Cotswold Archaeology

Land at Rose Hill Farm
Kenton
Suffolk

Archaeological Evaluation

For
Mr T. Denton-Cardew

CA Project: SU0094
CA Report: SU0094_1
HER Event No: KNN029

January 2020

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LIST OF ILLUSTRATIONS

SUMMARY

Project Name:	Land at Rose Hill Farm
Location:	Kenton, Suffolk
NGR:	619922 265913
Type:	Evaluation
Date:	7 January 2020
Planning Reference:	DC/19/00674
Location of Archive:	To be deposited with SCCAS County Store
Site Code:	KNN 029
HER Search Ref:	9232911
OASIS ID:	377261

An archaeological evaluation was undertaken by Cotswold Archaeology in January 2020 at Rose Hill Farm, Kenton. Five trenches were excavated.

No features of archaeological relevance were observed in any of the trenches. A small quantity of finds was recovered from topsoil and subsoil deposits including two post-medieval buttons, an unidentified possible coin and two further items of metalwork (possibly mount fragments) as well as sherds of medieval and post-medieval pottery. The site has likely been lying within an open landscape in probable agricultural use since the medieval period, with the finds deriving from accidental loss or small-scale rural manuring associated with the nearby moated medieval/post-medieval site of Suddon Hall.

1. INTRODUCTION

1.1 In January 2020 Cotswold Archaeology (CA) carried out an archaeological evaluation for Mr T. Denton-Cardew at Rose Hill Farm, Kenton (centred at NGR: 619922 265913; Fig. 1). The evaluation was required by a condition on planning application DC/19/00674 for the construction of a new underground rifle range on land adjacent to Webbs Road.

1.2 The evaluation was carried out in accordance with a Brief for archaeological evaluation (dated 22/11/2019) prepared by Matthew Baker of Suffolk County Council Archaeological Service (SCCAS), the archaeological advisor to the Local Planning Authority (LPA, Mid Suffolk District Council), and with a subsequent detailed *Written Scheme of Investigation* (WSI) produced by CA (Appendix E) and approved by Matthew Baker. The fieldwork also followed the *SCC Requirements for Trenched Archaeological Evaluation* (SCC 2019) and *Standard and guidance: Archaeological field evaluation* (CIfA 2014). The fieldwork was monitored by Gemma Stewart of SCCAS, with verbal descriptions and digital images of the trenching being provided in lieu of a site visit.

The site

1.3 The proposed development area is approximately 0.4ha and comprises a narrow strip of land adjacent to Webb Road, currently used as grazing land and a small hardstanding field entrance/storage area. The site lies at approximately 57.5m above Ordnance Datum (AOD) at the northern end, descending to 56m AOD at the south, and lies on the southern side of a plateau of relatively high ground. The natural slope continues to gradually descend to a drain, 400m to the south, which runs south-east towards, and eventually joins, the River Deben.

1.4 The underlying bedrock geology of the area is mapped as Crag Group sands of the Quaternary and Neogene geological era (up to 5 million years ago) with superficial deposits of Lowestoft Formation Diamicton dating from the Quaternary period (up to 2 million years ago) (BGS 2020). The geology observed in the trenches was a light yellowish brown silty clay.

2. ARCHAEOLOGICAL BACKGROUND

2.1 The SCCAS Brief originally stated that '*This site lies in an area of archaeological potential recorded on the County Historic Environment Record, near a medieval moated site, (KNN 005) and a scatter of medieval pottery along the roadside. (KNN 014). There are also several Roman finds of pottery and metalwork in the vicinity (KNN 006, 007, 024). Thus, there is high potential for the discovery of below-ground heritage assets of archaeological importance within this area, and groundworks associated with the development have the potential to damage or destroy any archaeological remains which exist*.'

2.2 A search of the Suffolk Historic Environment Record (HER) was commissioned from SCCAS and this revealed a total of sixteen *monument* entries within 1km of the site (Fig. 2). The full results of the search are held within the digital project archive.

2.3 Three entries are of Roman date and include a small pit found in a pipeline trench, filled with black earth and Roman pottery, *c.*400m to the south (KNN 006), a later 3rd-4th century pottery scatter *c.*800m to the south (KNN 007) and the findspot of a trumpet bronze brooch *c.*400m to the west (KNN 024).

2.4 The remaining records are of medieval or post-medieval date. The medieval moated site of Suddon Hall (KNN 005) lies *c.*150m to the east where monitoring has identified the infilled moat and a probable medieval/post-medieval bridge (KNN 020). The 19th century stable and coach house of Suddon Hall are recorded as KNN 022 and a pottery scatter of 12th-14th century date (KNN 014) lies *c.*50m-100m to the north of the site and Suddon Hall.

2.5 A medieval moat lies *c.*900m to the east at Hill Farm (MKS 002), within which is an outline record for Monk Soham House (MKS 021). The site of the medieval/post-medieval Monk Soham Green (MKS 009) and an adjacent medieval croft (MKS 004) lie *c.*900m to the northeast.

2.6 The Church of All Saints (KNN 008) lies *c.*700m to the west, together with the medieval/post-medieval site of Church Farm (KNN 016) and a moat at the Old Vicarage site (KNN 004) where an undated pit with charcoal, animal bone and frequent oyster shell has also been observed in monitoring of a garage development (KNN 012).

2.7 Cropmarks of an undated rectilinear enclosure and large ditch overlain by rectangular field system are noted 1km to the east (MKS 010).

2.8 Examination of historic Ordnance Survey mapping available online (NLS 2019) shows little change in the wider area since the late 19th century, other than the loss of multiple boundaries as fields have been amalgamated. In 1883, 1903 and 1947 the arable field in which the development lies was sub-divided into three, with the proposed rifle range lying wholly within the northernmost of these and being crossed by a public footpath.

3. AIMS AND OBJECTIVES

3.1 The objectives of the evaluation are to provide information about the archaeological resource within the site, including its presence/absence, character, extent, date, integrity, state of preservation and quality, in accordance with *Standard and guidance: Archaeological field evaluation* (CIfA 2014). This information will enable SCCAS, as advisors to the LPA to identify and assess the particular significance of any heritage asset, consider the impact of the proposed development upon it, and to avoid or minimise conflict between the heritage asset's conservation and any aspect of the development proposal, in line with the *National Planning Policy Framework* (MHCLG 2019).

4. METHODOLOGY

4.1 The fieldwork comprised the excavation of 5 trenches (1.8m wide, two 30m long trenches, two 15m long trenches and one 20m long trench), in the locations shown on the attached plan (Fig. 2). The trenches were arrayed to investigate the footprint of the proposed rifle range to the north of the existing hardstanding area. The southernmost trench had to be moved slightly north as there were obstructions at its original planned position, and was then shortened to permit vehicle movement into and out of the field with the approval of SCCAS. Trenches were set out on OS National Grid (NGR) co-ordinates using a Leica GNSS system (GS08+) and surveyed in accordance with CA Technical Manual 4 *Survey Manual*.

4.2 All trenches were excavated by mechanical excavator equipped with a toothless

grading bucket. All machine excavation was undertaken under constant archaeological supervision to the top of the first significant archaeological horizon or the natural substrate, whichever was encountered first. Where archaeological deposits were encountered they were excavated by hand in accordance with CA Technical Manual 1: *Fieldwork Recording Manual*.

4.3 Deposits were assessed for their palaeoenvironmental potential in accordance with CA Technical Manual 2: *The Taking and Processing of Environmental and Other Samples from Archaeological Sites* and no deposits were identified that required sampling. All artefacts recovered were processed in accordance with Technical Manual 3 *Treatment of Finds Immediately after Excavation*.

4.4 The archive and artefacts from the evaluation are currently held by CA at their offices in Needham Market. Subject to the agreement of the legal landowner the artefacts will be deposited with the Suffolk County Council County Archive, along with the site archive. A summary of information from this project, set out within Appendix D, will be entered onto the OASIS online database of archaeological projects in Britain.

5. RESULTS (FIG 2)

5.1 This section provides an overview of the evaluation results; detailed summaries of the recorded contexts are to be found in Appendix A.

5.2 All five trenches had a similar profile with a layer of mid greyish brown silty clay with moderate small-medium stone inclusions (top/ploughsoil) overlying a shallow layer of subsoil (mid yellowish brown compact silty clay with sparse small-medium stone inclusions and some chalk flecking) directly above natural silty clays (light yellowish brown silty clay with frequent chalk flecking and moderate small-large stones). No archaeological features or deposits were observed but a small quantity of finds and registered artefacts were retrieved from topsoil and subsoils.

Trench No	Width	Length	Depth to Natural	Orientation	Topsoil Depth
1	1.8m	15m	0.46m	NW/SE	0.35m
2	1.8m	30m	0.41m	NE/SW	0.34m
3	1.8m	15m	0.38m	NW/SE	0.32m
4	1.8m	30m	0.46m	NE/SW	0.34m
5	1.8m	15m	0.39m	NW/SE	0.29m

Table 1. Trench details

6. THE FINDS

Report by Stephen Benfield, with Ruth Beveridge: *Registered artefacts*.

Introduction

6.1 A few pottery sherds of medieval and post-medieval date as well as a small piece of ceramic building material (CBM) and piece of coal were recovered as bulk finds. The CBM is probably from a tile of medieval or later date and the coal is probably of post-medieval or modern date. In addition there are a small number of individually numbered registered artefacts (RA), also commonly referred to as small finds, all of which are metal and are reported separately below. Where these can be closely dated they are of post-medieval date. All of the finds come from soil layers (topsoil and subsoil) located in Trench I and Trench 2. It can be noted that there are no bulk environmental samples. The bulk finds are listed by context in Appendix B, Table 1.

Pottery

6.2 The pottery is listed by context in Appendix B, Table 2. The pottery fabrics referred to follow the Suffolk post-Roman pottery fabric series (unpublished).

6.3 There are two sherds of sandy Medieval coarseware (Fabric MCW) (weight 15g) and a single sherd of Glazed red earthenware (Fabric GRE) (weight 2g). All come from the same soil layer, context (200), located in Trench 2. Medieval coarseware pottery of this type can be broadly dated to the period of the late 12th-14th century. The single sherd of Glazed red earthenware belongs to a broad group of post-medieval pottery common during the 16th-18th century, but which continues to be produced into the 19th century. The sherd here is glazed on both the internal and external surface and most probably dates from the period of the 17th-18th century.

Other bulk finds

6.4 *Ceramic building material (CBM)*

A single, slightly abraded piece of CBM with damaged ?surfaces was recovered from layer context (100). This is in a relatively fine, sandy, orange coloured fabric. The piece has one surviving edge and is c. 10mm thick. While not entirely clear, it seems very likely to be a piece from a flat roof tile, probably a peg-tile, current from the medieval period into the early modern era. While appearing in the late 12th century in London (Eogan 1998, 28) peg tiles only begin to be in relatively common use in London and Essex from the period of the 13th-14th century onwards (*ibid* 28; Ryan

and Andrews 1993, 97). This same dating can almost certainly be applied to East Anglia and southern England in general.

Coal

6.5 A small piece (2g) of black coal was recovered from layer context (200). While not closely dated, it is likely to date to the post-medieval or modern era.

Registered artefacts (RA)

Introduction

6.6 Five metal objects from the site were individually numbered and recorded as registered artefacts. A full catalogue listing and description of each is provided in Appendix B, Table 4.

6.7 The five registered artefacts are all of copper alloy and were retrieved during metal detecting of the topsoil and subsoil layers. They include two items that are pieces of mounts or fittings (RA 4 and RA 5); a worn, flat discoidal object that could be a coin (RA 2) and two buttons (RA 1 and RA 3). The most datable object is RA 1 which was recovered from topsoil layer (100) in Trench 1. It is a complete, cast early post-medieval openwork button dating to *c*. AD 1500-1700. In profile the button is bi-conical; it is hollow with six oval shaped perforations in each half of the object and a small central nipple. On the back of the button is an integral post and loop fixing. Similar examples were recorded in the Norwich metalwork assemblages (Margeson 1993, fig. 11 no. 102), representing the earliest type of buttons recovered and comparable to buttons found in Amsterdam (*ibid*, 20).

6.8 In addition to the five registered artefacts another four pieces of metalwork were recovered from topsoil on the site. These include lead waste and a copper alloy fitting from agricultural machinery. It is recommended that these pieces should be discarded. A copper alloy coin, a 1937 George VI wren farthing, which came from the topsoil in Trench 2, will be returned to the landowner.

7. DISCUSSION

7.1 The trenching revealed a uniform stratigraphy of agricultural ploughsoil overlying a thin subsoil and natural geology. No deposits or features of archaeological relevance were encountered. The small number of finds recovered are most likely to relate to accidental loss or small-scale rural manuring of agricultural fields over time.

7.2 The stratigraphic and finds evidence therefore suggests that the site has likely been lying within an open landscape in probable agricultural use since the medieval period, the finds likely deriving from its close proximity to the moated medieval/post-medieval site of Suddon Hall and position alongside Webbs Road and the access lane to Suddon Hall.

7.3 There is no evidence to suggest that the site has ever been the location of any earlier activity and the proposed development is unlikely to have any impact upon archaeological deposits.

8. CA PROJECT TEAM

Fieldwork was undertaken by Simon Cass, assisted by Georgina Palmer. The report was written by Simon Cass. The finds and registered artefact reports were written by Steve Benfield and Ruth Beveridge respectively. The illustrations were prepared by Ryan Wilson. The archive has been compiled and prepared for deposition by Ruth Beveridge. The project was managed for CA by John Craven.

9. REFERENCES

CIfA (Chartered Institute for Archaeologists), 2014, *Standard and Guidance for Archaeological Field Evaluation*. Reading.

Eogan, G., 1998, *The medieval household, medieval finds from excavations in London: 6*, Museum of London

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Ryan, P., and Andrews, D., 1993, 'A brick and tile typology for Cressing Temple', in Andrews, D., *Cressing Temple, a Templer and Hospitaller manor in Essex*, 93-99, Essex County Council

MHCLG (Ministry of Housing, Communities and Local Government), 2019, *National Planning Policy Framework.*

SCCAS, 2019, *Requirements for a Trenched Archaeological Evaluation.*

Websites

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NLS (National Library of Scotland) 2019 https://maps.nls.uk Accessed 11/12/2019.

APPENDIX A: CONTEXT DESCRIPTIONS

Trench No.	Context No.	Type	Context interpretation	Description	Depth (m)	Spot-date
1	100	Layer	Topsoil	Mid greyish brown silty clay with moderate small-medium stone inclusions	0.35	Modern
1	101	Layer	Subsoil	Mid yellowish brown compact silty clay with sparse small-medium stone inclusions and some chalk flecking	0.11	
1	102	Layer	Natural	Light yellowish brown silty clay with frequent chalk flecking and moderate small-large stones	0.08	
2	200	Layer	Topsoil	Mid greyish brown silty clay with moderate small-medium stone inclusions	0.34	Modern
2	201	Layer	Subsoil	Mid yellowish brown compact silty clay with sparse small-medium stone inclusions and some chalk flecking	0.07	
2	202	Layer	Natural	Light yellowish brown silty clay with frequent chalk flecking and moderate small-large stones	0.05	
3	300	Layer	Topsoil	Mid greyish brown silty clay with moderate small-medium stone inclusions	0.32	Modern
3	301	Layer	Subsoil	Mid yellowish brown compact silty clay with sparse small-medium stone inclusions and some chalk flecking	0.06	
3	302	Layer	Natural	Light yellowish brown silty clay with frequent chalk flecking and moderate small-large stones	0.06	
4	400	Layer	Topsoil	Mid greyish brown silty clay with moderate small-medium stone inclusions	0.34	Modern
4	401	Layer	Subsoil	Mid yellowish brown compact silty clay with sparse small-medium stone inclusions and some chalk flecking	0.12	
4	402	Layer	Natural	Light yellowish brown silty clay with frequent chalk flecking and moderate small-large stones	0.06	
5	500	Layer	Topsoil	Mid greyish brown silty clay with moderate small-medium stone inclusions	0.29	Modern
5	501	Layer	Subsoil	Mid yellowish brown compact silty clay with sparse small-medium stone inclusions and some chalk flecking	0.10	
5	502	Layer	Natural	Light yellowish brown silty clay with frequent chalk flecking and moderate small-large stones	0.02	

APPENDIX B: THE FINDS

Table 1 Bulk finds by context (initial processing quantification)

Context	Pottery		CBM		Coal		Spotdate (initial processing)
	No.	Wt/g	No.	Wt/g	No.	Wt/g	
100			1	9			
200	3	17			1	2	Pottery - Med and P-med
Totals	*3*	*17*	*1*	*9*	*1*	*2*	

Table 2 Pottery by context

Context	Trench	Feature/ layer no.	F/L type	Find type	Period	Fabric	Form	Sherd type	No.	Wt/g	EVE	Abr/ brt	Pots (min No)	Description/ comments	Pottery dating
200	2	Layer (topsoil)		pot	med	MCW			2	15		(A)	2		L12-14C
200	2	Layer (topsoil)		pot	p-med	GRE			1	2			1	Internal and external glaze	c. 16/17-18C

Table 3 Other bulk finds by context

Context	Trench	Feature/ layer	F/L type	Find type	Material/ specific type	Fabric	No	Wt/g	Abrad.	Description/ comments	Spot date/ (associated dating)
100	1	Layer (topsoil)		CBM	?tile	f-ms	1	9	(A)	Relatively fine (f-ms - fine-medium sand), orange, fabric c. 10mm tjhick but not clear if full thickness. Not closely dated, but probably peg tile (med-p-med)	?med-post-med prob. c. 13C+
200	2	Layer (topsoil)		coal			1	2		Small piece of black coal, not closely dated, likely to be post-medieval or later	?post-med/ mod

Table 4 Registered artefacts

Registered Artefact No.	Context No.	Object	Material	Frag. No.	Weight (g)	Description	Depth (mm)	Width (mm)	Length (mm)	Diameter (mm)	Period
1	100 (topsoil)	Button	Copper alloy	1	2.6	A complete, cast openwork button dating to c1500-1700. The object is biconical in plan and hollow with six ovoid perforations in each half of the object. It has a small central nipple and an attached post and loop fixing element on the rear. The button is similar to one in Read 2005, page 30, number 93.	26.8			22	Post-medieval
2	101 (subsoil)	Cu Coin	Copper alloy	1	2.6	Complete flat, discoidal object. Worn surfaces masked by dirt. Possibly remains of an inscription around the edges suggesting it could be a coin.	1.4			20	
3	100 (topsoil)	Button	Copper alloy	1	3.8	An incomplete possible tombac (copper-zinc alloy) button of c.AD 1600 - 1800 date. The button is circular in plan with a flat back and convex front. The back of the button and damaged attachment loop are masked by dirt.	12.9			14	Post-medieval
4	200 (topsoil)	Mount?	Copper alloy	1	65.5	Piece of cast plate copper alloy; sub-rectangular in plan. It has raised curve-linear decoration along one edge. Possibly from a plate mount or escutcheon?	3.4	65.3	65.7		
5	201 (subsoil)	Mount?	Copper alloy	1	11	Incomplete, cast, elongate object. One of the external, longitudinal edges angles so that the width of the object decreases. At this point the object is bent inwards in profile. It has a central, circular perforation at the widest end. At the point the object narrows there is a second, unsuccessful perforation and an incomplete, square shaped eye.	4	21.8	29.4		

APPENDIX C: LEVELS OF PRINCIPAL DEPOSITS AND STRUCTURES

Levels are expressed as metres below current ground level and as metres Above Ordnance Datum (AOD), as recorded by the GPS survey equipment.

	Trench 1	Trench 2	Trench 3	Trench 4	Trench 5
Current ground level	NW end 57.52m SE end 57.52m	NE end 57.42m SW end 57.20m	NW end 56.92m SE end 56.95m	NE end 56.69m SW end 56.57m	NW end 56.43m SE end 56.25m
Limit of excavation	NW end 0.34m (57.18m) SE end 0.28m (57.24m)	NE end 0.33m (57.09m) SW end 0.35m (56.85m)	NW end 0.32m (56.60m) SE end 0.38m (56.57m)	NE end 0.27m (56.42m) SW end 0.43m (56.14m)	NW end 0.35m (56.08m) SE end 0.17m (56.08m)

Upper figures are depth below modern ground level; lower figures in parentheses are metres AOD.

APPENDIX D: OASIS REPORT FORM

OASIS ID: cotswold2-377261	
Project details	
Project name	Land at Rose Hill Farm
Short description of the project	An archaeological evaluation was undertaken by Cotswold Archaeology in January 2020 at Rose Hill Farm, Kenton. Five trenches were excavated. No features of archaeological relevance were observed in any of the trenches. A small quantity of finds was recovered from topsoil and subsoil deposits including two post-medieval buttons, an unidentified possible coin and two further items of metalwork (possibly mount fragments) as well as sherds of medieval and post-medieval pottery. The site has likely been lying within an open landscape in probable agricultural use since the medieval period, with the finds deriving from accidental loss or small-scale rural manuring associated with the nearby moated medieval/post-medieval site of Suddon Hall.
Project dates	Start: 06-01-2020 End: 29-01-2020
Previous/future work	No / Not known
Any associated project reference codes	DC/19/00674 - Planning Application No.
Any associated project reference codes	KNN 029 - Sitecode
Type of project	Field evaluation
Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Monument type	N/A None
Significant Finds	N/A None
Methods & techniques	"Sample Trenches"
Development type	Rural commercial
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	After full determination (eg. As a condition)
Project location	
Country	England
Site location	SUFFOLK MID SUFFOLK KENTON Land at Rose Hill Farm
Study area	0.4 Hectares
Site coordinates	TM 1992 6591 52.246822314154 1.221962722298 52 14 48 N 001 13 19 E Point
Height OD / Depth	Min: 56m Max: 57.5m
Project creators	
Name of Organisation	Cotswold Archaeology
Project brief originator	Suffolk County Council Archaeological Services
Project design originator	Cotswold Archaeology
Project director/manager	John Craven
Project supervisor	Simon Cass
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Mt T Denton-Cardew
Project archives	

Physical Archive recipient	Suffolk County Council Archaeological Services
Physical Contents	"Ceramics","Metal"
Digital Archive recipient	Suffolk County Council Archaeological Services
Digital Contents	"Ceramics","Metal"
Digital Media available	"Database","GIS","Images raster / digital photography","Text"
Paper Archive recipient	Suffolk County Council Archaeological Archive
Paper Contents	"Ceramics","Metal"
Paper Media available	"Context sheet","Report","Section"
Project bibliography	
Publication type	Grey literature (unpublished document/manuscript)
Title	Land at Rose Hill Farm, Kenton, Suffolk
Author(s)/Editor(s)	Cass,. C
Other bibliographic details	Cotswold Archaeology Report No. SU0094_1
Date	2020
Issuer or publisher	Cotswold Archaeology
Place of issue or publication	Needham Market
Description	Cotswold Archaeology A4 eval report

Land at Rose Hill Farm, Kenton, Suffolk

Written Scheme of Investigation for an Archaeological Evaluation

CA Project: SU0094
OASIS ID: 377261
HER reference: KNN 029

DOCUMENT CONTROL GRID						
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B	19/12/2019	J CRAVEN		FINAL	CURATOR COMMENT	J CRAVEN

CONTENTS

1. INTRODUCTION

1.1 A program of archaeological evaluation to assess the site of a subterranean shooting range development on land at Rose Hill Farm, Kenton, Suffolk (Fig. 1) for heritage assets is required by a condition on planning application DC/19/00674, in accordance with paragraph 199 of the National Planning Policy Framework (MHCLG 2019).

1.2 The work required is detailed in a Brief (dated 22/11/2019, Appendix C) produced by Matthew Baker of Suffolk County Council Archaeological Service (SCCAS), the archaeological advisor to the Local Planning Authority (LPA) Mid Suffolk District Council.

1.3 Cotswold Archaeology (CA) has been contracted to carry out the evaluation project. This Written Scheme of Investigation (WSI) details how the requirements of the Brief will be met, and has been submitted to SCCAS for approval, prior to lodging with the planning authority. It provides the basis for measurable standards and will be adhered to in full. Any subsequent changes to the specifications agreed in this WSI will be communicated directly to SCCAS for approval.

1.4 This WSI has been guided in its composition by *Standard and guidance: Archaeological field evaluation* (CIfA 2014), *Standards for Field Archaeology in the East of England* (Gurney 2003), the *Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide* (Historic England 2015) and any other relevant standards or guidance contained within Appendix B.

1.5 It should be noted that this document represents a WSI for the archaeological evaluation ONLY; this document alone will NOT result in the discharge of the archaeological condition. The evaluation is only a first stage in a potential program of works and further fieldwork, reporting and publication may be required if archaeological deposits are identified. Such works could have considerable time and cost implications for the development and the client is advised to consult with SCCAS as to their obligations following receipt of the evaluation report. Any future stages of work will require new documentation (Brief, WSI etc.).

The site

1.6 The area to be directly affected by the development measures *c.*0.4ha and lies within an arable field at NGR: 61986 26580. The proposed development consists of a

partially subterranean rifle range, which will be covered by a bund, with a small building complex and carpark at its southern end. The development runs along the western edge of the field, parallel to the adjacent hedge/ditch boundary and road. The proposed carpark lies within an existing area of hardcore hardstanding, which is to simply be resurfaced during the development, and so is not to be targeted by trenching.

1.7 The site is broadly flat, descending from 57.5m above Ordnance Datum (AOD) at the northern end, to 56m at the south, and lies on the southern side of a plateau of relatively high ground. The natural slope continues to gradually descend to a drain, 400m to the south, which runs south-east towards, and eventually joins, the River Deben.

1.8 The British Geological Survey (BGS) website records the sites superficial deposits as being Lowestoft Formation diamicton. These superficial deposits overlie a sedimentary bedrock of Crag Group sand (BGS 2019).

2. ARCHAEOLOGICAL BACKGROUND

2.1 The SCCAS Brief states that *'This site lies in an area of archaeological potential recorded on the County Historic Environment Record, near a medieval moated site, (KNN 005) and a scatter of medieval pottery along the roadside. (KNN 014). There are also several Roman finds of pottery and metalwork in the vicinity (KNN 006, 007, 024). Thus, there is high potential for the discovery of below-ground heritage assets of archaeological importance within this area, and groundworks associated with the development have the potential to damage or destroy any archaeological remains which exist.'*

2.2 In addition to the sites mentioned above an initial examination of the Suffolk Historic Environment Record (HER) data available online (Suffolk Heritage Explorer 2019) shows several other entries within 1km of the site, predominantly of medieval date. Cropmarks of an undated rectilinear enclosure and large ditch overlain by rectangular field system are noted 1km to the east (MKS 010). Medieval sites include a moat 900m to the west at Hill Farm, the site of Monk Soham Green (MKS 009) and an adjacent croft (MKS 004) 900m to the northeast, the medieval/post-medieval site of Church Farm (KNN016) 600m to the west, the Church of All Saints (KNN 008) 700m

to the west and a moat at the Old Vicarage site (KNN004) 750m to the west where an undated pit with charcoal, animal bone and frequent oyster shell has also been observed in monitoring of a garage development (KNN 012). A full search of the SCCAS Historic Environment Record (HER) has been commissioned and will be used to inform the final report and interpretation of the fieldwork results.

2.3 Examination of historic Ordnance Survey mapping available online (NLS 2019) shows little change in the wider area, other than the loss of multiple boundaries as fields have been amalgamated since the late 19th century. In 1883, 1903 and 1947 the arable field in which the development lies was sub-divided into three, with the proposed rifle range lying wholly within the northernmost of these and being crossed by a public footpath.

3. AIMS AND OBJECTIVES

3.1 The objectives of the evaluation are to provide information about the archaeological resource within the site, including its presence/absence, character, extent, date, integrity, state of preservation and quality. In accordance with *Standard and guidance: Archaeological field evaluation* (CIfA 2014), the evaluation has been designed to be minimally intrusive and minimally destructive to archaeological remains. The information gathered will enable SCCAS to identify and assess the particular significance of any heritage asset, consider the impact of the proposed development upon it, and to avoid or minimise conflict between the heritage asset's conservation and any aspect of the development proposal, in line with the *National Planning Policy Framework* (MHCLG 2019).

3.2 If significant archaeological remains are identified, reference will be made to the Regional Research Framework for the East of England (Medlycott 2011), so that the remains can, if possible, be placed within their local and regional context.

4. METHODOLOGY

Preparation

4.1 An event number has been obtained from the Suffolk HER and will be included on all future project documentation. An OASIS online record (377261) has been initiated and key fields in details, location and creator forms have been completed.

Excavation and recording

4.2 The project Brief requires 5% of the 0.4ha application area to be evaluated, with trenches positioned to samples all areas of the site. This amounts to *c.*110m of 1.8m wide trenches and a proposed trench plan is included as Figure. 2. The trench plan is designed to avoid work under or within 10m of a set of overhead powerlines which cross the centre of the site. If necessary minor modifications to the trench plan may be made onsite to respect any previously unknown buried services, areas of disturbance, contamination or other obstacles.

4.3 The trenching will be set out on OS National Grid (NGR) co-ordinates using Leica GPS and scanned for live services by trained Cotswold Archaeology staff using CAT and Genny equipment in accordance with the Cotswold Archaeology *Safe System of Work for avoiding underground services*. The final 'as dug' trench plan will be recorded with GPS.

4.4 Once marked out, the line of the trenching will be metal-detected by an experienced CA (Steve Hunt, Michael Green) or freelance (Steve Clarkson) metal-detectorist, prior to commencement of excavation.

4.5 The trenching will be excavated using a machine equipped with a back-acting arm and toothless ditching bucket (measuring at least 1.8m wide), under the supervision of an archaeologist. All overburden (topsoil and subsoil) will be removed stratigraphically until either the first archaeological horizon or natural deposits are encountered. The trenching is likely to range from 0.3m to 0.6m deep. Modern deposits, topsoil and subsoil will be stored separately adjacent to each trench.

4.6 If a trench requires access by staff for hand excavation and recording, it will not exceed a depth of 1.2m. If the trench depth is not sufficient to meet the archaeological requirements of the Brief it will be brought to the attention of SCCAS so that further requirements can be established. Deeper excavation can be undertaken, where practicable, provided the trench sides are stepped or battered and/or suitable trench support is used. However, such a variation will incur further costs to the client and time must be allowed for this to be established and agreed.

4.7 The trenching sides, bases and archaeological surfaces will be cleaned by hand as necessary to identify archaeological deposits and artefacts and allow decisions to be

made on the method of further investigation by the Project Officer. Further use of the machine, i.e. to investigate thick sequences of deposits by excavation of test pits etc., may be undertaken as necessary after consultation with SCCAS.

4.8 Metal detector searches (non-discriminating against iron) will take place throughout the project, both prior to and during machine excavation, and the subsequent hand-excavation phase, by the experienced metal-detectorist.

4.9 Sample excavation of archaeological deposits will be limited and minimally intrusive, sufficient to achieve the aims and objectives identified in Section 3 above. Where appropriate excavation will not compromise the integrity of the archaeological record, and will be undertaken in such a way as to allow for the subsequent protection of remains either for conservation or to allow more detailed investigations to be conducted under better conditions at a later date, after approval from SCCAS. All exposed archaeological features will be investigated and recorded by hand, unless otherwise agreed with SCCAS. Investigation slots through all linear features will be at least 1m in width. The sampling strategy will comprise a 50% sample of non-structural discrete features (e.g. pits and postholes) and a minimum 1m wide section across linear features including ditches, gullies, beam slots etc. Metal detecting will be undertaken at regular intervals as features are excavated. Unless otherwise agreed with the SCCAS, surviving structural elements and domestic/industrial features (e.g. hearths, walls etc) will be exposed and sufficiently cleaned to determine their date and function wherever possible but otherwise left in-situ.

4.10 Following machining, all archaeological features revealed will be planned and recorded in accordance with *CA Technical Manual 1: Fieldwork Recording Manual*. Each context will be recorded on a pro-forma context sheet by written and measured description; principal deposits will be recorded by drawn plans (scale 1:20 or 1:50, or electronically using Leica GPS or Total Station (TST) as appropriate) and drawn sections (scale 1:10 or 1:20 as appropriate). Where detailed feature planning is undertaken using GPS/TST this will be carried out in accordance with *CA Technical Manual 4: Survey Manual*. Photographs (digital colour – 18mp, 5184x3456 pixels in raw and .jpg format) will be taken as appropriate. All finds and samples will be bagged separately and related to the context record. All artefacts will be recovered and retained for processing and analysis in accordance with *CA Technical Manual 3: Treatment of Finds Immediately after Excavation*.

4.11 Trenches will not be backfilled without the prior approval of SCCAS unless otherwise agreed. Trenches will be backfilled, subsoil first then topsoil, and compacted to ground-level, unless otherwise specified by the client. Original ground surfaces will not be reinstated but will be left as neat as practicable.

Artefact retention and discard

4.12 All pre-modern finds will be kept and no discard policy will be considered until all the finds have been processed and assessed.

4.13 All finds will be brought back to the CA Suffolk Office finds department at the end of each day for processing, quantifying, packing and, where necessary, preliminary conservation. Finds will be processed and receive an initial assessment during the fieldwork phase and this information will be fed back to site to inform the on-site evaluation methodology. Any finds of Treasure will, following excavation and recording, be lifted and removed to the CA Suffolk office on the day of recovery. All reasonable and practicable steps will be taken to ensure that no significant, sensitive (e.g. human remains) or intrinsically valuable finds or remains are left exposed overnight. In the event of significant discoveries the need for additional site security will be reviewed with the client and SCCAS.

Human remains

4.14 In the case of the discovery of human remains (skeletal or cremated), at all times they should be treated with due decency and respect. For each situation, the following actions are to be undertaken:

- If human remains are encountered guidelines from the Ministry of Justice will be followed and the Coroner and SCCAS informed.

- In line with the recommendations *Guidance for best practice for the treatment of Human remains excavated from Christian Burial Grounds in England* (APABE 2017) human burials should not be disturbed without good reason. SCCAS will be consulted to determine the subsequent work required but it is expected that the evaluation will attempt to establish the extent, depth and date of burials whilst leaving remains in-situ. During the evaluation any exposed human remains will be securely covered and hidden from the public view at all times when they are not attended by staff.

- Where further disturbance is unavoidable, or full exhumation of the remains is deemed necessary, this will be conducted in accordance with the law and following the provisions of the Coroners Unit in the Ministry of Justice. All excavation and post-excavation processes will be in accordance with the standards set out in *CIfA Technical Paper No 7 Guidelines to the Standards for recording Human Remains* (CIfA 2004).

- On completion of full recording and analysis, the remains, where appropriate, will be reburied or kept as part of the project archive. At the conclusion of the work backfilling will be carried out in a manner sensitive to the preservation of such remains.

Environmental remains

4.15 Due care will be taken to identify deposits which may have environmental potential, and where appropriate, a programme of environmental sampling will be initiated. This will follow the Historic England environmental sampling guidelines outlined in *Environmental Archaeology, A guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* ((Campbell *et al* 2011), and *CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites.* The sampling strategy will be adapted for the specific circumstances of this site, in close consultation with the CA Environmental Officer, but will follow the general selection parameters set out in the following paragraphs.

4.16 Secure and phased deposits, especially those related to settlement activity and/or structures will be considered for sampling for the recovery of charred plant remains, charcoal and mineralised remains. Any cremation-related deposits will be sampled appropriately for the recovery of cremated human bone and charred remains. If any evidence of *in situ* metal working is found, suitable samples for the recovery of slag and hammer scale will be taken. Bulk environmental samples will be 40l minimum or 100% of context where less than 40l is available.

4.17 Where sealed waterlogged deposits are encountered, samples for the recovery of waterlogged remains, insects, molluscs and pollen, as well as any charred remains, will be considered. The taking of sequences of samples for the recovery of molluscs and/or waterlogged remains will be considered through any suitable deposits such as deep enclosure ditches, barrow ditches, palaeo-channels, or buried soils. Monolith

samples may also be taken from this kind of deposit as appropriate to allow soil and sediment description/interpretation as well as sub-sampling for pollen and other micro/macrofossils such as diatoms, foraminifera and ostracods.

4.18 The need for any more specialist samples, such as OSL, archaeomagnetic dating and dendrochronology will be evaluated and will be taken in consultation with the relevant specialist.

4.19 The processing of the samples will be done in conjunction with the relevant specialist following the Historic England general environmental processing guidelines (Campbell *et al* 2011). Flotation or wet sieve samples will be processed to 0.25mm. Other more specialist samples such as those for pollen will be prepared by the relevant specialist. Further details of the general sampling policy and the methods of taking and processing specific sample types are contained within *CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites*.

Treasure

4.20 CA will comply fully with the provisions of the Treasure Act 1996 and the Code of Practice referred to therein. If an object qualifies as Treasure it will be reported to the Suffolk Finds Liaison Officer (who then reports to the Coroner) within 14 days of the object's discovery and identification, the client will further be informed. Treasure objects will immediately be removed to secure storage, with appropriate on-site security measures taken if required. Employees of CA, their subcontractors, or any volunteers under their control will not be eligible for any share of a treasure reward.

5. STAFF AND TIMETABLE

5.1 This project will be under the management of John Craven MCIfA, Project Manager, CA.

5.2 The staffing structure will be organised thus: the Project Manager will direct the overall conduct of the evaluation as required during the period of fieldwork. Day to day responsibility however will rest with the Project Officer who will be on-site throughout the project.

5.3 The field team will consist of a maximum of 3 staff (eg 1 Project Officer and 1 Archaeologists).

5.4 It is envisaged that the project will require approximately 1 days fieldwork. Analysis of the results and subsequent reporting will take up to a further 3 weeks.

5.5 Specialists who will be invited to advise and report on specific aspects of the project as necessary are:

Ceramics	Sue Anderson M Phil, MCIFA, FSA (freelance)
	Steve Benfield BA (CA)
	Richenda Goffin BA MCIfA (CA)
	Sarah Percival MA MCIFA (freelance)
Metalwork	Dr Ruth Beveridge (CA)
Flint	Michael Green (CA)
	Sarah Bates BA (freelance)
Animal Bone	Julie Curl (freelance))
Human Bone	Sue Anderson M Phil, MCIFA, FSA (freelance)
Environmental Remains	Anna West BSc (CA)

5.6 Depending upon the nature of the deposits and artefacts encountered it may be necessary to consult other specialists not listed here. A full list of specialists currently used by Cotswold Archaeology is contained within Appendix A.

6. POST-EXCAVATION, ARCHIVING AND REPORTING

6.1 Following completion of fieldwork, all artefacts and environmental samples will be processed, assessed, conserved and packaged in accordance with CA Technical Manuals and SCCAS guidelines (SCCAS 2019). A recommendation will be made regarding material deemed suitable for disposal/dispersal.

6.2 An illustrated report will be compiled on the results of the fieldwork and assessment of the artefacts, palaeoenvironmental samples etc. The report will include:

(i) an abstract containing the essential elements of the results preceding the main body of the report.

(ii) a summary of the project's background;

(iii) description and illustration of the site location;

(iv) a methodology of the works undertaken;

(v) integration of, or cross-reference to, appropriate cartographic and documentary evidence and the results of other research undertaken, where relevant to the interpretation of the evaluation results;

(vi) a description of the project's results;

(vii) an interpretation of the results in the appropriate context;

(viii) a summary of the contents of the project archive and its location (including summary catalogues of finds and samples);

(ix) a site location plan at an appropriate scale on an Ordnance Survey, or equivalent, base-map;

(x) a plan showing the location of the trenches and exposed archaeological features and deposits in relation to the site boundaries;

(xi) plans of each trench, or part of trench, in which archaeological features are recognised. These will be at an appropriate scale to allow the nature of the features exposed to be shown and understood. Plans will show the orientation of trenches in relation to north. Section drawing locations will be shown on these plans. Archaeologically sterile areas will not be illustrated unless this can provide information on the development of the site stratigraphy or show palaeoenvironmental deposits that have influenced the site stratigraphy;

(xii) appropriate section drawings of trenches and features will be included, with OD heights and at scales appropriate to the stratigraphic detail being represented. These will show the orientation of the drawing in relation to north/south/east/west. Archaeologically sterile trenches will not be illustrated unless they provide significant information on the development of the site stratigraphy or show palaeoenvironmental deposits that have influenced the site stratigraphy;

(xiii) photographs showing significant features and deposits that are referred to in the text. All photographs will contain appropriate scales, the size of which will be noted in the illustration's caption;

(xiv) a consideration of evidence within the context of the Regional Research Framework for the East of England (Medlycott 2011).

(xv) a summary table and descriptive text showing the features, classes and numbers of artefacts recovered and soil profiles with interpretation;

(xvi) specialist assessment or analysis reports where undertaken;

(xvii) an evaluation of the methodology employed and the results obtained (i.e. a confidence rating);
(xviii) A copy of the project OASIS form as an appendix;
(xix) A copy of the project WSI as an appendix.

6.3 Specialist artefact and palaeoenvironmental assessment will take into account the wider local/regional context of the archaeology and will include:

(i) specialist aims and objectives
(ii) processing methodologies (where relevant)
(iii) any known biases in recovery, or problems of contamination/residuality
(iv) quantity of material; types of material present; distribution of material
(v) for environmental material, a statement on abundance, diversity and preservation
(vi) summary and discussion of the results to include significance in a local and regional context

6.4 Copies of the draft report will be distributed to the Client or their Representative and to the LPA's Archaeological Advisor thereafter for verification and approval. Thereafter, copies of the approved report will be issued to the Client, LPA's Archaeological Advisor and the Suffolk Historic Environment Record (HER). Reports will be issued in digital format (PDF/PDFA as appropriate) and a hard copy will be supplied to the HER along with shapefiles containing location data for the areas investigated, if required.

6.5 Should no further work be required, an ordered, indexed, and internally consistent site archive will be prepared and deposited in accordance with *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation* (Archaeological Archives Forum 2007).

Academic dissemination

6.6 Subject to any contractual constraints, a summary of information from the project will be entered onto the OASIS online database of archaeological projects in Britain [OASIS reference number 377261], including the upload of a digital (PDF) copy of the final report, which will appear on the Archaeology Data Service (ADS) website once the OASIS record has been verified.

6.7 A summary note will be produced, suitable for inclusion within the annual 'Archaeology in Suffolk' section of the Proceedings of the Suffolk Institute of Archaeology and History.

6.8 A digital .pdf copy of the approved report will be supplied to the Historic England Science Advisor if it contains the results of palaeoenvironmental investigation, industrial residue assessments or other scientific analyses.

Public dissemination

6.8 In addition to the ADS website, a digital (PDF) copy of the final report will also be made available for public viewing via Cotswold Archaeology's *Archaeological Reports Online* web page, generally within 12 months of completion of the project (http://reports.cotswoldarchaeology.co.uk/).

Archive deposition

6.9 The project archive, consisting of the complete artefactual assemblage, and all paper and digital records, will be held in the CA Archaeological Store at Needham Market, Suffolk, until deposition, within 6 months of completion of fieldwork, with the SCCAS Archive store. If CA is engaged to carry out any subsequent stages of fieldwork then deposition of the evaluation archive may be delayed until the full archive is completed. The project archive will be consistent with MoRPHE (Historic England 2015) and ICON guidelines.

6.10 An unbound copy of the report will be included with the project archive.

6.11 The project costing includes a sum to meet SCCAS archive charges. A form transferring ownership of the finds archive to SCCAS will be completed and included in the project archive.

6.12 If the landowner does not agree to transfer ownership to SCCAS the client will be required to nominate another suitable repository approved by SCCAS or provide funding for additional recording and analysis of the finds archive (such as, but not limited to, additional photography or illustration of objects) to the satisfaction of SCCAS. In the rare event that artefacts of significant monetary value are discovered, separate ownership arrangements may be negotiated, provided they are not subject to Treasure Act legislation.

6.13 Exceptions from the deposition of the archive described above include:

- Objects that qualify as Treasure, as detailed by the Treasure Act 1996. Any material which is eventually declared as Treasure by a Coroners Inquest will, if not acquired by a museum, be returned to CA and the project archive.

- Human skeletal remains. The client/landowner by law will have no claim to ownership of human remains and any such will be stored by CA, in accordance with a Ministry of Justice licence, until a decision is reached upon their long term future, i.e. reburial or permanent storage.

6.14 CA will retain copyright of all documentation and records but a form granting SCCAS a perpetual, royalty free, licence will be included in the archive.

7. HEALTH, SAFETY AND ENVIRONMENT

7.1 CA will conduct all works in accordance with the Health and Safety at Work Act 1974 and all subsequent Health and Safety legislation, CA Health and Safety and Environmental policies and the CA Safety, Health and Environmental Management System (SHE), as well as any Principal Contractor's policies or procedures. A site-specific Construction Phase Plan (form SHE 017) will be formulated prior to commencement of fieldwork.

8. INSURANCES

8.1 CA holds Public Liability Insurance to a limit of £10,000,000 and Professional Indemnity Insurance to a limit of £10,000,000.

9. MONITORING

9.1 SCCAS will be given 2 weeks notice of the commencement of the fieldwork and arrangements will b emade for SCCAS visits to enable the works to be monitored effectively. SCCAS will be kept regularly informed about developments both during the site works and subsequent post-excavation work.

10. QUALITY ASSURANCE

10.1 CA is a Registered Organisation (RO) with the Chartered Institute for Archaeologists (RO Ref. No. 8). As a RO, CA endorses the *Code of Conduct* (CIfA 2014) and the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (CIfA 2014). All CA Project Managers and most Project Officers hold either full Member or Associate status within the CIfA.

10.2 CA operates an internal quality assurance system in the following manner. Projects are overseen by a Project Manager who is responsible for the quality of the project. The Project Manager reports to the Chief Executive who bears ultimate responsibility for the conduct of all CA operations. Matters of policy and corporate strategy are determined by the Board of Directors, and in cases of dispute recourse may be made to the Chairman of the Board.

11. PUBLIC ENGAGEMENT, PARTICIPATION AND BENEFIT

11.1 This project will not afford opportunities for public engagement or participation during the course of the fieldwork. However, the results will be made publicly available on the ADS and Cotswold Archaeology websites, as set out in Section 6 above, in due course.

12. STAFF TRAINING AND CPD

12.1 CA has a fully documented mandatory Performance Management system for all staff which reviews personal performance, identifies areas for improvement, sets targets and ensures the provision of appropriate training within CA's adopted training policy. In addition, CA has developed an award-winning Career Development Programme for its staff, which ensures a consistent and high quality approach to the development of appropriate skills.

12.2 As part of the company's requirement for Continuing Professional Development, all members of staff are also required to maintain a Personal Development Plan and an associated log which is reviewed within the Performance Management system. All

staff are subject to probationary periods on appointment, with monthly review; for site-based staff additional monthly Employee Performance Evaluations measure and record skills and identify training needs.

13. REFERENCES

APABE (Advisory Panel on the Archaeology of Burials in England) 2017 *Guidance for best practice for the treatment of Human remains excavated from Christian Burial Grounds in England, 2nd Edition.*

Campbell. G, Moffett. L and Straker V., 2011, Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition). Portsmouth: English Heritage.

CIfA Technical Paper No 7 Guidelines to the Standards for recording Human Remains (CIfA 2004).

Gurney, D., 2003, Standards for Field Archaeology in the East of England. East Anglian Archaeology Occasional Paper No 14.

Historic England, 2015, Management of Research in the Historic Environment (MoRPHE).

Medlycott, M. (Ed), 2011, Research and Archaeology Revisited: A revised framework for the East of England. EAA Occasional Paper 24.

MHCLG (Ministry of Housing, Communities and Local Government), 2019, *National Planning Policy Framework.*

SCCAS, 2019, *Archaeological Archives in Suffolk. Guidelines for Preparation and Deposition.*

Websites

BGS (British Geological Survey) 2019 *Geology of Britain Viewer* http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html Accessed 11/12/2019.

NLS (National Library of Scotland) 2019 https://maps.nls.uk Accessed 11/12/2019.

Suffolk Heritage Explorer 2019 https://heritage.suffolk.gov.uk Accessed 11/12/2019.

APPENDIX A: COTSWOLD ARCHAEOLOGY SPECIALISTS

Ceramics

Neolithic/Bronze Age	Ed McSloy BA MCIFA (CA) Emily Edwards (freelance) Dr Elaine Morris BA PhD FSA MCIFA (University of Southampton) Anna Doherty MA (Archaeology South-east) Sarah Percival MA MCIFA (freelance) Steve Benfield BA (CA)
Iron Age/Roman	Ed McSloy BA MCIFA (CA) Kayt Marter Brown BA MSc MCIFA (freelance) Steve Benfield BA (CA)
(Samian)	Gwladys Montell MA PhD (freelance) Steve Benfield BA (CA)
(Amphorae stamps)	Dr David Williams PhD FSA (freelance)
Anglo-Saxon	Paul Blinkhorn BTech (freelance) Dr Jane Timby BA PhD FSA MCIFA (freelance) Sue Anderson, M Phil, MCIFA, FSA (freelance)
Medieval/post-medieval	Ed McSloy BA MCIFA (CA) Kayt Marter Brown BA MSc MCIFA (freelance) Stephanie Ratkai BA (freelance) Paul Blinkhorn BTech (freelance) John Allan BA MPhil FSA (freelance) Richenda Goffin BA MCIFA (CA) Sue Anderson M Phil, MCIFA, FSA (freelance)
South West	Henrietta Quinnell BA FSA MCIFA (University of Exeter)
Clay tobacco pipe	Reg Jackson MLitt MCIFA (freelance) Marek Lewcun (freelance) Kieron Heard (freelance) Richenda Goffin BA MCIFA (CA)
Ceramic Building Material	Ed McSloy MCIFA (CA) Dr Peter Warry PhD (freelance) Sue Anderson M Phil, MCIFA, FSA (freelance) Richenda Goffin Roman painted wall plaster, CBM, BA MCIFA (CA) Steve Benfield BA (CA)

Other Finds

Small Finds	Ed McSloy BA MCIFA (CA) Richenda Goffin, (non-metalwork) BA MCIFA (CA) Steve Benfield CA Dr I Riddler (freelance) Dr Alison Sheridan, National Museum of Scotland
Metal Artefacts	Katie Marsden BSc (CA) Dr Ruth Beveridge (CA) Dr Jörn Schuster MA DPhil FSA MCIFA (freelance) Dr Hilary Cool BA PhD FSA (freelance) Dr I Riddler (freelance)
Lithics	Ed McSloy BA MCIFA (CA) Jacky Sommerville BSc MA PCIFA (CA) Michael Green (CA) Sarah Bates BA (freelance)
(Palaeolithic)	Dr Francis Wenban-Smith BA MA PhD (University of Southampton)
Worked Stone	Dr Ruth Shaffrey BA PhD MCIFA (freelance) Dr Kevin Hayward FSA BSc MSc PhD PCIFA (freelance)

Inscriptions	Dr Roger Tomlin MA DPhil, FSA (Oxford)
Glass	Ed McSloy MCIFA (CA) Dr Hilary Cool BA PhD FSA (freelance) Dr David Dungworth BA PhD (freelance; English Heritage) Dr Sarah Paynter (Historic England) Dr Rachel Tyson (freelance) Dr Hugh Wilmott (University of Sheffield)
Coins	Ed McSloy BA MCIFA (CA) Dr Ruth Beveridge (CA) Dr Peter Guest BA PhD FSA (Cardiff University) Dr Richard Reece BSc PhD FSA (freelance) Jude Plouviez (freelance) Dr Andrew Brown (British Museum) Dr Richard Kelleher (Fitzwilliam Museum) Dr Philip de Jersey (Ashmolean Museum)
Leather	Quita Mould MA FSA (freelance)
Textiles	Penelope Walton Rogers FSA Dip Acc. (freelance) Sue Harrington (freelance)
Iron slag/metal technology	Dr Tim Young MA PhD (Cardiff University) Dr David Starley BSc PhD Lynne Keys (freelance)
Worked wood	Michael Bamforth BSc MCIFA (freelance)

Biological Remains

Animal bone	Dr Philip Armitage MSc PhD MCIFA (freelance) Dr Matilda Holmes BSc MSc ACIFA (freelance) Julie Curl (freelance) Lorrain Higbee (Wessex Archaeology)
Human Bone	Sharon Clough BA MSc MCIFA (CA) Sue Anderson M Phil, MCIFA, FSA (freelance)
Environmental sampling	Sarah Wyles BA PCIFA (CA) Sarah Cobain BSc MSc ACIFA (CA) Dr Keith Wilkinson BSc PhD MCIFA (ARCA) Anna West BSc (CA) Val Fryer (freelance)
Pollen	Dr Michael Grant BSc MSc PhD (University of Southampton) Dr Rob Batchelor BSc MSc PhD MCIFA (QUEST, University of Reading)
Diatoms	Dr Tom Hill BSc PhD CPLHE (Natural History Museum) Dr Nigel Cameron BSc MSc PhD (University College London)
Charred Plant Remains	Sarah Wyles BA PCIFA (CA) Sarah Cobain BSc MSc ACIFA (CA)
Wood/Charcoal	Sarah Cobain BSc MSc ACIFA(CA) Dana Challinor MA (freelance) Dr Esther Cameron (freelance)
Insects	Enid Allison BSc D.Phil (Canterbury Archaeological Trust) Dr David Smith MA PhD (University of Birmingham)
Mollusca	Sarah Wyles BA PCIFA (CA)

	Dr Keith Wilkinson BSc PhD MCIFA (ARCA)
Ostracods and Foraminifera	Dr John Whittaker BSc PhD (freelance)
Fish bones	Dr Philip Armitage MSc PhD MCIFA (freelance)
Geoarchaeology	Dr Keith Wilkinson BSc PhD MCIFA (ARCA)
Soil micromorphology	Dr Richard Macphail BSc MSc PhD (University College London)
Scientific Dating	
Dendrochronology	Robert Howard BA (NTRDL Nottingham)
Radiocarbon dating	SUERC (East Kilbride, Scotland) Beta Analytic (Florida, USA)
Archaeomagnetic dating	Dr Cathy Batt BSc PhD (University of Bradford)
TL/OSL Dating	Dr Phil Toms BSc PhD (University of Gloucestershire)
Conservation	Karen Barker BSc (freelance) Pieta Greaves BSc MSc ACR (Drakon Heritage and Conservation) Julia Park-Newman (Conservation Services, freelance)

APPENDIX B: ARCHAEOLOGICAL STANDARDS AND GUIDELINES

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

AAI&S 1988 *The Illustration of Lithic Artifacts: A guide to drawing stone tools for specialist reports.* Association of Archaeological Illustrators and Surveyors Paper **9**

AAI&S 1994 *The Illustration of Wooden Artifacts: An Introduction and Guide to the Depiction of Wooden Objects.* Association of Archaeological Illustrators and Surveyors Paper **11**

AAI&S 1997. *Aspects of Illustration: Prehistoric pottery*. Association of Archaeological Illustrators and Surveyors Paper **13**

AAI&S nd *Introduction to Drawing Archaeological Pottery*. Association of Archaeological Illustrators and Surveyors, Graphic Archaeology Occasional Papers **1**

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AEA 1995 *Environmental Archaeology and Archaeological Evaluations. Recommendations concerning the environmental archaeology component of archaeological evaluations in England*. Working Papers of the Association for Environmental Archaeology No. **2**

BABAO and IFA, 2004 *Guidelines to the Standards for Recording Human Remains*. British Association for Biological Anthropology and Osteoarchaeology and Institute of Field Archaeologists. Institute of Field Archaeologists Technical Paper 7 (Reading)

Barber, B., Carver, J., Hinton, P. and Nixon, T. 2008 *Archaeology and development. A good practice guide to managing risk and maximising benefit*. Construction Industry Research and Information Association Report C672

Bayley, J. (ed) 1998 *Science in Archaeology. An agenda for the future*. English Heritage (London)

Bewley, R., Donoghue, D., Gaffney, V., Van Leusen, M., Wise, M., 1998 *Archiving Aerial Photography and Remote Sensing Data: A guide to good practice*. Archaeology Data Service

Blake, H. and P. Davey (eds) 1983 *Guidelines for the processing and publication of Medieval pottery from excavations, report by a working party of the Medieval Pottery Research Group and the Department of the Environment*. Directorate of Ancient Monuments and Historic Buildings Occasional Paper 5, 23-34, DoE, London

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Brickstock, R.J. 2004 *The Production, Analysis and Standardisation of Romano-British Coin Reports*. English Heritage (Swindon)

Brown, A. and Perrin, K. 2000 *A Model for the Description of Archaeological Archives*. English Heritage Centre for Archaeology/ Institute of Field Archaeologists (Reading)

Brown, D.H. 2007 *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation.* IFA Archaeological Archives Forum (Reading)

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Suffolk County Council

The Archaeological Service

APPENDIX C: SCCAS BRIEF

Growth, Highways and Infrastructure
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Brief for a Trenched Archaeological Evaluation

AT

Land at Rose Hill Farm, Kenton, Stowmarket

PLANNING AUTHORITY:	Mid Suffolk District Council
PLANNING APPLICATION NUMBER:	DC/19/00674
HER NO. FOR THIS PROJECT:	To be arranged with the Suffolk HER Officer (archaeology.her@suffolk.gov.uk)
GRID REFERENCE:	TM 19922 65913
DEVELOPMENT PROPOSAL:	Construction of an underground shooting range and landscaping
AREA:	*0.4ha*
THIS BRIEF ISSUED BY:	Matthew Baker Archaeological Officer Tel. : 01284 741329 E-mail: matthew.baker@suffolk.gov.uk
Date:	22st November 2019

Summary

1.1 Planning permission has been granted with the following conditions relating to archaeological investigation:

13. No development shall take place within the area indicated [the whole site] until the implementation of a programme of archaeological work has been secured, in accordance with a Written Scheme of Investigation which has been submitted to and approved in writing by the Local Planning Authority.

The scheme of investigation shall include an assessment of significance and research questions; and:

a. The programme and methodology of site investigation and recording.
b. The programme for post investigation assessment.

c. Provision to be made for analysis of the site investigation and recording.
d. Provision to be made for publication and dissemination of the analysis and records of the site investigation.
e. Provision to be made for archive deposition of the analysis and records of the site investigation.
f. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.
g. The site investigation shall be completed prior to development, or in such other phased arrangement, as agreed and approved in writing by the Local Planning Authority.

14. No building shall be occupied until the site investigation and post investigation assessment has been completed, submitted to and approved in writing by the Local Planning Authority, in accordance with the programme set out in the Written Scheme of Investigation approved under Condition 1 and the provision made for analysis, publication and dissemination of results and archive deposition.

1.2 This brief stipulates the minimum requirements for the archaeological investigation and should be used in conjunction with the Suffolk County Council Archaeology Service's (SCCAS) Requirements for Archaeological Evaluation 2019. These should be used to form the basis of the Written Scheme of Investigation (WSI).

1.3 The archaeological contractor, commissioned by the applicant, must submit a copy of their WSI to SCCAS for scrutiny, before seeking approval from the LPA.

1.4 Following acceptance by SCCAS, it is the commissioning body's responsibility to submit the WSI to the LPA for formal approval. No fieldwork should be undertaken on site without the written approval of the LPA. The WSI, however, is not a sufficient basis for the discharge of a planning condition relating to archaeological investigation. Only the full implementation of the scheme, both completion of fieldwork and reporting (including the need for any further work following this evaluation), will enable SCCAS to advise the LPA that a condition has been adequately fulfilled and can be discharged.

1.5 The WSI should be approved before costs are agreed with the commissioning client, in line with the Chartered Institute for Archaeologists' guidance. Failure to do so could result in additional and unanticipated costs.

1.6 The WSI will *provide the basis for measurable standards* and will be used to establish whether the requirements of the brief will be adequately met. If the approved WSI is not carried through in its entirety (unless a variation is agreed by SCCAS), the evaluation report may be rejected.

1.7 Decisions on the need for any further archaeological investigation (e.g. excavation) will be made by SCCAS, in a further brief, based on the results presented in the evaluation report. Any further investigation must be the subject of a further WSI, submitted to SCCAS for scrutiny and formally approved by the LPA.

Archaeological Background

2.1 This site lies in an area of archaeological potential recorded on the County Historic Environment Record, near a medieval moated site, (KNN 005) and a scatter of medieval pottery along the roadside. (KNN 014). There are also several Roman finds of pottery and metalwork in the vicinity (KNN 006, 007, 024). Thus, there is high potential for the discovery of below-ground heritage assets of archaeological importance within this area, and groundworks associated with the development have the potential to damage or destroy any archaeological remains which exist.

Planning Background

3.1 The below-ground works will cause ground disturbance that has potential to damage any archaeological deposit that exists.

3.2 The Planning Authority were advised that any consent should be conditional upon an agreed programme of work taking place before development begins in accordance with paragraph 199 of the National Planning Policy Framework, to record and advance understanding of the significance of any heritage assets (that might be present at this location) before they are damaged or destroyed.

Fieldwork Requirements for Archaeological Investigation

4.1 A linear trenched evaluation is required of the development area to enable the archaeological resource, both in quality and extent, to be accurately quantified.

4.2 Trial Trenching is required to:

- Identify the date, approximate form and purpose of any archaeological deposit, together with its likely extent, localised depth and quality of preservation.
- Evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits.
- Establish the potential for the survival of environmental evidence.
- Provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.

4.3 Trial trenches are to be excavated to cover 5% by area. Linear trenches are thought to be the most appropriate sampling method, where possible, covering the footprint of the rifle range and landscaping. Trenches are to be a minimum of 1.80m wide unless special circumstances can be demonstrated; this will result in *c*. 110m of trenching at 1.80m in width, see the attached plan. Further trenching or deposit testing may be a requirement of the site monitoring visit if unclear archaeological remains or geomorphological features present difficulties of interpretation, or to assist with the formulation of a mitigation strategy. Appropriate provision should be made for this eventuality and include 1% contingency for judgemental trench use, should this prove necessary in the field.

4.4 A scale plan showing the proposed location of the trial trenches should be included in the WSI and the detailed trench design must be approved by SCCAS before fieldwork begins.

4.5 Metal detector searches must take place at all stages of the evaluation by a named, experienced metal detector user, including reference either to their contributions to the PAS database or to other published archaeological projects they have worked on. Metal detecting should be carried out before trenches are stripped, with trench bases and spoil scanned once trenches have been opened.

Arrangements for Archaeological Investigation

5.1 The composition of the archaeological contractor's staff must be detailed and agreed by SCCAS, including any subcontractors/specialists. Ceramic specialists, in particular, must have relevant experience from this region, including knowledge of local ceramic sequences.

5.2 All arrangements for the evaluation of the site, the timing of the work and access to the site, are to be defined and negotiated by the archaeological contractor with the commissioning body.

5.3 The project manager must also carry out a risk assessment and ensure that all potential risks are minimised, before commencing the fieldwork. The responsibility for identifying any constraints on fieldwork (e.g. designated status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites and other ecological considerations rests with the commissioning body and its archaeological contractor.

5.4 SCCAS officers are responsible for monitoring all archaeological work within Suffolk and will need to inspect site works at an appropriate time during the fieldwork and review the progress of reports and/or archive preparation.

5.5 The archaeological contractor must give SCCAS ten working days' notice of the commencement of ground works on the site. The contractor should update SCCAS on the nature of archaeological remains during the site works, particularly to arrange any visits by SCCAS that may be necessary. The method and form of development will also be monitored to ensure that it conforms to agreed locations and techniques in the WSI.

5.6 Any changes to the specifications that the project manager may wish to make after approval should be communicated directly to SCCAS for approval.

5.7 SCCAS should be kept regularly informed about developments both during the site works and subsequent post-excavation work.

5.8 Trenches will not be backfilled without the approval of SCCAS.

Reporting and Archival Requirements

6.1 The project manager must consult the Suffolk HER Officer to obtain a parish code for the work. This number will be unique for each project and must be used on site and for all documentation and archives relating to the project.

6.2 An archive of all records and finds is to be prepared and must be adequate to perform the function of a final archive for deposition in the Archaeological Service's Store or in a suitable museum in Suffolk.

6.3 It is expected that the landowner will deposit the full site archive, and transfer title to, the Archaeological Service or the designated Suffolk museum, and this should be agreed before the fieldwork commences. The intended depository should be stated in the WSI, for approval.

6.4 The project manager should consult the intended archive depository before the archive is prepared regarding the specific requirements for the archive deposition and curation (including the digital archive), and regarding any specific cost implications of deposition.

6.5 A report on the fieldwork and archive must be provided. Its conclusions must include a clear statement of the archaeological value of the results, and their significance. The results should be related to the relevant known archaeological information held in the Suffolk HER, and an HER search should be commissioned. In any instances where it is felt that an HER search is unnecessary, this must be discussed and agreed with the relevant Case Officer. **ANY REPORTS WHICH DO NOT INCLUDE AN UP TO DATE HER SEARCH WILL NOT BE APPROVED. ALL REPORTS MUST CLEARLY DISPLAY THE INVOICE NUMBER FOR THE HER SEARCH, OTHERWISE THEY WILL BE RETURNED.**

6.6 An opinion as to the necessity for further evaluation and its scope may be given, although the final decision lies with SCCAS. No further site work should be embarked upon until the evaluation results are assessed and the need for further work is established.

6.7 Following approval of the report by SCCAS, a single copy of the report should be presented to the Suffolk HER as well as a digital copy of the approved report.

6.8 All parts of the OASIS online form http://ads.ahds.ac.uk/project/oasis/ must be completed and a copy must be included in the final report and also with the site archive. A digital copy of the report should be uploaded to the OASIS website.

6.9 Where positive results are drawn from a project, a summary report must be prepared for the *Proceedings of the Suffolk Institute of Archaeology and History*.

6.10 **This brief remains valid for 12 months. If work is not carried out in full within that time this document will lapse; the brief may need to be revised and re-issued to take account of new discoveries, changes in policy and techniques.**

Standards and Guidance

Further detailed requirements are to be found in our Requirements for Trenched Archaeological Evaluation 2019 and in SCCAS Archive Guidelines 2019.

Standards, information and advice to supplement this brief are to be found in *Standards for Field Archaeology in the East of England*, East Anglian Archaeology Occasional Papers 14, 2003

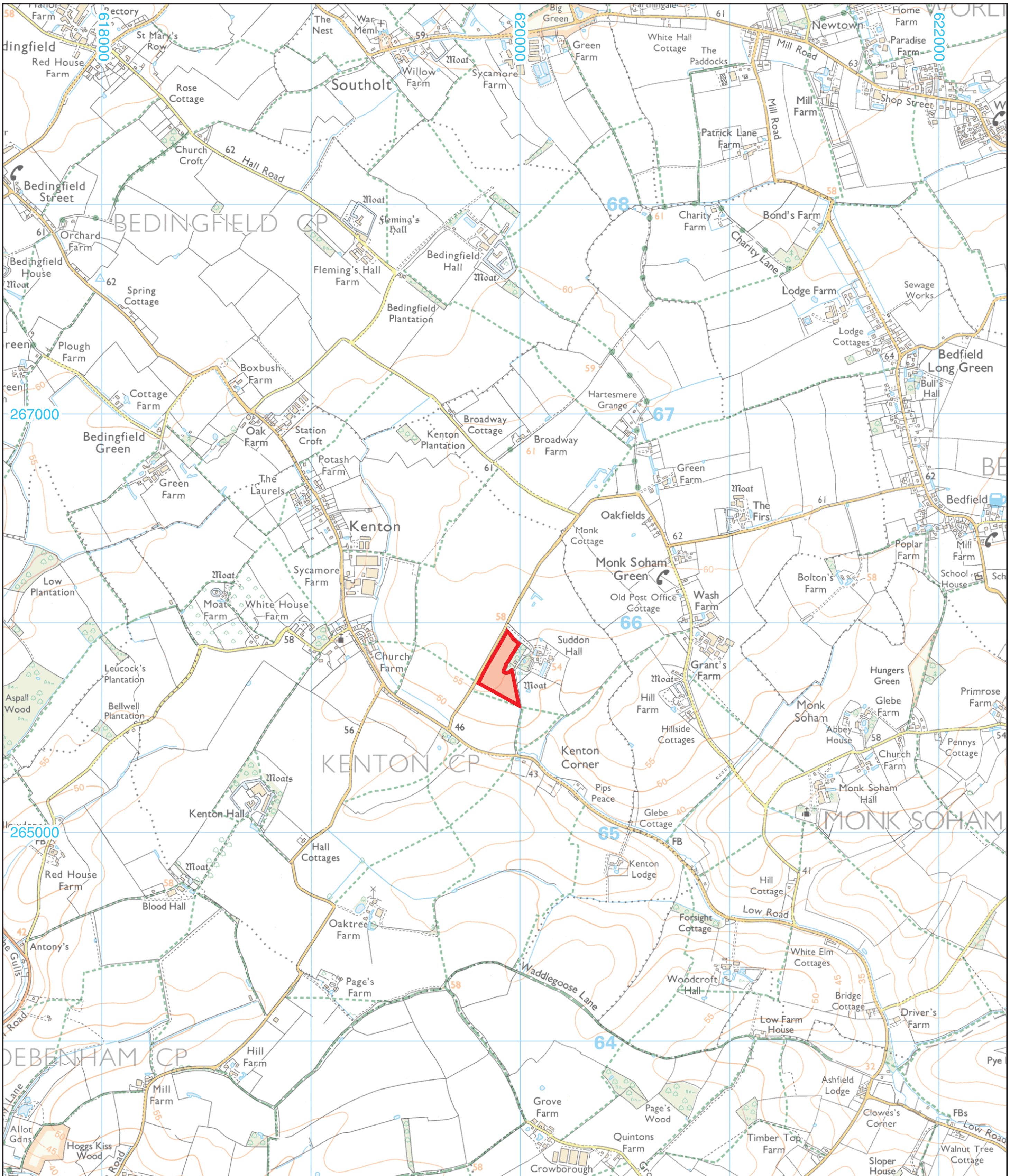
The Chartered Institute for Archaeologists' *Standard and Guidance for archaeological field evaluation* (revised 2014) should be used for additional guidance in the execution of the project and in drawing up the report

Notes

There are a number of archaeological contractors that regularly undertake work in the County and SCCAS will provide advice on request. SCCAS does not give advice on the costs of archaeological projects. The Chartered Institute for Archaeologists maintains a list of registered archaeological contractors (http://www.archaeologists.net or 0118 378 6446).

The Historic Environment Records Data available on the Heritage Gateway and Suffolk Heritage Explorer is **NOT** suitable to be used for planning purposes and will not be accepted in lieu of a full HER search.

Any reference to HER records in any WSI's or reports should be made using the Parish Code (XXX 000) and **NOT** the MSF0000 number.



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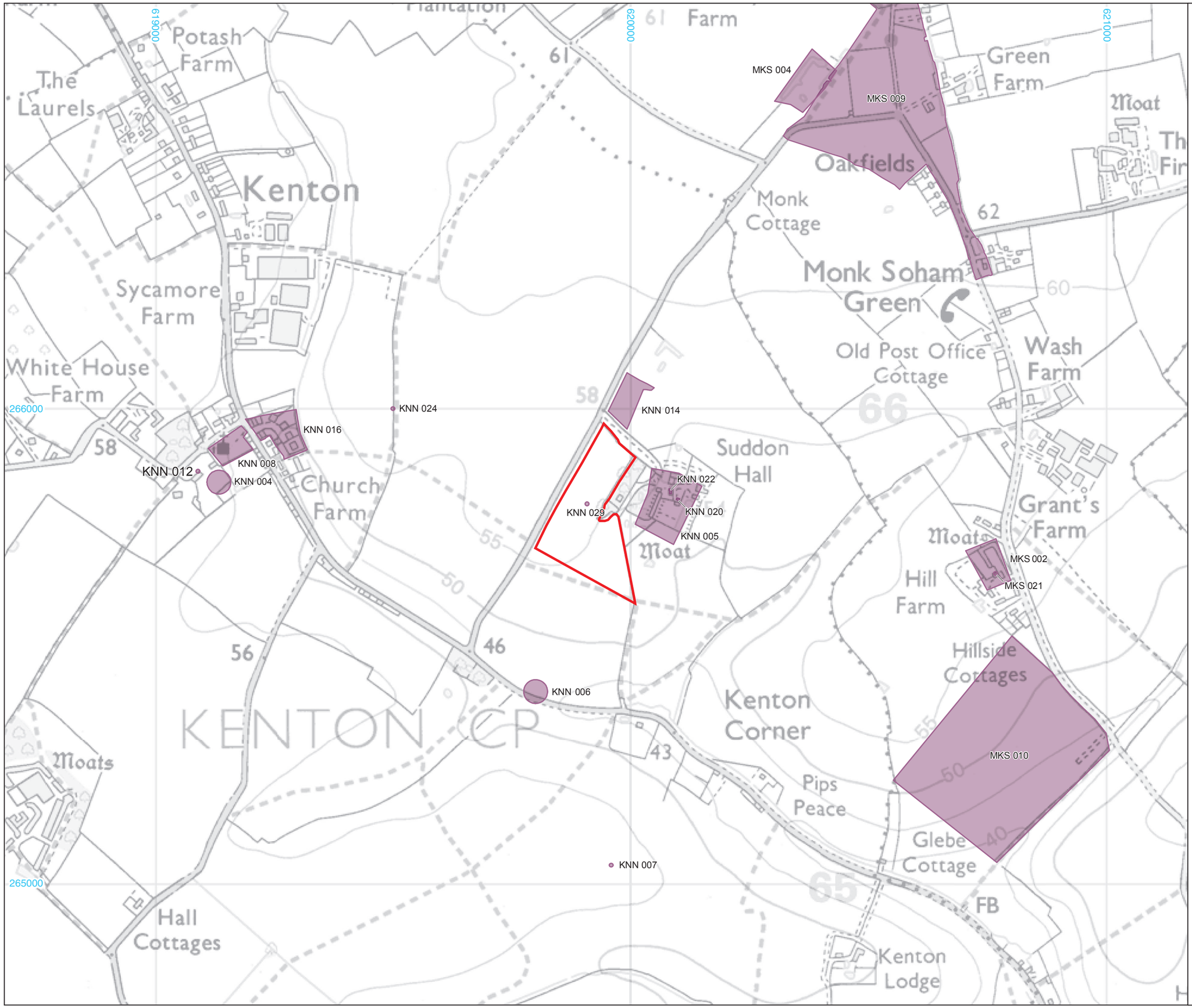
PROJECT TITLE

Land at Rose Hill Farm, Kenton, Suffolk

FIGURE TITLE

Site location plan

DRAWN BY	RW	*PROJECT NO.*	SU0094	*FIGURE NO.*
CHECKED BY	DJB	*DATE*	21/01/2020	
APPROVED BY	JAC	*SCALE@A4*	1:25,000	1



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PROJECT TITLE

Land at Rose Hill Farm, Kenton, Suffolk

FIGURE TITLE

Site, showing surrounding HER entires

DRAWN BY	**RW**	*PROJECT NO.*	**SU0094**	*FIGURE NO.*
CHECKED BY	**DJB**	*DATE*	**21/01/2020**	**2**
APPROVED BY	**JAC**	*SCALE@A3*	**1:7,500**	

Site outline

Evaluation trench

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PROJECT TITLE

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FIGURE TITLE

Trench location plan

DRAWN BY	**RW**	*PROJECT NO.*	**SU0094**	*FIGURE NO.*
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APPROVED BY	**JAC**	*SCALE@A4*	**1:2000**	

Trench 1, looking north-west (1m scales)

Trench 1 representative section, looking north-east (1m scales)

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PROJECT TITLE

Land at Rose Hill Farm, Kenton, Suffolk

FIGURE TITLE

Trench 1: photographs

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APPROVED BY	**JAC**	*SCALE@A4*	**NA**	

Trench 2, looking north-east (1m scales)

Trench 2 representative section, looking south-east (1m scales)

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PROJECT TITLE

Land at Rose Hill Farm, Kenton, Suffolk

FIGURE TITLE

Trench 2: photographs

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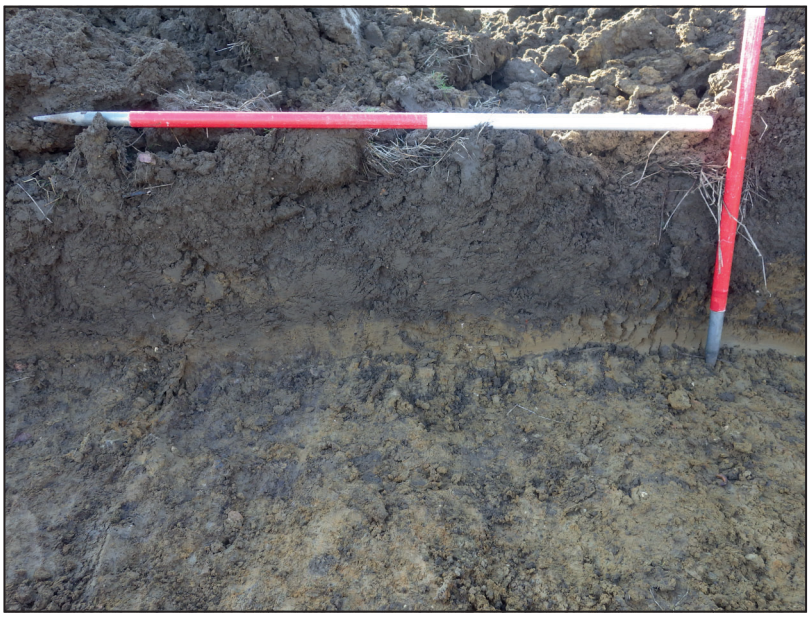
Trench 3, looking north-west (1m scales)



Trench 3 representative section, looking north-east (1m scales)

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PROJECT TITLE

Land at Rose Hill Farm, Kenton, Suffolk

FIGURE TITLE

Trench 3: photographs

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APPROVED BY	**JAC**	*SCALE@A4*	**NA**	

Trench 4, looking north-east (1m scales)

Trench 4 representative section, looking south-east (1m scales)

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PROJECT TITLE

Land at Rose Hill Farm, Kenton, Suffolk

FIGURE TITLE

Trench 4: photographs

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APPROVED BY	**JAC**	*SCALE@A4*	**NA**	

Trench 5, looking south-east (1m scales)

Trench 5 representative section, looking north-east (1m scales)

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PROJECT TITLE

Land at Rose Hill Farm, Kenton, Suffolk

FIGURE TITLE

Trench 5: photographs

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APPROVED BY	**JAC**	*SCALE@A4*	**NA**	

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