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ARCHAEOLOGICAL MONITORING REPORT

SCCAS REPORT No. 2009/230

Mulligan's Yard, Cowlinge COW 026

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HER Information

Planning Application No: SE/08/1082
Date of Fieldwork: 11th May to 5th August 2009
Grid Reference: TL 7230 5640
Funding Body: Mrs J Palmer
Curatorial Officer: Dr. Jess Tipper
Project Officer: Mo Muldowney
Oasis Reference: suffolkc1_65259

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Contents

Summary

	Page
1. Introduction	1
2. Geology and topography	1
3. Archaeological and historical background	1
4. Methodology	4
5. Results	6
6. Finds and environmental evidence	10
7. Discussion and Conclusion	15
8. Archive deposition	15
9. Contributors and acknowledgements	16
10. Bibliography	16
Disclaimer	16

List of Figures

1. Site location	2
2. Monitored route (red) and non-monitored route (green)	3
3. Plans and sections	8
4. Plans and sections	9

List of Tables

1. HER entries in proximity to Mulligan's Yard	4
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2. Finds quantities	10
3. Prehistoric fabric quantities by period	11
4. Prehistoric pottery by context	12
5. Flint descriptions	13
6. Plant macrofossils and other remains	13

List of Appendices

1. Brief and Specification
2. Context Summary
3. Plates

Summary

Archaeological monitoring was undertaken on land at Mulligan's Yard, Cowlinge during the development of an all-weather exercise track. The work identified a series of ditches located at distant and irregular intervals along the east-west stretch of the exercise track (on the highest ground), a pit, a burnt spread and a colluvial layer. The colluvium was observed predominantly along the west area of the exercise track route, in Poundhouse Plantation. A small quantity of pottery recovered from one of the ditches and the pit suggests that the archaeological remains were Iron Age.

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1. Introduction

Multiple stages of archaeological monitoring were carried out to the west and north of Mulligan's Yard, Cowlinge during groundworks ahead of a proposed all-weather exercise track around the perimeter of a stud farm (Planning Application no. SE/08/1082). The work was carried out over a number of non-consecutive days between 11th May and 5th August 2009 and undertaken in accordance with a Brief and Specification produced by Dr. Jess Tipper of Suffolk County Council Archaeological Service Conservation Team (SCCAS/CT).

Cowlinge is located approximately 12km to the north of Haverhill and the site itself is situated between Cowlinge and Lidgate, at Mulligan's Yard (Fig. 1).

2. Geology and topography

The development area is underlain by clay with chalk till and lies at 90m OD in the south-west corner rising to c.110m OD near the north-east corner on a south-west facing hillside. The land is largely set to grass and divided into paddocks, with the domestic and business premises located to the east of the development area. Poundhouse Plantation forms the west edge.

The development area itself is located around the paddocks at Mulligan's Yard (forming a circuit) (Fig. 2) and runs approximately north to south through Poundhouse Plantation.

3. Archaeological and historical background

Six Historic Environment Record (HER) entries (Table 1) are recorded in the immediate area surrounding Mulligan's Yard and are mostly located in the parish of Lidgate, immediately to the north of the development area. The small number of entries is perhaps a reflection of the rural nature of the area with small, scattered settlements and also the location of the development area itself, which lies on previously agricultural land, some distance from the historic core of the nearby villages. In addition, the lack of entries may be a reflection of the low number of archaeological interventions to have been carried out in the area rather than due to a paucity of archaeological remains.

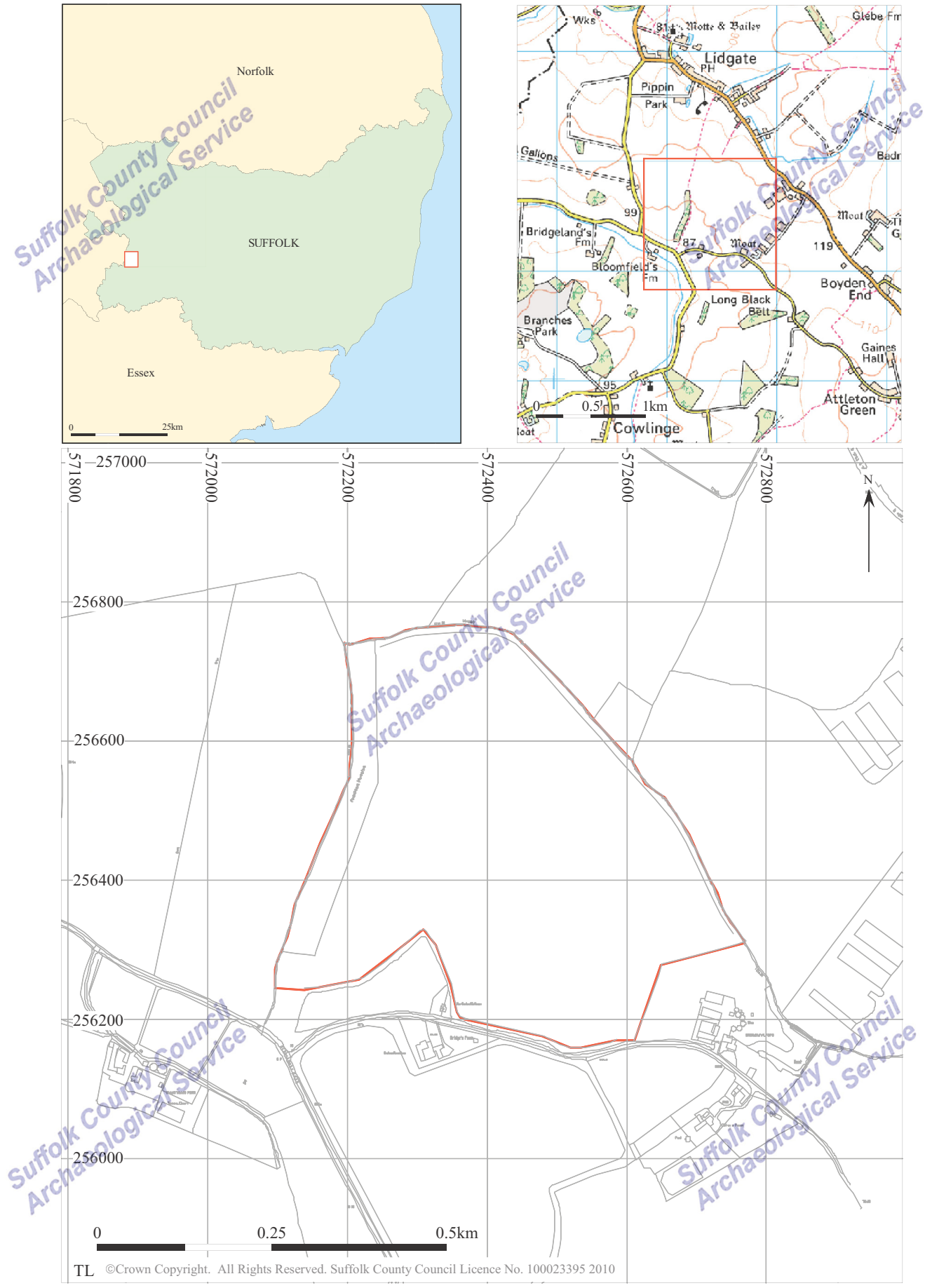


Figure 1. Site location

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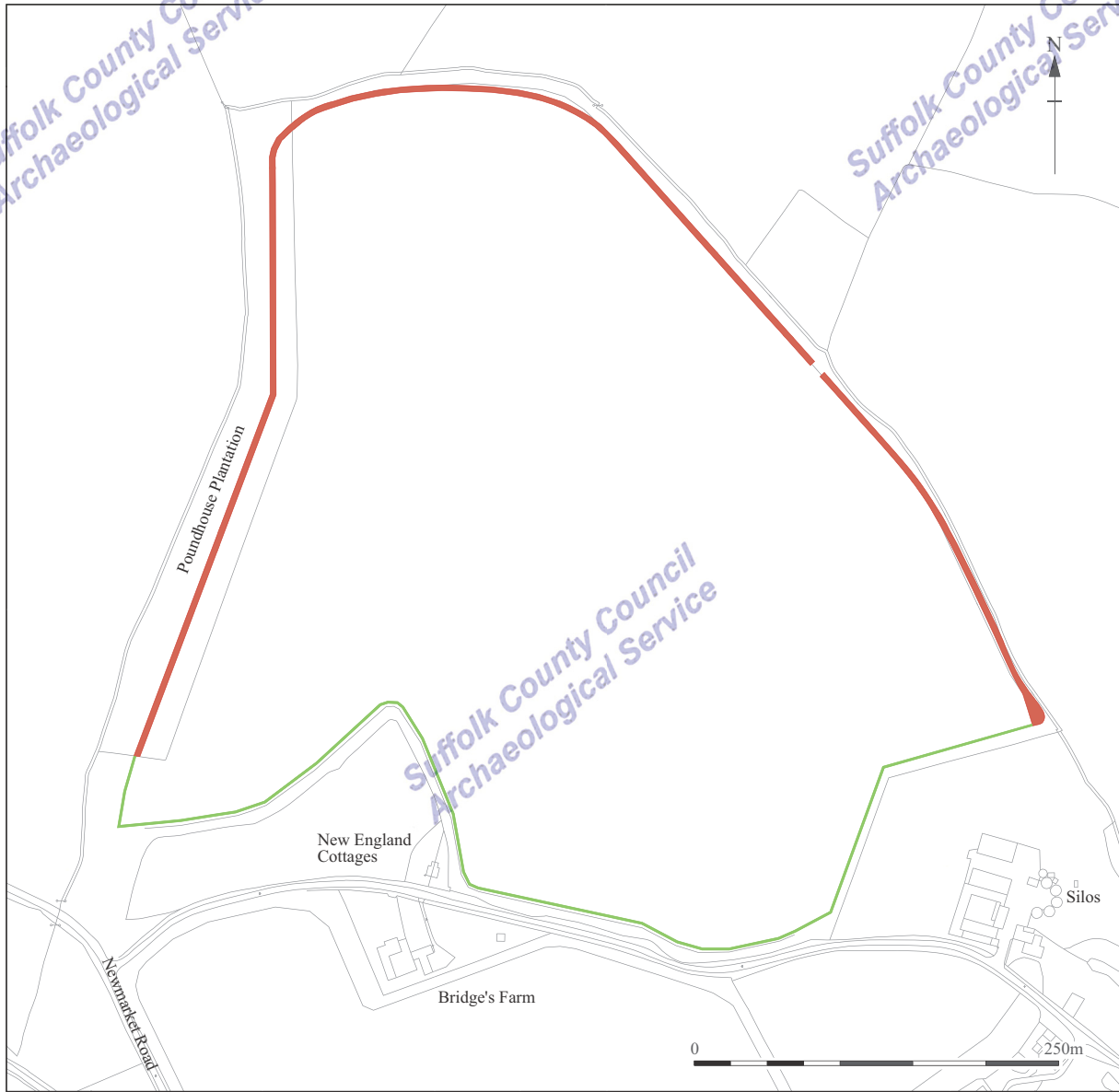


Figure 2. Monitored route (red) and non-monitored route (green)

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HER no.	Description	Distance from development area	Period
COW 008	Moat at Shardelows Farm	c.0.5km to the south-east	Med
LDG 001	Corridor-type villa with large outbuilding/barn within an enclosure. SAM 151	c.1km to the north-east	Rom
LDG 006	Circular soilmark, c.40m in diameter	c.1.2km to the west	Und
LDG 007	Thirty bronze coins and enamelled oval plate type brooch metal detecting find range in date from 1st/2nd C to 4th C	c.0.8km to the north-east	Rom
LDG 008	Unstated metal detected finds	c.1.1km to the north-east	Rom
LDG Misc	Hanoverian spoon found in a wall (in Lidgate itself)	c.1.1km to the north	P-med

Table 1. HER entries in proximity to Mulligan's Yard

Key: Und – undated. Rom – Roman. Med – Medieval. P-med – post-medieval

As far as can be ascertained no previous archaeological interventions have been undertaken in the immediate vicinity of Mulligan's Yard.

4. Methodology

According to information supplied with the Planning Application (SE/08/1082), the proposed development area measured 1.650km by 1.5m wide (0.25ha) and it was stated that no stripping would take place within the wooded area at the west edge of the development area (known as Poundhouse Plantation). As a result, the Conservation Team of SCCAS stipulated that a programme of archaeological monitoring would be sufficient to fulfil the requirement of the Brief and Specification (Appendix 1). This would entail the archaeological contractor monitoring the site over a period of four non-sequential days.

On arrival at the site, it was clear to the archaeological contractor that the information supplied with the Planning Application was incorrect and that the area being stripped was both longer and wider than stated and that excavation was in fact taking place within Poundhouse Plantation. After consultation with Dr. Jess Tipper and the contractor (P. Doyle) it was determined that the development area measured approximately 4.14km long and varied in width from 1.5m to 4m.

The 4m wide area started at the south end of Poundhouse Plantation, running northwards then turning east, following the boundary of the development area. At the east side of the development area, by the Muck Bunker, the area narrowed to 1.5m and continued to follow the edge of the development area to the south end of Poundhouse Plantation, thus forming a loop. The depth of the proposed works also varied: where the area was 4m wide excavation was to a depth of 0.45m with an additional 0.22/5m for

the instatement of a drainage channel, which was to run down the centre of the stripped area. Where the area was only 1.5m wide, the overburden was removed to a depth of 0.15m only.

Different strategies for monitoring were employed by the archaeological contractor depending on the observed depth of overburden (and therefore the level of the archaeological horizon) in different parts of the site. In Poundhouse Plantation for example, the archaeological horizon was over 0.2m deeper than the level of the proposed development and overlain by colluvium so only the excavation of the drainage channel was monitored. From the top of the Plantation to the Muck Bunker along the highest point of the site, the archaeological horizon was at either the maximum depth of excavations (0.7m) or above this and thus the entire area was stripped to natural and was constantly monitored by the attending archaeologist.

The area was stripped using a tracked mechanical excavator using a toothed ditching bucket for topsoil removal and a toothless ditching bucket for the remaining overburden down to the archaeological horizon. Excavation of the drain was undertaken using a Kubota type excavator fitted with a 1ft wide toothed bucket. Spoil was dumped by the side of the stripped area within the Plantation and removed by lorry elsewhere. Stripping in the Plantation and to the archaeological horizon elsewhere was constantly monitored by an experienced archaeologist.

Any identified features were hand-cleaned and excavated and a drawn record of all exposed deposits was created at a scale of 1:50 (plans) and 1:20 (sections). Plans were supplemented by a GPS survey of features and the outline of the development area.

A colour photographic record was taken using a high-resolution digital camera.

No metal detecting was undertaken. Three environmental samples were taken.

The site archive is stored in the SCCAS main store at Bury St Edmunds under HER no. COW 026 and a digital copy of the report has been submitted to the Archaeological Data Service at: <http://ads.ahds.ac.uk/catalogue/library/greylit>

5. Results

Four ditches, two pits and a burnt spread (Fig. 3 and Fig. 4) were identified in the north and north-east stretch of the development area, located between the north end of Poundhouse Plantation and the east end of the 4m wide monitored area. A post-medieval land drain was also identified. No archaeological deposits were identified in Poundhouse Plantation itself, where the archaeological horizon was more than 0.2m below the maximum depth of the development.

Natural 0004 was pale brownish yellow clay with abundant chalk. It was truncated or overlain by all features and layers (Appendix 3, Plate 1).

5.1 Archaeological features

Ditch 0006 (Fig 3) (Appendix 3, Plate 2) was located at the north end of Poundhouse Plantation and was aligned approximately east to west. It was 0.59m wide by 0.28m deep and had a slightly uneven u-shaped profile. The single fill (0005) was mid brownish yellow clay from which nine fragments of fired clay and a fragment of animal bone were recovered. Environmental sample 2 (0005) contained a very small number of charred cereal grains.

Ditch 0021 (Fig. 3) was located approximately 3m to the east of ditch 0006 and was aligned approximately north to south. It was 0.73m wide by 0.3m deep and had flat-based u-shaped profile. It contained single fill 0020 mid orange brown clay, from which no finds were recovered, although a very small, badly preserved fragment of fired clay very similar to that found in ditch 0006 was seen during excavation. The fragment was not recoverable.

Ditch 0019 (Fig. 3) (Appendix 3, Plate 3) was located 47m to the east of ditch 0021 and was aligned north to south. It was 0.52m wide by 0.13m deep and had an uneven, squared profile, with a concave base. The single fill 0018, mid greyish brown clay, contained no finds.

Ditch 0012 (Fig. 4) was located approximately 300m to the south-east of 0019 and was aligned east to west. It was 0.5m wide by 0.1m deep and had a shallow, u-shaped

profile. The single fill (0013) was mid greyish brown clay from which no finds were recovered.

Pit 0016 (Fig. 3) was located between ditch 0019 and ditch 0012 and was sub-rounded in plan. It was 1.2m long by 1m wide and 0.42m deep and had an irregular u-shaped profile. Two fills were identified, the lower of which, 0015, was 0.16m thick mid greyish orange clay and the upper fill, 0014, was 0.28m thick mid brownish grey clay. Pottery was recovered from both fills and two fragments of fired clay were recovered from 0014.

Pit 0025 (Fig. 4) was the southernmost feature to have been identified along the route, close to the south-east end of the 4m wide strip, and was sub-rectangular in plan. It lay partially beyond the south-west edge of the stripped area and was at least 0.9m long by 0.96m wide and 0.52m deep. Four fills were identified, the lowest of which was 0024, 0.09m thick mid brownish yellow clay, overlain by 0023, 0.03m thick mid yellowish grey clay. Above this was main fill 0026, mid yellowish grey clay that was indistinct from the colluvium (0003) which underlay the topsoil. Fill 0026 was 0.19m thick. The final fill was 0022, 0.24m thick dark yellowish grey clay from which three worked flints were recovered. No finds were recovered from the other fills.

Burnt spread 0017 (Fig. 3) overlay the west edge of ditch 0019. It was circular in plan and was no more than 0.5m wide by 0.03m thick. It was mid yellowish brown clay with abundant charcoal but no evidence of *in-situ* burning, such as reddened clay. Three sherds of Bronze Age pottery were recovered.

5.2 Miscellaneous features

Three additional features of non-archaeological origin were also identified and comprised two probable tree bowls and a post-medieval drainage ditch.

Tree bowl 0009 (Fig. 4) was located approximately 100m to the south-east of ditch 0012 and was sub-oval in plan. It was 1.35m long by 0.8m wide and 0.32m deep and had a u-shaped profile. Two fills were identified, the lower of which, 0008, was 0.09m thick mid orange brown silty clay overlain by 0007, dark blueish grey clay, 0.22m thick. No finds were recovered from either fill.

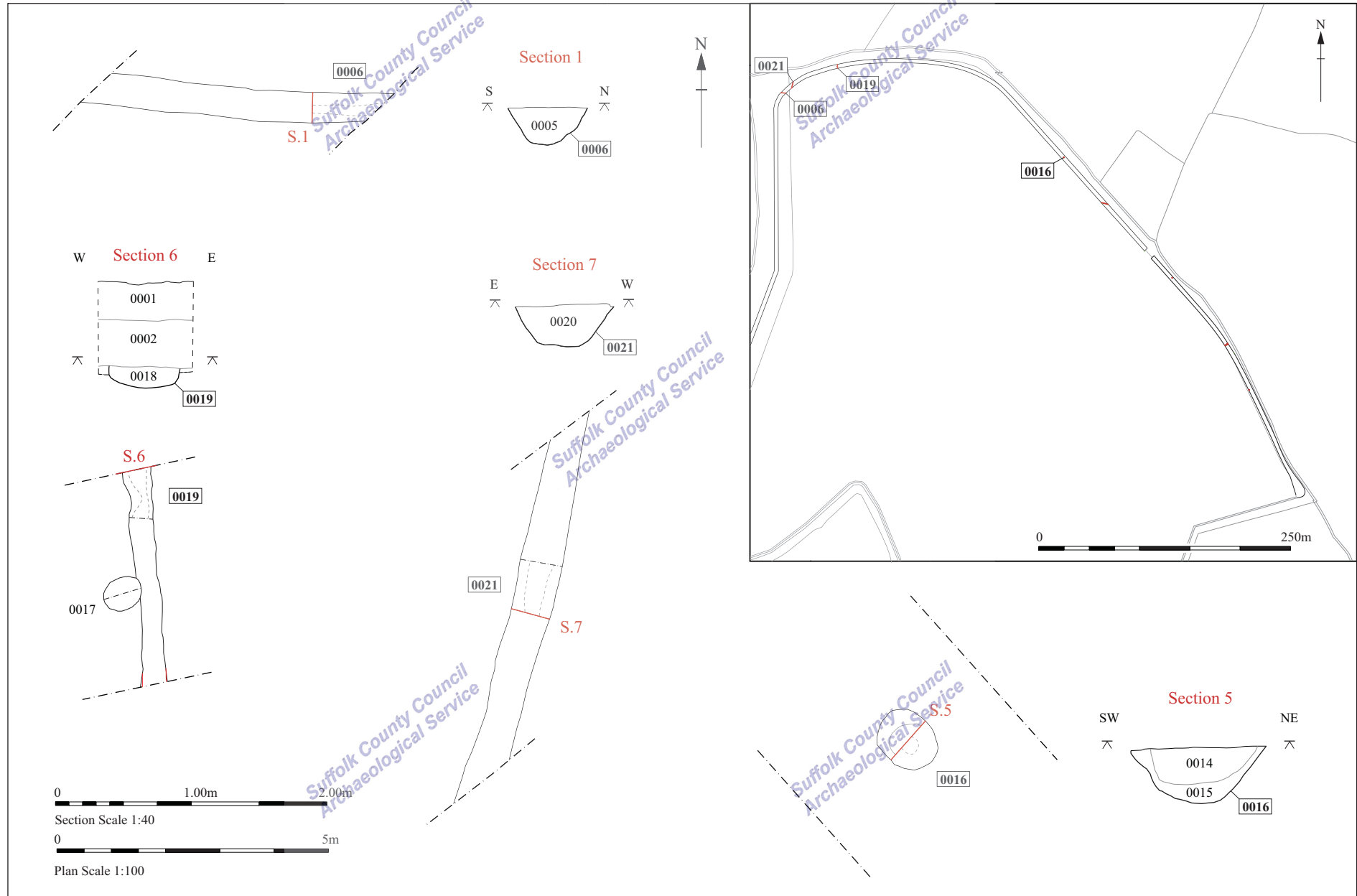


Figure 3. Plans and sections

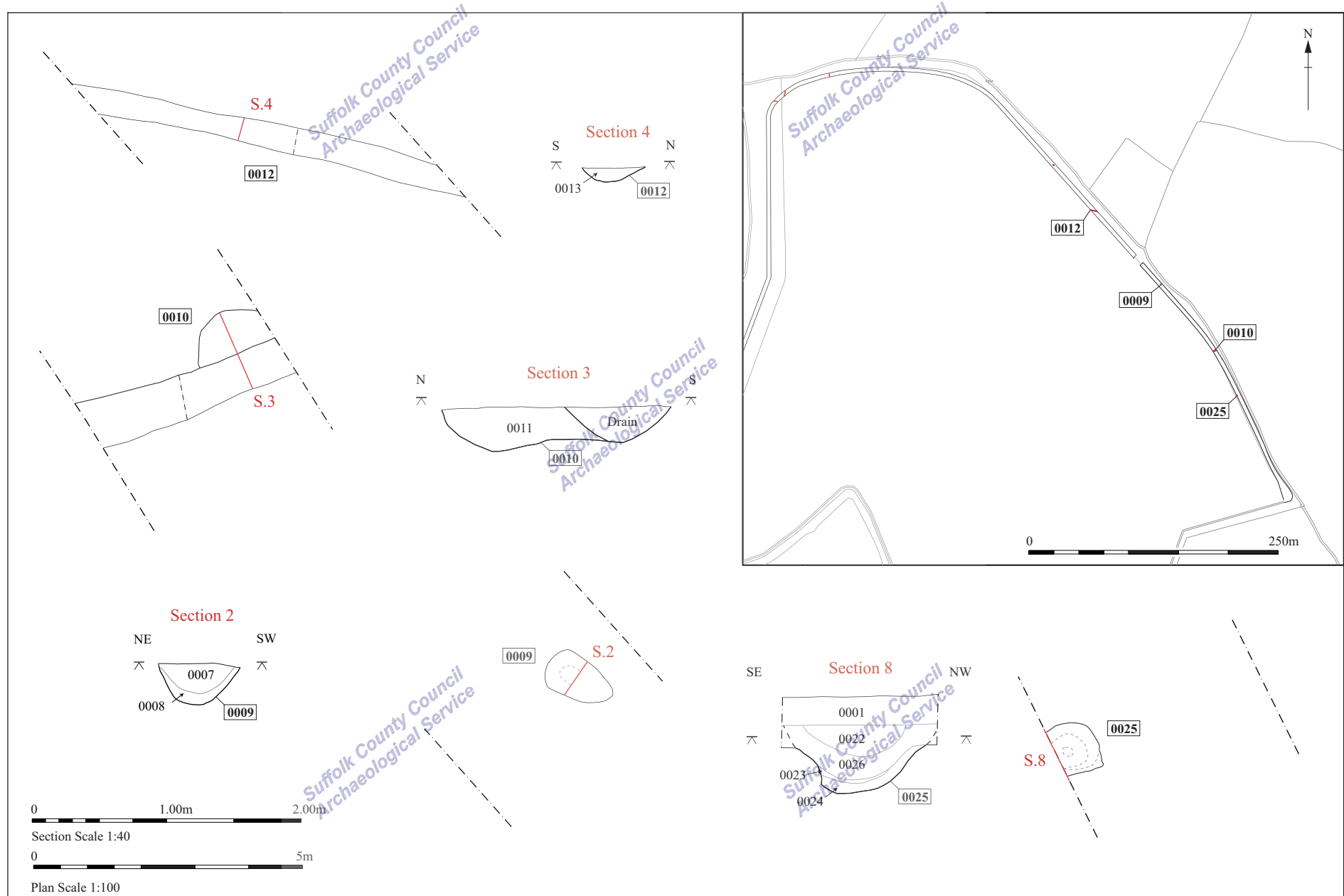


Figure 4. Plans and sections

Tree bowl 0010 (Fig. 4) was truncated by the post-medieval drain (not numbered) and was indistinct in plan. It was approximately 1.75m long by 0.32m deep with an uneven profile and contained single fill 0011, which was very similar to 0008 and the colluvium (0003).

Colluvium 0003 was mid orange brown clay and formed a continuous layer within the plantation and an inconsistent layer across the rest of the 4m wide strip, which became less thick towards the north-east corner of the development area. It also lay in irregular patches within the natural clay across the 4m wide stripped area, in some cases partially filling tree bowls. On average the colluvium was 0.21m thick where fully excavated; in the plantation it was more than 0.04m thick.

Subsoil 0002 was mid yellow brown clay and overlay the colluvium within the plantation only (Appendix 3, Plate 4). It was a maximum of 0.6m deep. A single fragment of copper alloy sheet (SF 1001) was recovered.

Topsoil 0001 was mid yellowish brown silty clay and was between 0.08m (in the north-east corner of the development area) and 0.29m deep. Two fragments of bone and a worked flint flake were recovered from this layer.

6. Finds and Environmental Evidence

Cathy Tester

6.1 Introduction

Finds were collected from seven contexts, as shown in Table 2 below.

Ctxt	Pottery		Animal bone		Flint		Fired clay		Miscellaneous	Spotdate
	No	Wt/g	No	Wt/g	No	Wt/g	No	Wt/g		
0001			1	26	1	16				
0002									Cu alloy 1-2g (SF1001)	
0005			1	1			9	27		
0014	19	110					2	2		Iron Age
0015	1	5								Iron Age
0017	3	10								Bronze Age
0022					3	3				
Total	23	125	2	27	4	19	11	29		

Table 2. Finds quantities

6.2 Prehistoric pottery

Introduction and methodology

Twenty-three sherds of prehistoric pottery weighing 125g were collected from three contexts in two features, a pit and a layer. Apart from a few sherds which are Bronze Age, the majority of the assemblage is Iron Age in date.

The sherds were examined using a x10 binocular microscope and fabric groups were defined on the basis of their main inclusions. Three broad fabric groups were identified, flint-tempered (F), grog-tempered (G) and quartz sand-tempered (QS). The fabrics are summarised by period in Table 3 and the details by context are shown in Table 4.

Fabric	Code	No	Wt./g	% Wt
Sand and grog	G1	3	10	8.0
<i>Total Bronze Age fabrics</i>		<i>3</i>	<i>10</i>	<i>8.0</i>
Coarse flint and sand	F1	3	18	14.4
Medium flint and sand	F2	4	54	43.2
Sandy	QS1	7	17	13.6
Sand and organic	QS2	6	26	20.8
<i>Total Iron Age fabrics</i>		<i>20</i>	<i>115</i>	<i>92.0</i>
Total		23	125	100.0

Table 3. Prehistoric fabric quantities by period

Bronze Age

Three abraded sherds of grog and sand-tempered pottery (G1) weighing 10g and probably all part of a single larger sherd were found in layer 0017. The sherds are Bronze Age but not closely datable.

Iron Age

Twenty sherds (115g) from pit 0016 are Iron Age in date. Nineteen are from the upper fill (0014) and one is from the lower fill (0015). Two flint-tempered fabrics were identified, both containing moderate to common angular flint pieces in a sandy clay matrix. Fabric F1 contains coarse flint up to 8mm and fabric F2 contains fine to medium flint (2-5mm). One F1 sherd is from a jar or bowl with an upright flaring rim and fingertip impressed decoration on its top (0014). The rest are undecorated bodysherds, probably Iron Age, but not closely datable.

Two quartz sand fabrics of probable later Iron Age date were identified. Fabric QS1 contains common rounded quartz sand. A simple rounded rim from a bowl or jar is present and the other fragments are undecorated bodysherds. Fabric QS2 is sandy with

moderate to numerous organic inclusions and is a fabric type also found within the later Iron Age assemblage from West Stow (West 1990, 60). No forms are identified as all were undiagnostic bodysherds.

Ctxt	Fabric	Sherd	No	Wt/g	Notes	Spotdate
0014	F1	r	2	15	Jar FTI on top of upright flaring rim. Red-brown surfs dark grey core. angular flint (up to 6mm) in a fine matrix	IA
	F1	b	1	3	Mixed size flint (up to 8mm) in a fine sandy matrix - dark grey core and interior, rusty orange ext.	IA
	F2	b	3	52	Thick jar sherd (12mm). possible scratched dec on ext.	IA
	F2	b	1	2	Fine flint dark brown throughout	Preh
	QS1	b	5	9	Black surface and core, surface smoothed or burnished. Thin, not all same vessel	IA
	QS1	r	1	3	Simple rounded rim. Black surface and core.	IA
	QS2	b	3	10	SV Red-brown ext surf (u) black core and inter surf.	
	QS2	b	3	16	All one sherd. Red-brown ext surf. and black core, dark brown interior surf (undec)	IA
	0015	QS1	b	1	5	Abraded. Dark brown surfs (smoothed?)
0017	G1	b	3	10	Very abraded. Orange-buff ext and dark grey core.	BA

Table 4. Prehistoric pottery by context

6.3 Fired clay

Eleven fragments of fired clay (29g) were collected from two contexts. Nine undiagnostic fragments from ditch 0006 (0005), all in a buff-orange medium sandy fabric containing abundant chalk include one piece with a flat surface. Two tiny abraded pieces in a fine and dense sandy red-orange fabric are from pit 0016 (0014).

6.4 Metalwork

A fragment of copper alloy sheet 30mm by 20mm of unknown date was recovered from the subsoil layer (0002) and recorded as a small find (SF 1001).

6.5 Worked flint

Colin Pendleton

Four pieces of worked flint were recovered from two contexts, one was unstratified (0001) and the other three were from a layer above pit 0025 (0022). The flint was recorded by type and other comments about appearance, condition and technology were noted. Descriptions by context are shown in Table 5.

All of the flint is heavily patinated and of probable Mesolithic or Neolithic date. The unpatinated retouch or damage on the flake from 0001 is later, possibly modern.

Ctxt	Type	No.	Description	Date
0001	flake	1	Heavily patinated snapped thick flake w parallel long flake scars on dorsal face. Black flint exposed at break. Unpat retouch or damage on edges	Meso or Neo
0022	flake/blade	1	Heavily patinated thin long flake or blade w small amount of cortex at distal end.	Meso or Neo
	flake/blade	1	Heavily patinated snapped thin long flake or blade w parallel blade scars on dorsal face	Meso or Neo
	flake	1	Heavily patinated very small thin flake	Meso or Neo

Table 5. Flint descriptions

6.6 Animal bone

Two fragments of animal bone (27g) were found in two contexts. The first is a cow tooth which was unstratified (0001) and the other, from ditch 0006 (0005), is too small to be identified.

6.7 Plant macrofossils and other remains

Val Fryer

Introduction and method statement

Samples for the retrieval of the plant macrofossil assemblages were taken from fills within pit 0016 (Sample 1), ditch 0006 (Sample 2) and pit fill 0022 (Sample 3). The samples were bulk floated by SCCAS staff and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x16 and the plant macrofossils and other remains noted are listed below in Table 6. Nomenclature within the table follows Stace (1997). All plant remains were charred. Modern fibrous and woody roots were abundant within all three assemblages.

Sample No.	1	2	3
Context No	0014	0005	0022
Feature No.	0016	0006	0025
Feature type	Pit	Ditch	Pit
<i>Hordeum</i> sp. (grain)		x	
<i>Triticum</i> sp. (grain)		x	
Cereal indet. (grain) frags.		x	
Small Poaceae indet		x	
Charcoal <2mm	xxxx	xx	xxxx
Charcoal >2mm	xx	x	xx
Charcoal >5mm			x
Indet.seed			x
Black porous 'cokey' material		x	
Sample volume (litres)	30	30	30
Volume of flot (litres)	<0.1	<0.1	<0.1
% flot sorted	100%	100%	100%

Table 6. Plant macrofossils and other remains

Key x = 1-10 specimens, xx = 11-50 specimens, xxxx = 100+ specimens

Results

With the exception of charcoal/charred wood fragments, which are common or abundant in all three assemblages, charred plant macrofossils are extremely scarce, with most occurring within Sample 2. The remains comprise single barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains, fragments of severely puffed and distorted indeterminate grains and a small grass (Poaceae) fruit. A single indeterminate seed is present within the assemblage from Sample 3. Other remains are also extremely rare, comprising a small number of fragments of black porous material from Sample 2, most of which are probably derived from the combustion of organic remains (including cereal grains) at very high temperatures.

Conclusions

In summary, all three assemblages are probably derived from small quantities of either scattered or wind-dispersed fire waste. As the assemblages are so small and sparse, it is assumed that the features/contexts from which the samples were taken were peripheral to any main focus of later prehistoric domestic/agricultural activity.

As none of the assemblages contain a sufficient density of material for quantification, no further analysis is recommended.

6.8 Finds and environmental discussion

The monitoring produced a very small group of finds in a narrow range of types which indicate limited activity on this site or in the vicinity during the prehistoric period.

The earliest are four worked flints of probable Mesolithic or Neolithic date.

A small prehistoric pottery assemblage includes a few Bronze Age sherds which are not closely datable from a layer or spread and Iron Age pottery from a pit. The Iron Age pottery includes flint-tempered and sand-tempered fabrics. None of the sherds are very diagnostic but sandy fabrics are highly characteristic of later Iron Age assemblages in East Anglia from around the 5th century BC onwards whilst flint tempered fabrics are present throughout the Iron Age but more prevalent during the earlier Iron Age (S Percival pers. comm.)

The plant macrofossil assemblages are small and sparse and not indicative of intense activity.

7. Discussion and Conclusion

The archaeological remains identified at Mulligan's Yard were largely widespread and comprised ditches and pits. A cluster of three of the ditches (0006, 0021 and 0019) and burnt spread 0017 at the north end of Poundhouse Plantation may suggest a focus of activity was situated nearby at the west edge of the hilltop. Further to the south-east more scattered remains (ditch 0012 and pits 0016 and 0025) indicate that activity was also taking place away from the potential focus, and although biased by the location of the excavated area, was likely to have been located predominantly on the highest ground.

Both the pottery sherds recovered from some of the features and the hilltop location of the remains indicate that the archaeological remains are likely to date to the Iron Age. The results of the environmental sampling suggest that these remains were nearby, or at the edge of a possible settlement and that the charred remains found are likely to have derived from there. The potential therefore that further Iron Age remains exist in this area is medium to high and any further work in this area should be subject to an archaeological condition (see Disclaimer, below).

Prehistoric remains have not previously been positively identified in this area, although the HER does record a circular soilmark over 1km away, which is likely to date to the Bronze Age. The presence of Iron Age remains at this location is not surprising however, given the character of the landscape around Cowlinge, which is dominated by frequent hills and valleys with far-reaching views. Iron Age remains are frequently found in this type of landscape in other parts of the country.

8. Archive deposition

Paper and photographic archive:

SCCAS Bury St Edmunds T:\Arc\ALL_site\Cowlinge\COW 026 Bloomfields Stud
Gallops

Finds and environmental archive:

SCCAS Bury St Edmunds. Bury Store in the Parish box on shelf: H / 80 / 1

9. Contributors and acknowledgements

The monitoring was carried out by a number of archaeological staff, (Andy Beverton, Tony Fisher, Simon Piccard and John Sims) all from Suffolk County Council Archaeological Service, Field Team.

The project was directed by Mo Muldowney and managed by Jo Caruth.

Finds processing was carried out by Rebekah Pressler and graphics were produced by Crane Begg. Anna West processed the environmental samples. Cathy Tester produced the specialist finds report and other specialist identification and advice was provided by Val Fryer and Colin Pendleton. The report was edited by Richenda Goffin.

10. Bibliography

Stace, C., 1997 *New Flora of the British Isles*. 2nd edition. Cambridge University Press

West, S., 1990 *West Stow, Suffolk: The Prehistoric and Romano-British Occupation*. East Anglian Archaeology 48

Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Team alone. Ultimately the need for further work will be determined by the Local Planning Authority and its Archaeological Advisors when a planning application is registered. Suffolk County Council's archaeological contracting services cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

Appendix 1. Brief and Specification

Brief and Specification for Archaeological Monitoring

MILLIGANS YARD, BLOOMFIELDS STUD, NEW ENGLAND LANE, COWLINGE, SUFFOLK

Although this document is fundamental to the work of the specialist archaeological contractor the developer should be aware that certain of its requirements are likely to impinge upon the working practices of a general building contractor and may have financial implications

1. Background

1.1 Planning permission for the construction of a new all weather exercise track around the perimeter of stud farm at Milligans Yard, Bloomfields, New England Lane, Cowlinge, Newmarket (TL 723 564), has been granted by St Edmundsbury Borough Council conditional upon an acceptable programme of archaeological work being carried out (SE/08/1082).

1.2 Assessment of the available archaeological evidence indicates that the area affected by development can be adequately recorded by archaeological monitoring (**Please contact the developer for an accurate plan of the development**).

1.3 This application lies in an area of archaeological importance, recorded in the County Historic Environment Record. There is high potential for encountering early occupation deposits at this valley location and there is an undated enclosure further to the west, in a similar landscape location. A medieval moated enclosure (COW 008) is recorded to the east of the application area. The proposed works would cause significant ground disturbance that has potential to damage any archaeological deposit that exists.

1.4 In accordance with the standards and guidance produced by the Institute of Field Archaeologists this brief should not be considered sufficient to enable the total execution of the project. A Written Scheme of Investigation (WSI) based upon this brief and the accompanying outline specification of minimum requirements, is an essential requirement. This must be submitted by the developers, or their agent, to the Conservation Team of the Archaeological Service of Suffolk County Council (Shire Hall, Bury St Edmunds IP33 2AR; telephone/fax: 01284 352443) for approval. The work must not commence until this office has approved both the archaeological contractor as suitable to undertake the work, and the WSI as satisfactory. The WSI will *provide the basis for measurable standards* and will be used to establish whether the requirements of the planning condition will be adequately met.

1.5 Before commencing work the project manager must carry out a risk assessment and liaise with the site owner, client and the Conservation Team of SCCAS (SCCAS/CT) in ensuring that all potential risks are minimised.

1.6 All arrangements for the excavation of the site, the timing of the work, access to the site, the definition of the precise area of landholding and area for proposed development are to be defined and negotiated by the archaeological contractor with the commissioning body.

1.7 The responsibility for identifying any constraints on field-work (e.g. Scheduled Monument status, Listed Building status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites &c., ecological considerations) rests with the commissioning body and its archaeological contractor. The existence and content of the archaeological brief does not over-ride such constraints or imply that the target area is freely available.

1.8 Detailed 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.

1.9 The Institute of Field Archaeologists' *Standard and Guidance for an archaeological watching brief* (revised 2001) should be used for additional guidance in the execution of the project and in drawing up the report.

2. Brief for Archaeological Monitoring

2.1 To provide a record of archaeological deposits which are damaged or removed by any development [including services and landscaping] permitted by the current planning consent.

2.2 The significant archaeologically damaging activity in this proposal is the ground works associated with the new all-weather exercise track, which measures c. 1,650m in length x 1.50m in width. The construction of the track will require topsoil stripping. Any ground works, and also the upcast soil, are to be closely monitored during and after stripping by the building contractor, and before the geotextile matting is laid. Adequate time is to be allowed for archaeological recording of archaeological deposits during excavation, and of soil sections following excavation. The western part of the track, close to the trees, will not cause any ground disturbance, but will be raised up from the existing ground surface; this section of the track will not require any monitoring.

3. Arrangements for Monitoring

3.1 To carry out the monitoring work the developer will appoint an archaeologist (the archaeological contractor) who must be approved by SCCAS/CT.

3.2 The developer or his contracted archaeologist will give SCCAS/CT five working days notice of the commencement of ground works on the site, in order that the work of the archaeological contractor may be monitored. The method and form of development will also be monitored to ensure that it conforms to previously agreed locations and techniques upon which this brief is based.

3.3 Allowance must be made to cover archaeological costs incurred in monitoring the development works by the contract archaeologist. The size of the contingency should be estimated by the approved archaeological contractor, based upon the outline works in this Brief and Specification and the building contractor's programme of works and time-table.

3.4 If unexpected remains are encountered SCCAS/CT must be informed immediately. Amendments to this specification may be made to ensure adequate provision for archaeological recording.

4. Specification

4.1 The developer shall afford access at all reasonable times to SCCAS/CT and the contracted archaeologist to allow archaeological monitoring of building and engineering operations which disturb the ground.

4.2 Opportunity must be given to the contracted archaeologist to hand excavate any discrete archaeological features which appear during earth moving operations, retrieve finds and make measured records as necessary. Where it is necessary to see archaeological detail one of the soil faces is to be trowelled clean.

4.3 All archaeological features exposed must be planned at a scale of 1:20 or 1:50 on a plan showing the proposed layout of the development, depending on the complexity of the data to be recorded. Sections should be drawn at 1:10 or 1:20 again depending on the complexity to be recorded.

4.4 A photographic record of the work is to be made of any archaeological features, consisting of both monochrome photographs and colour transparencies/high resolution digital images.

4.5 All contexts must be numbered and finds recorded by context. All levels should relate to Ordnance Datum.

4.6 Archaeological contexts should, where possible, be sampled for palaeoenvironmental remains. Best practice should allow for sampling of interpretable and datable archaeological deposits and provision should be made for this. Advice on the appropriateness of the proposed strategies will be sought from J. Heathcote, English Heritage Regional Adviser for Archaeological Science (East of England). A guide to sampling archaeological deposits (Murphy, P.L. and Wiltshire, P.E.J., 1994, *A guide to sampling archaeological deposits for environmental analysis*) is available for viewing from SCCAS.

4.7 All finds will be collected and processed (unless variations in this principle are agreed with SCCAS/CT during the course of the monitoring).

4.8 The data recording methods and conventions used must be consistent with, and approved by, the County Historic Environment Record.

5. Report Requirements

5.1 An archive of all records and finds is to be prepared consistent with the principles of *Management of Archaeological Projects (MAP2)*, particularly Appendix 3. This must be deposited with the County Historic Environment Record within three months of the completion of work. It will then become publicly accessible.

5.2 The project manager must consult the County Historic Environment Record Officer to obtain an event number for the work. This number will be unique for each project or site and must be clearly marked on any documentation relating to the work.

5.3 Finds must be appropriately conserved and stored in accordance with *UK Institute of Conservators Guidelines*.

5.4 The project manager should consult the SCC Archive Guidelines 2008 and also the County HER Officer regarding the requirements for the deposition of the archive (conservation, ordering, organisation, labelling, marking and storage) of excavated material and the archive.

5.5 The WSI should state proposals for the deposition of the digital archive relating to this project with the Archaeology Data Service (ADS), and allowance should be made for costs incurred to ensure proper deposition (<http://ads.ahds.ac.uk/project/policy.html>).

5.6 The finds, as an indissoluble part of the site archive, should be deposited with the County Historic Environment Record if the landowner can be persuaded to agree to this. If this is not possible for all or any part of the finds archive, then provision must be made for additional recording (e.g. photography, illustration, analysis) as appropriate.

5.7 A report on the fieldwork and archive, consistent with the principles of *MAP2*, particularly Appendix 4, must be provided. The report must summarise the methodology employed, the stratigraphic sequence, and give a period by period description of the contexts recorded, and an inventory of finds. The objective account of the archaeological evidence must be clearly distinguished from its interpretation. The Report must include a discussion and an assessment of the archaeological evidence, including palaeoenvironmental remains recovered from palaeosols and cut features. Its conclusions must include a clear statement of the archaeological value of the results, and their significance in the context of the Regional Research Framework (*East Anglian Archaeology*, Occasional Papers 3 & 8, 1997 and 2000).

5.8 An unbound copy of the assessment report, clearly marked DRAFT, must be presented to SCCAS/CT for approval within six months of the completion of fieldwork unless other arrangements are negotiated with the project sponsor and SCCAS/CT.

5.9 Following acceptance, two copies of the assessment report should be submitted to SCCAS/CT. A single hard copy should be presented to the County Historic Environment Record as well as a digital copy of the approved report.

5.10 A summary report, in the established format, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute of Archaeology*, must be prepared and included in the project report.

5.11 Where appropriate, a digital vector trench plan should be included with the report, which must be compatible with MapInfo GIS software, for integration in the County Historic Environment Record. AutoCAD files should be also exported and saved into a format that can be imported into MapInfo (for example, as a Drawing Interchange File or .dxf) or already transferred to .TAB files.

5.12 At the start of work (immediately before fieldwork commences) an OASIS online record (<http://ads.ahds.ac.uk/project/oasis/>) must be initiated and key fields completed on Details, Location and Creators forms.

5.13 All parts of the OASIS online form must be completed for submission to County Historic Environment Record. This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).

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This brief and specification remains valid for six months from the above date. If work is not carried out in full within that time this document will lapse; the authority should be notified and a revised brief and specification may be issued. If the work defined by this brief forms a part of a programme of archaeological work required by a Planning Condition, the results must be considered by the Conservation Team of the Archaeological Service of Suffolk County Council, who have the responsibility for advising the appropriate Planning Authority

Appendix 2. Context Summary

Context	Fill of	Filled by	Category	Type	Description			Length (m)	Width (m)	Depth (m)	Interpretation
0001			Layer	Topsoil	Mid yellowish brown	Friable	Silty clay			0.16	Topsoil. Across entire gallops area
0002			Layer	Subsoil	Mid yellow brown	Friable	Clay			0.6	Subsoil. In Plantation only
0003			Layer	Colluvium	Mid orange brown	Firm	Clay			0.4	Colluvial deposit underlying topsoil.
0004			Layer	Natural	Pale brownish yellow	Compact	Clay				Natural. Seen from top of Plantation across E-W stretch of strip and along to muck bunker. Has patches of colluvium in it
0005	0006		Fill	Ditch	Mid brownish yellow	Compact	Clay			0.28	Single fill of ditch 0006. IA? Not great amounts of humic but plenty of charcoal. Perhaps not in use for long or backfilled with upcast material. Very pale and indistinct in plan
0006		0005	Cut	Ditch	Linear	E-W	U-shaped		0.59	0.28	Ditch running along contour at top of the hill. Top end of plantation. Possible IA origin?
0007	0009		Fill	Pit	Dark blueish grey	Compact	Clay			0.22	Upper fill of possible pit. No finds, no charcoal.

Context	Fill of	Filled by	Category	Type	Description			Length (m)	Width (m)	Depth (m)	Interpretation
0008	0009		Fill	Pit	Mid orange brown	Compact	Silty clay			0.09	Lower fill of possible pit. Softer more moist. Absence of finds
0009		0007; 0008	Cut	Pit	Oval		Rounded v-shape. Sharp break from top, fairly steep sides, gentle break to base	1.6	0.75	0.32	Pit? Unknown function
0010			Cut	Natural							Variation in natural or depression/tree bowl filled with colluvium-like material
0011	0010		Fill	Natural							See 0008. Colluvial-like fill of 0010. Naturally derived, potential tree bowl?
0012		0013	Cut	Ditch	Linear	E-W	Concave sides, imperceptible break of slope		0.47	0.1	Shallow, narrow ditch. No finds
0013	0012		Fill	Ditch	Mid greyish brown	Compact	Clay			0.1	Single ditch fill, no finds
0014	0016		Fill	Pit	Mid brownish	Firm	Grey			0.28	Upper fill of pit. Charcoal-rich with good quantity of pot given density of archaeology and age of archaeology

Context	Fill of	Filled by	Category	Type	Description			Length (m)	Width (m)	Depth (m)	Interpretation	
0015	0016		Fill	Pit	Mid greyish orange	Compact	Clay			0.16	Lower fill. Probably a bit of backfill, no sign of slow infilling. Little organic stuff. Blended like clay does	
0016		0014; 0015	Cut	Pit	Sub-circular		U-shape. Sharp bos from surface, steep fairly even sides with gradual break to base		1	0.42	Pit. Only one present where stripped. High concentration of charcoal but no settlement in sight. Likely to be more stuff nearby	
0017			Layer	Spread	Mid yellowish brown	Friable	Clay	Flint: occasional, medium, angular Charcoal; abundant pot: 2/3 sherds	0.5	0.4	0.03	Sketch section only. Spread of burnt material containing pottery. Base of something? Or just burnt spread? Fire?
0018	0019		Fill	Gully	Mid greyish brown	Firm	Clay	Chalk: occasional, very small, rounded Charcoal: occasional, small, angular Flint: common, small to large, sub-rounded and angular Manganese: occasional, flecks			0.13	Single fill of shallow gully. Very uneven. Probably backfilled with colluvial-like material
0019		0018	Cut	Gully	Linear	N-S	Shallow u-shape with gradual breaks			0.52	0.13	Shallow gully. Deeper on S side of easement (0.17m). Possible little drainage channel
0020	0021		Fill	Ditch	Mid orange brown	Firm	Clay	Flint: occasional, small to large, angular and sub-angular			0.3	Single fill of ditch 0021. Slightly paler patch/lens just left of middle of section. 0.05 band. Backfilling. One sherd of pot

Context	Fill of	Filled by	Category	Type	Description			Length (m)	Width (m)	Depth (m)	Interpretation	
0021		0020	Cut	Ditch	Linear	N-S	Steep-sided, sharp break to sides and more gradual break to base		0.73	0.3	found but so smashed not recoverable - same as pot in 0005	
0022	0025		Layer	Buried soil	Dark yellowish grey	Compact	Clay	Charcoal: common, small to medium, angular Flint: occasional, small to medium, sub-rounded nodules Ironstone: v rare, small to medium, fragments		0.24	Upper fill of pit 0025. Top of cut very hard to see	
0023	0025		Fill	Pit	Mid yellowish grey	Compact	Clay	Chalk; occasional, small, rounded Charcoal: occasional, small, flecks		0.03	Waterlogged fill. Accumulated/formed prior to 0026 in-washing. Open in winter?	
0024	0025		Fill	Pit	Mid brownish yellow	Compact	Clay	Flint: occasional, small to medium, nodules sub-angular Charcoal: occasional flecks		0.09	Re-deposited upcast	
0025		0022; 0023; 0024; 0026;	Cut	Pit	Sub-rectangular		Uneven u-shape. Gradual break from top, slightly sharper W side. Steep (E) to v steep (W) side, both breaking	Flat with dip in middle	0.9	0.96	0.52	Pit - open a while before backfilling? Certainly open for 0023 to form. Dug c.75% of feature against baulk. Colluvial element may be a fill as a shade darker but very hard to distinguish at top of cut. No

Context	Fill of	Filled by	Category	Type	Description	Length (m)	Width (m)	Depth (m)	Interpretation
0026	0025		Fill	Pit	Mid yellowish grey Compact Clay	gradually to base		0.19	finds, although flint flakes from 0022 Mid and main fill of pit 0025. no clear distinction between this and 0003

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Appendix 3. Plates



Plate 1. The north-east stretch of the monitored area showing natural 0004, facing north-west



Plate 2. Ditch 0006 at the north end of Poundhouse Plantation, facing west



Plate 3. Pit 0016, facing north-west



Plate 4. Part of the monitored area in Poundhouse Plantation showing subsoil 0002, facing north-east