Archaeology South-East

ASE

Land North-East of Bury St Edmunds, Suffolk

NGR TL 8796 6566

Archaeological Evaluation and Magnetometer Survey

Written Scheme of Investigation

ASE Project No.: 7083
HER Event No.: BRG 076
OASIS ID: archaeol6-192101

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1 Introduction

1.1 Archaeology South-East (ASE), the contracting division of The Centre for Applied Archaeology at the Institute of Archaeology, University College London, have been commissioned by Berkley Strategic Land Ltd to undertake a geophysical survey and archaeological evaluation of land north-east of Bury St Edmonds, Suffolk (Figure 1, NGR: TL 8796 6566). The work will also include an assessment of upstanding remains within an area of the site known as the 'mound' (Fig. 2, NGR: TL 8847 6541).

1.2 The site comprises open, previously undeveloped land located to the north-east of Bury St Edmunds. It is bound to the south by a railway, to the east by farmland, and to the north and west by the A143.

1.3 Planning permission will be sought for a 75 hectare housing-led development. In support of the upcoming planning application Berkeley Strategic Land Ltd have commissioned the geophysical survey and trenching work following consultation with the Suffolk County Council Archaeological Service Conservation Team (SCCAS/CT). The site lies within an area of high archaeological potential as defined by the HER records.

1.4 An archaeological desk-based assessment was compiled by the Suffolk County Council Archaeological Service Field Team (SCCAS/FT, 2011). This document identified the site as having a very high potential for Roman and medieval remains, and a moderate to high potential for Bronze Age remains.

1.5 This document is a Written Scheme of Investigation for the Archaeological Evaluation and magnetometer survey. All works will be carried out in accordance with IfA standards and guidance Any variations to the scope of work will be agreed with Berkeley Strategic Land Ltd and the Suffolk Archaeology Advisor prior to implementation.

2 Geology and Topography

2.1 The following archaeological information is summarised from the archaeological desk-based assessment (SCCAS/FT, 2011). For a complete background please refer to the Archaeological Desk-Based Assessment. A copy will be retained on site for the duration of the fieldwork.

2.2 The site is located between *circa* 45– 60m above sea level, at the eastern end of a shallow valley that is a small tributary of the River Lark.

2.2 The solid geology of the site is Lewes nodular chalk formation. This is overlain by head deposits in the north-west and sand in the south-east.

3 Historical and Archaeological Background

3.0 Early and Middle Bronze Age finds scatters including worked flints and palstaves have been recorded adjacent to the site to the north-west and to the east. Given the amount of material recovered it is likely that a settlement lies close by.

3.1 A 1957 excavation revealed the remains of an early Roman midden to the east of the site in the area known as the 'mound' (HER ref: BRG 001). Areas of extensive activity have been revealed through field walking to the north-east of the site as well as the discovery of a Roman bracelet. Six Roman coins have also been found to the west of the site.

3.2 An Anglo-Saxon inhumation was recorded 100m to the south of the site, various metal detected finds of Saxon date have been found close to the site.

3.3 An area of probable medieval industrial working has been recorded 50m south of the site. Features included ovens or kilns, rubbish pits, possible post built structures and enclosure ditches. The settlement of Cattishall to the east was already established in the 13th century. It is recorded in the HER (BRG 001) that 'Catteshill' was alleged to have been used for the medieval judicial court of the franchise of Bury St Edmunds. The first recorded meeting at Catteshill is in 1187.

3.4 The site remained open fields and heath until the area was enclosed at the beginning of the 19th century. A disused boundary ditch or trackway has been identified through aerial photographs in the south-west of the site, which runs on a south-west to north-eastern alignment.

4 Research aims and objectives

4.1 The aims of the evaluation are:

- To establish the presence or absence of prehistoric features on the site, and to record and characterise any such evidence.
- To establish the presence or absence of Roman features on the site, and to record and characterise any such evidence.
- To establish the presence or absence of medieval features on the site, and to record and characterise any such evidence.
- To identify, sample and analyse any environmental remains to aid understanding of the site.

- To determine the survival, extent and minimum depth below modern ground level of any archaeological remains.
- To determine the nature and significance of any archaeological deposits.
- To assess the upstanding structural remains at the area of the site known as the 'mound'.
- To enable the archaeology advisor at Suffolk County Council to make an informed decision as to the requirement for any further archaeological work at the site should planning consent be granted.

4.2 With reference to the Revised Research Framework for the East of England (ALGAO, 2011, 84), the site has the potential to address aspects of the following over-arching research themes:

Chronologies and processes of change:
Issues relating to chronologies and the process of change have been identified as having particular significance in establishing a better understanding of the development of the region's historic environment. These include the refining of artefact and monument chronologies, the development of time-transgressive maps, the application of scientific dating methods and the role of period versus calendrical dates.

Landscape and environment:
Human interaction with landscape and environment is central to archaeological study and work in the East of England has been at the forefront of this approach for the last 100 years. The importance of inter-relationships between sites and/or material remains and the recognition that plants, animals, fields and farms are as much part of cultural expression as monuments, pottery and personal adornment suggest… key avenues for further research.

5 Structural Remains Assessment Methodology

5.1 A Risk Assessment and Method Statement (RAMS) will be prepared prior to commencement of any work on site.

5.2 A site code (**BRG 076**) has been obtained from the Suffolk HER officer and will be used as the unique site identifier for all records.

5.3 The work will be undertaken by archaeologists with suitable experience in the study and recording of historic buildings.

5.4 The work will involve the compilation of an assessment of the walls and any associated upstanding remains at the area of the site known as the 'mound' (Fig. 2, NGR: TL 8847 6541). The written assessment will note the location of any upstanding structures, and describe their form,

function, date and sequence of development, and take into consideration information presented in the desk-based assessment for the site. The text will be illustrated by high quality digital photographic plates. A plan of the structures will be produced; on-site survey will be carried out using a Leica 1200 Total Station set up on a GPS laid out grid.

5.5 The results of the assessment will be presented as a concise report, which will include a list of contents, the background and introduction to the investigations, a methodology, historical evidence, description and analysis and any acknowledgments.

6 Magnetometer Survey Methodology

6.1 The magnetometer survey will be conducted by Stratascan on behalf of ASE, they will follow the methodology set out in this document and approved by SCC.

6.2 Bartington Grad 601-2 Fluxgate Gradiometer mounted on a cart where practicable will be used to survey the site. The site will be surveyed using 1 metre traverses with samples at every 0.25 metres within a 30 metre grid or part thereof as appropriate. This is a standard traverse and sample strategy for fluxgate gradiometer surveys. The fluxgate gradiometer is adept at detecting areas of burning (e.g. kilns and hearths), ditches and other cut features, larger pits, brick walls, dumps of ceramic/tile and other large scale archaeological activity.

6.3 The 30x30m survey grid will be set out using Differential GPS (DGPS) survey system enabling it to be accurately tied in the Ordnance Survey grid. This will enable an accurate geo-referencing of each survey grid. The set out will be performed by DGPS stakeout or Total Station Positioning System (TPS) stakeout, whichever is most appropriate for the site. All geophysical results will be referenced to the Ordnance Survey National Grid Reference (NGR).

7 Evaluation Methodology

7.1 A Risk Assessment and Method Statement (RAMS) will be prepared prior to commencement of the work.

7.2 A site code (**BRG 076.**) has been obtained from the Suffolk HER officer and will be used as the unique site identifier for all records.

7.3 100 trenches measuring 30m x 2m, representing 1% of the development area will be excavated. This sample excludes the fields in the east of the site which will be retained for open space. The location of the trenches will be set out in plan as the magnetometer results are released but will provide a roughly even coverage across the site,

primarily targeted on geophysical anomalies but also to test seemingly 'blank' areas. The proposed trench plan will be circulated to the client, landowner and Suffolk's representatives for comment prior to commencing work. No trenching work will commence until Suffolk have approved the trench plan. Once on site minor changes to trench locations may need to be made due to unforeseen site constraints. Any such variation will be reviewed and agreed by Berkley Strategic and the Suffolk Archaeology Advisor.

7.4 The trenches will be excavated using a suitable back-acting mechanical excavator fitted with a minimum 2m wide flat-bladed ditching bucket. The trenches will be excavated through undifferentiated topsoil and modern made ground in spits of no more than 0.25m until archaeological deposits are encountered or the top of the underlying natural sediments reached. Care will be taken that archaeological deposits are not damaged due to over machining. All machining will stop if significant archaeological deposits are encountered. In the event that any surface deposits are encountered (buried soil horizons etc.) they will be hand sampled in 1m squares to test their character/date before making a decision to remove by machine.

7.5 Any exposed archaeological features/deposits will then be cleaned by hand and recorded in plan and section. Made ground will be removed in areas where cores are being drilled to allow the recovery of intact samples.

8 Excavation and Recording Techniques

8.1 All hand excavation will be carefully undertaken and will follow the stratigraphy of any encountered archaeological layers, features and/or deposits.

8.2 In certain appropriate situations and should dry site conditions prevail, water will be used to aid the identification of exposed archaeological features and/or deposits to be hand excavated.

8.3 A sufficient sampling of archaeological features and/or deposits will be undertaken in order to determine their nature, date, condition, character and extent. This will comprise at least 10% of the length of linear features such as ditches in sections of up to 2 metres in length and at least 50% (or by half section) of the fills of other discrete archaeological features such as pits, postholes etc. Other specific features such as burials may require 100% sampling if necessary.

8.4 Should any human burials or remains be encountered the client and the Suffolk Archaeological Advisor will be immediately informed. No human remains will be lifted during the course of the evaluation.

8.5 The Suffolk Archaeological Advisor and Berkley Strategic will be informed at the earliest opportunity of any archaeological features or deposits worthy of preservation.

8.6 All excavated archaeological features; layers and/or deposits will be planned, photographed and recorded utilising the assigned site code. All excavated contexts; structures, features and deposits will be drawn on plastic film at a scale of 1:20. Additional plans at a scale of 1:10 will be made of specific features where appropriate, such as human inhumations or cremation burials. Sections of all excavated archaeological contexts will generally be drawn at a scale of 1:10, and where appropriate at a larger scale of 1:20. All site drawings will be digitised.

8.7 Bulk soil samples will be collected from datable excavated contexts of buried soils, well-sealed slowly silting features; sealed hearths; sealed features containing evident carbonised remains; peats; well-sealed closed features and water-logged deposits. A representative range of undated features if present will also be sampled. Soil samples will be taken in accordance with English Heritage Guidelines and be a minimum of 40-60 litres (where possible), or 100% of the context where this is smaller. A 20 to 30% sub-sample of each will be wet-sieved using 0.5mm meshes. Recovered material will be assessed in order to establish its potential for providing information relating to past environment and human activity. Additional guidance will be sought from the English Heritage Regional Science Advisor as appropriate. Allowance will be made for taking column samples and C14 dating if necessary.

8.8 A metal detector will be used on the site to check all archaeological horizons, fills and spoil heaps.

8.9 A full digital photographic record will be made of all archaeological features. All photographs, except working shots, will include a board that will detail: the site code, date and context number, a scale and a north arrow.

8.10 All archaeological remains will be recorded and levelled relative to Ordnance Datum by an archaeological surveyor, using DGPS (Differential Global Positioning System) technology. All archaeological features and deposits will be recorded using the standard context record sheets used by the UCL Field Archaeology Unit. Soil colours are recorded using visual inspection and not by reference to the Munsell Colour chart.

8.11 An ongoing site matrix will be compiled during the fieldwork stage, which will be fully phased during the subsequent post excavation stage.

9 Processing and identification of material recovered from excavation

9.1 The finds retrieval policies of the SCCAS will be adopted. All pottery, bone and worked flint recovered from the excavations will be washed and marked with the appropriate SCCAS site code to identify the site and context. Most ceramic and other building material and burnt flint will be identified, counted, weighed and discarded. Samples will be retained as appropriate. Finds will be bagged in polythene bags according to type and context.

9.2 Any unstratified finds from topsoil or other deposits will be collected and recorded in the same way as all other archaeological finds

9.3 Bulk samples collected from site will be processed using tank flotation unless considered detrimental to the samples or recovery rate (such as for waterlogged samples). Bulk samples will target recovery of plant remains (charcoal and macrobotanicals), fish, bird, small mammal and amphibian bone, and small artefacts. Waterlogged samples will be wet sieved through nested sieves and stored in wet, cool conditions or dried if considered an appropriate form of conservation for the remains. As a general rule waterlogged wood specimens will be recorded in detail in their original location. If removed they will be cleaned, photographed and a thin section sample will be taken for identification. Specimens will either be stored in wet cool conditions or dried if considered appropriate for the material. In all instances deposits with clear intrusive material shall be avoided.

9.4 All finds will be cleaned, labelled, sorted and analysed in accordance with the practices and standards outlined in the United Kingdom Institute for Conservation's Conservation Guidelines No.2: Guidelines for the Preparation of Excavation Archives for Long Term Storage.

9.5 Adequate arrangements will be made for the conservation of artefacts where appropriate in consultation and with the agreement of the recipient museum, in this case the Suffolk County Council Archaeology Services (SCCAS). All finds in an unstable condition will be stabilised using passive conservation techniques where appropriate before being deposited.

9.6 The provisions of the Treasure Act of 1996, amended 2003 will be observed. Should finds of precious metals such as gold and silver and other finds as defined under the Act be made, they will be reported to the client with a view to deposition with the Coroner's local Archaeological Advisor.

9.7 The site archive comprising paper, photographic and drawn records as well as finds will be kept in a secure location at all stages of the project.

9.8 The lithic and ceramic finds will be identified by specialists within ASE or external specialists, where necessary and preliminary identification of faunal remains may be undertaken if the nature of the deposits justifies such study.

9.9 The following specialists will be used if necessary and where appropriate:

Prehistoric and Roman pottery	Louise Rayner & Anna Doherty (ASE)
Prehistoric and Roman pottery	Nick Lavender (external: Essex region)
Post-Roman pottery	Luke Barber (external: Sussex, Kent and London)
Post-Roman pottery (Essex)	Helen Walker (external: Essex)
CBM	Sue Pringle & Luke Barber (external)
Fired Clay	Elke Raemen & Trista Clifford (ASE)
Clay Tobacco Pipe	Elke Raemen (ASE)
Glass	Elke Raemen (ASE)
Slag	Luke Barber, Lynne Keyes (external); Trista Clifford (ASE)
Metalwork	Trista Clifford (ASE)
Worked Flint	Karine Le Hégarat (ASE); Hugo Anderson-Whymark (external)
Geological material and worked stone	Luke Barber (external)
Human bone incl cremated bone	Lucy Sibun (ASE)
Animal bone incl fish	Gemma Ayton (ASE)
Marine shell	Elke Raemen (ASE); David Dunkin (external)
Registered Finds	Elke Raemen & Trista Clifford (ASE)
Coins	Trista Clifford (ASE)
Treasure administration	Trista Clifford (ASE)
Conservation and x-ray	Fishbourne Roman Villa or UCL Institute of Archaeology
Geoarchaeology	Dr Matt Pope & Liz Chambers (ASE)
Geoarchaeology (incl wetland environments)	Kristina Krawiec (ASE)
Macro-plant remains	Dr Lucy Allott & Karine Le Hégarat (ASE)
Charcoal & Waterlogged wood	Dr Lucy Allott & Dawn Elise Moony (ASE)

Other external specialists (regional, environmental, and scientific dating) are used dependent on needs of particular projects; details can be provided as required.

10 Reporting

10.1 A report will be produced within two working weeks of completion of the magnetometer survey. The geophysical survey report will follow guidelines set down by English Heritage (David 1995, 30) and will include:

- Non-technical summary
- Introduction (including aims and objectives)
- Site topography and geology
- Methodology
- Geophysical Survey Results
- Interpretation of Geophysical Results
- Conclusions
- Acknowledgements
- List of sources
- Appendices (Including Plots of Raw Data and evidence of survey control - these may be provided on data CD/DVD)
- Figures comprising of geophysical images and interpretation drawings at an appropriate scale.
- 100 word maximum HER summary sheet

10.2 Within four weeks of the completion of the evaluation a report on the results of the evaluation will be submitted. The report will include a list of contents, non-technical summary or abstract, and will cover the background and introduction to the investigations, which will include brief details of the history of the site, the local geology, a methodology, and archaeological and historical evidence and the significance of the site in a local and regional context and any acknowledgments. It will describe the work undertaken and results of elements described above. It will include a description of archaeological features and tabulated details of finds in each context. A list of environmental samples and any samples taken for dating will also be included. The report will include a site location map and a plan showing the location of trenches as excavated. Further plans and sections of features located and excavated will be included as necessary. All illustrations will be provided with appropriate scales.

10.3 An OASIS online record form will be initiated on the completion of the project and a paper copy added as an appendix to the Evaluation Report, along with a copy of the WSI. In addition a standard 100-word summary will be submitted to the annual round up of archaeological projects in the local journal.

10.4 The report will be submitted to SCCAS for approval and once approved distributed to the relevant bodies. A hard and digital copy of the report will be submitted to the HER once approved.

11 Preparation and deposition of the finds and archive

11.1 Permission will be sought from the landowner to deposit the finds and paper archive in an appropriate local museum, in this case the SCCAS. All necessary arrangements will be made and all procedures and requirements for the acceptance of finds and archive by the SCCAS will be followed prior to their deposition. The site archive will be quantified, indexed and cross-referenced and checked prior to deposition.

11.2 The full site archive (including finds) will be prepared in accordance with the SCCAS guidelines Deposition of Archaeological Archives in Suffolk (SCCAS, 2010).

12 Project Management

12.1 This project will be managed by Andy Leonard (fieldwork) and Jim Stevenson (post-excavation).

13 Monitoring

13.1 Provision will be made at all stages of the project for Berkley Strategic and the Suffolk Archaeological Advisor to monitor progress and standards. Adequate provision will be made available by ASE for the Archaeological Advisor to make site monitoring visits at agreed and specified times.

14 Health and Safety

14.1 A risk assessment for the project will be prepared prior to the commencement of work. All relevant health and safety regulations will be adhered to.

15 Insurance

15.1 Archaeology South-East is insured against claims for: employer's liability to the value of £50,000,000; public liability to the value of £50,000,000 any one occurrence and in the aggregate for products liability, with an extension for no fault compensation up to £50,000,000 in the aggregate; professional indemnity to the value of £50,000,000 any one occurrence.

16 References

ALGAO, 2011. Research and Archaeology Revisited: A Revised Framework for the East of England. East Anglian Archaeology Occasional Paper 24

Archaeology South-East, 2007 Post-Excavation Manual 1: Finds and Environmental Deposition and Processing Guidelines

Brown, 2007. Archaeological Archives. A guide to best practice in creation, compilation, transfer and curation. Archaeological Archives Forum 2007

English Heritage, 2008 Management of Research Projects in the Historic Environment

English Heritage, 2011 Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation

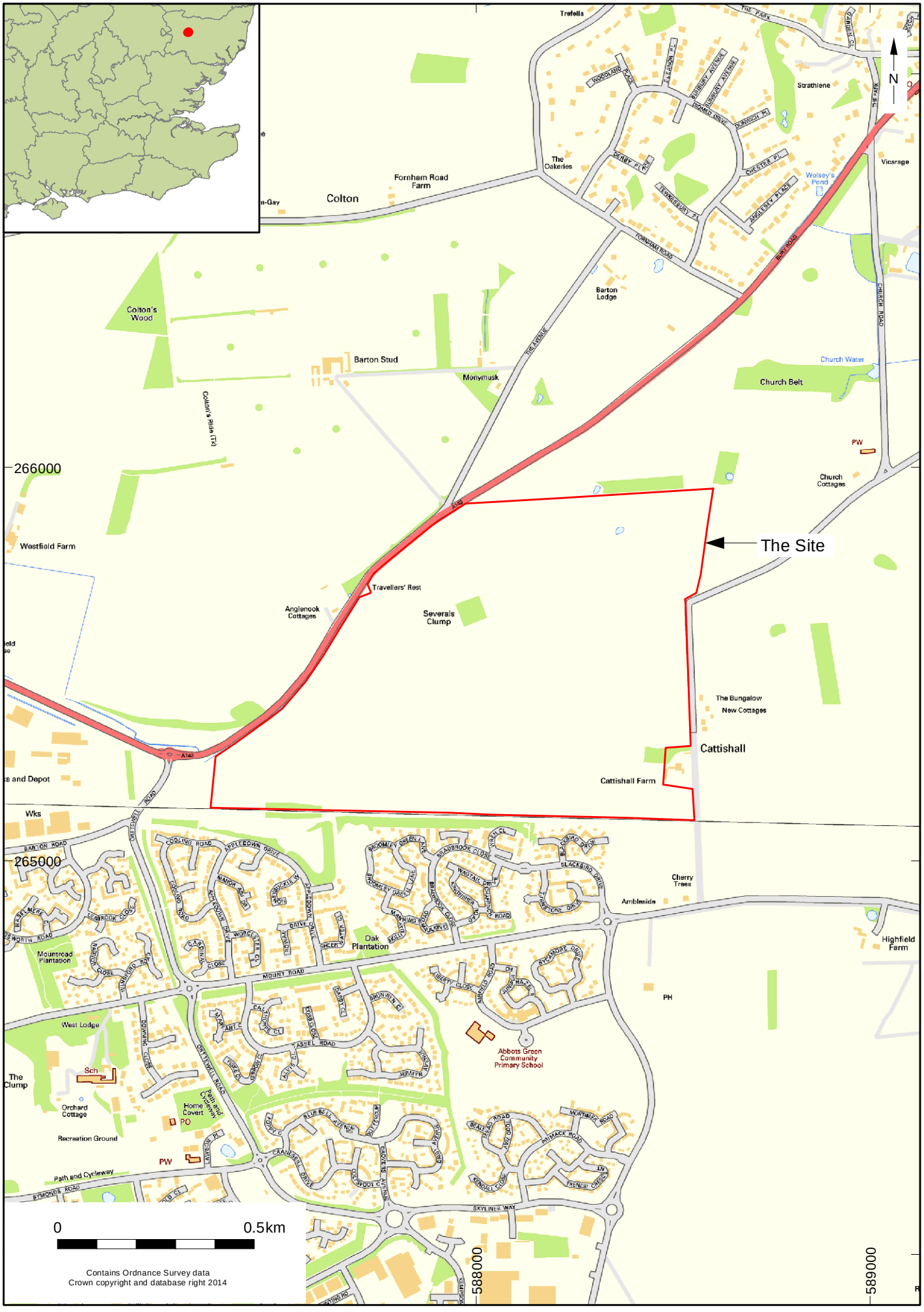
IfA, 2001 Standard and Guidance for the collection, documentation, conservation and research of archaeological materials

SCCAS, 2010. Deposition of Archaeological Archives in Suffolk

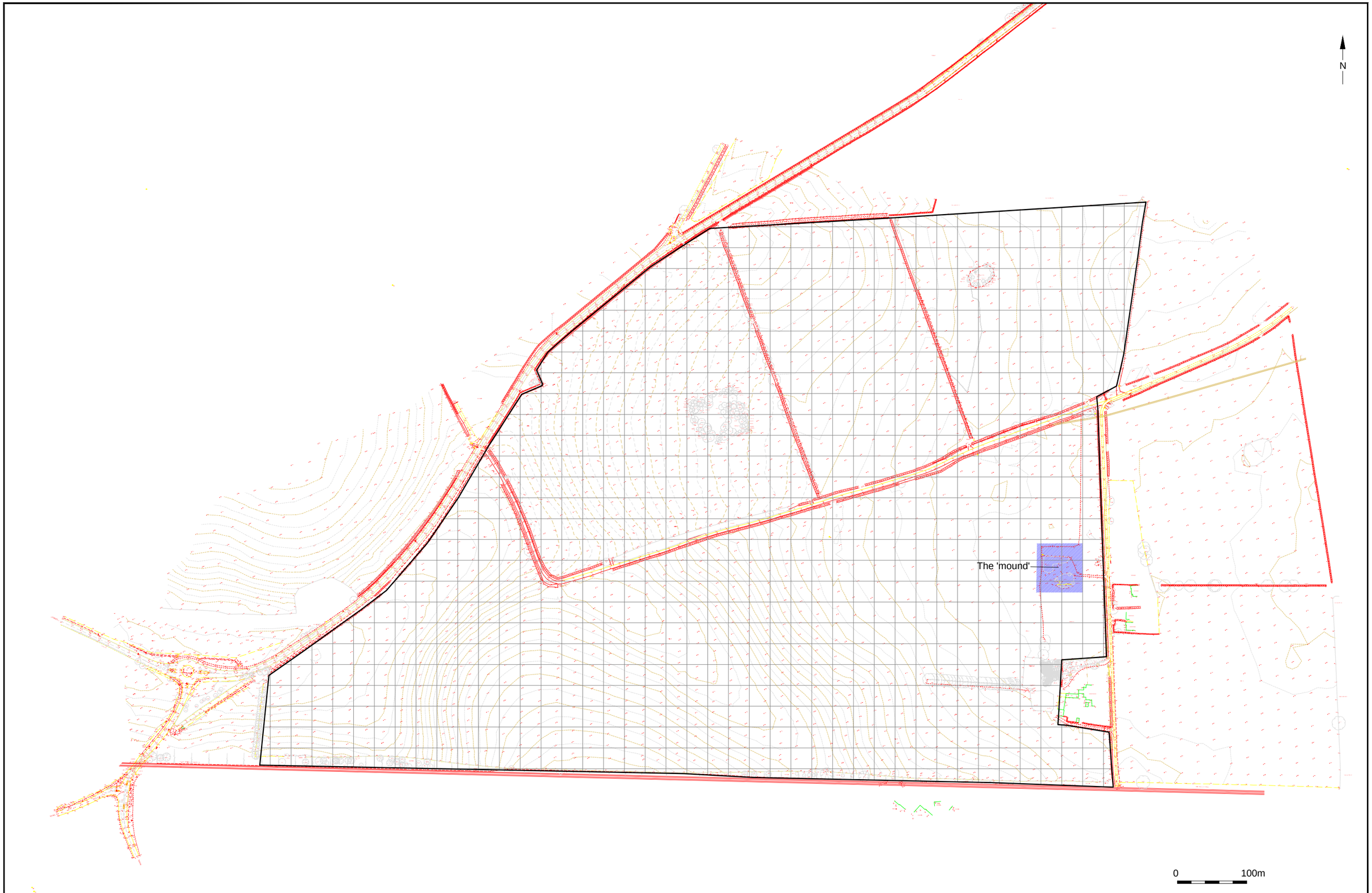
SCCAS/FT, 2011. Land to the north of Bury St Edmonds, Great Barton, Suffolk. Archaeological Desk-Based Assessment. SCCAS Report No. 2011/066.

SCCAS/CT, 2014. Brief for a Preliminary Archaeological Evaluation at land Northeast of Bury St Edmunds, Suffolk.

Society of Museum Archaeologists, 1993 Selection, Retention and Dispersal of Archaeological Collections, Guidelines for use in England, Wales and Northern Ireland, (1st ed).



© Archaeology South-East		Land north-east of Bury St Edmunds	Fig. 1
Project Ref: 7083	Sept 2014	Site location	
Report Ref:	Drawn by: JLR		



É **Archaeology South-East**		Land north-east of Bury St Edmunds	Fig. 2
Project Ref: 7083	Sept 2014	Location of geophysics survey and grid	
Report Ref:	Drawn by: JLR		

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