anomaly of probable archaeological origin - a rectilinear anomaly interpreted as forming the south-western corner of an enclosure of unknown date located in the west of the proposed development area (PDA). A curvilinear anomaly to the east of the PDA may also be of archaeological potential. Anomalies indicative of ridge and furrow cultivation are noted throughout the western half of the PDA but these low earthworks are assessed as of local historical interest only. No anomalies of likely archaeological potential have been identified across the majority of the site and therefore, on the basis of the geophysical survey, the archaeological potential is assessed as low and moderate around the probable enclosure, broadly corroborating the conclusions of an earlier heritage assessment.
Project dates	Start: 06-07-2017 End: 07-07-2017
Previous/future work	Not known / Yes
Any associated project reference codes	WOTW-01 - Contracting Unit No.
Type of project	Field evaluation
Current Land use	Cultivated Land 4 - Character Undetermined
Current Land use	Grassland Heathland 5 - Character undetermined
Monument type	N/A None
Monument type	N/A None
Significant Finds	N/A None
Significant Finds	N/A None
Methods & techniques	"Geophysical Survey"
Development type	Housing estate
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	Pre-application
Solid geology (other)	Northampton Sand Formation
Drift geology (other)	None
Techniques	Magnetometry
PROJECT LOCATION	
Country	England
Site location	LEICESTERSHIRE MELTON WALTHAM ON THE WOLDS AND THORPE ARNOLD Land east of Melton Road, Waltham on the Wolds
Study area	9 Hectares
Site coordinates	SK 8045 2474 52.813860413108 -0.806217383793 52 48 49 N 000 48 22 W Point
PROJECT CREATORS	
Name of Organisation	Headland Archaeology
Project brief originator	EDP
Project design originator	Headland Archaeology
Project director/manager	Harrison, D
Project supervisor	Bishop, R

Type of sponsor/funding body	Developer
PROJECT ARCHIVES	
Physical Archive Exists?	No
Digital Archive recipient	In house
Digital Contents	"Survey"
Paper Archive Exists?	No
Paper Media available	"Report"
PROJECT BIBLIOGRAPHY 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Land east of Melton Road, Waltham on the Wolds, Leicestershire; Geophysical Survey
Author(s)/Editor(s)	Webb, A.
Date	2017
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Entered on	19 July 2017



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