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PROPOSED WAREHOUSE EXTENSION AND RESEARCH & DEVELOPMENT BUILDING, 1-3 PINBUSH ROAD, LOWESTOFT, SUFFOLK

ARCHAEOLOGICAL MONITORING & RECORDING

HER Event No. ESF23289

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NGR: TM 527 895	Report No: 5030
District: Waveney	Site Code: GSE129
Approved: Claire Halpin MIfA Signed:	Project No: 5692
	Date: 13 May 2016 Revised: 17/02/2017

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CONTENTS

OASIS SUMMARY

Project details				
Project name	*Proposed Warehouse Extension and Research & Development Building, 1-3 Pinbush Road, Lowestoft, Suffolk*			
In November 2015 Archaeological Solutions Ltd (AS) carried out a programme of archaeological monitoring & recording at 1-3 Pinbush Road, Gisleham, Lowestoft, Suffolk. The project was undertaken to comply with a condition attached to planning consent for the commercial development of the site. *The area immediately to the north of the current site was subject to archaeological trial trenching and monitoring in 2006; one trench lay partially within the current development area and contained an intact buried prehistoric soil, associated artefacts and an Iron Age hearth (Good 2006). Further evaluation of the current site in 2014 revealed a buried prehistoric soil horizon cut by occupation features, including postholes and a ditch (Heard 2014; SHER GSE088). Excavations c. 125m to the south recorded a late Bronze Age/ early Iron Age enclosure, a roundhouse and contemporary activity (Heard 2010; SHER CAC035). Early Bronze Age artefacts of national significance were also encountered in this area.* *In the event, the monitoring of groundworks by AS encountered a buried soil (L1003), thought to correspond with the previously identified prehistoric horizon in the south-western corner of the site. Micromorphological analysis of L1003 confirmed the presence of two buried soils, each with associated subsoils and anthropogenic material. No archaeological features or finds were present.*				
Project dates (fieldwork)				
Previous work (Y/N/?)	*N*	Future work (Y/N/?)	*N*	
P. number	*5692*	Site code	*GSE129*	
Type of project	*Archaeological Monitoring & Recording*			
Site status	-			
Current land use	*Industrial/commercial*			
Planned development	*Construction of new workshop, office, and warehouse*			
Main features (+dates)	*Buried prehistoric soil horizons*			
Significant finds (+dates)	-			
Project location				
County/ District/ Parish	*Suffolk*	*Waveney*	*Gisleham*	
HER/ SMR for area	*Suffolk Historic Environment Record*			
Post code (if known)	-			
Area of site	*Approx. 0.21 ha*			
NGR	*TM 527 895*			
Height AOD (min/max)	*c. 15m*			
Project creators				
Brief issued by	*Suffolk County Council Historic Environment Service*			
Project supervisor/s (PO)	*Kamil Orzechowski*			
Funded by	*Harrod UK Limited*			
Full title	*Proposed Warehouse Extension and Research & Development Building, 1-3 Pinbush Road, Lowestoft, Suffolk: Archaeological Monitoring & Recording*			
Authors	Orzechowski, K.			
Report no.	*5030*			
Date (of report)	*13 May 2016 (Revised 17/02/2016)*			

PROPOSED WAREHOUSE EXTENSION AND RESEARCH & DEVELOPMENT BUILDING, 1-3 PINBUSH ROAD, GISLEHAM, LOWESTOFT, SUFFOLK

ARCHAEOLOGICAL MONITORING & RECORDING

SUMMARY

In November 2015 Archaeological Solutions Ltd (AS) carried out a programme of archaeological monitoring & recording at 1-3 Pinbush Road, Gisleham, Lowestoft, Suffolk. The project was undertaken to comply with a condition attached to planning consent for the commercial development of the site.

The area immediately to the north of the current site was subject to archaeological trial trenching and monitoring in 2006; one trench lay partially within the current development area and contained an intact buried prehistoric soil, associated artefacts and an Iron Age hearth (Good 2006). Further evaluation of the current site in 2014 revealed a buried prehistoric soil horizon cut by occupation features, including postholes and a ditch (Heard 2014; SHER GSE088). Excavations c. 125m to the south recorded a late Bronze Age/ early Iron Age enclosure, a roundhouse and contemporary activity (Heard 2010; SHER CAC035). Early Bronze Age artefacts of national significance were also encountered in this area.

In the event, the monitoring of groundworks by AS encountered a buried soil (L1003), thought to correspond with the previously identified prehistoric horizon in the south-western corner of the site. Micromorphological analysis of L1003 confirmed the presence of two buried soils, each with associated subsoils and anthropogenic material. No archaeological features or finds were present.

1 INTRODUCTION

1.1 In November 2015 Archaeological Solutions Ltd (AS) carried out a programme of archaeological monitoring & recording at 1-3 Pinbush Road, Gisleham, Lowestoft (NGR TM 527 895; Figs. 1-2). Suffolk. The project was undertaken to comply with a condition attached to planning consent for the commercial development of the site (Waveney District Council Planning Ref. DC/14/0162/FUL & DC/14/4049/FUL); it is proposed to construct a workshop, office and warehouse.

1.2 The project was carried out in accordance with a brief prepared by Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT; Matthew Brudenell, dated 27 February 2015), and a specification compiled by AS (dated 5 March 2015). The monitoring adhered to the procedures described in the Chartered Institute for Archaeologists' (CIfA) *Standard and Guidance for Watching Briefs* (2014) and Gurney's (2003) *Standards for Field Archaeology in the East of England*.

1.3 The project aimed to:

- ensure the archaeological excavation and monitoring of all aspects of the development programme likely to affect buried archaeological remains;

- secure the adequate recording of any archaeological remains revealed by the development programme;

- secure the full analysis and interpretation of the site archive and the appropriate publication of the project results, if required; and

- secure the analysis, long-term conservation and storage of the project archive.

Planning Policy Context

1.4 The National Planning Policy Framework (NPPF 2012) states that those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are heritage assets. The NPPF aims to deliver sustainable development by ensuring that policies and decisions that concern the historic environment recognise that heritage assets are a non-renewable resource, take account of the wider social, cultural, economic and environmental benefits of heritage conservation, and recognise that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. The NPPF requires applications to describe the significance of any heritage asset, including its setting that may be affected in proportion to the asset's importance and the potential impact of the proposal.

1.5 The NPPF aims to conserve England's heritage assets in a manner appropriate to their significance, with substantial harm to designated heritage assets (i.e. listed buildings, scheduled monuments) only permitted in exceptional circumstances when the public benefit of a proposal outweighs the conservation of the asset. The effect of proposals on non-designated heritage assets must be balanced against the scale of loss and significance of the asset, but non-designated heritage assets of demonstrably equivalent significance may be considered subject to the same policies as those that are designated. The NPPF states that opportunities to capture evidence from the historic environment, to record and advance the understanding of heritage assets and to make this publicly available is a requirement of development management. This opportunity should be taken in a manner proportionate to the significance of a heritage asset and to impact of the proposal, particularly where a heritage asset is to be lost.

2 DESCRIPTION OF THE SITE

2.1 The port town of Lowestoft is located on the North Sea coast, some 63km to the north-east of Ipswich – the county town of Suffolk – and *c.* 11km to the south of Great Yarmouth (Fig. 1). The current site is located on the southern edge of the town, at the southern end of Pinbush Road (Fig. 2). The site extends to some 0.21ha overall and is bounded to the south by Hadenham Road.

3 TOPOGRAPHY, GEOLOGY AND SOILS

3.1 The site is located on low lying ground at approximately 15m AOD. The area's solid geology comprises London Clay overlain by glaciofluvial sand and Lowestoft Till (British Geological Survey 1978). The site's soils are well drained sandy and coarse loamy soils with slowly permeable subsoils (Soil Survey of England and Wales 1983).

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 The site's environs have yielded abundant archaeological remains including evidence of national importance. At Pakefield, *c.* 1km to the east, flint tools and butchered animal bones dating back some 700,000 years have been recorded (Parfitt *et al.* 2006). At Bloodmoor Hill (Carlton Colville), to the west of the site, excavations revealed an early Anglo-Saxon settlement including sunken-featured buildings dating between the 6th and early 8th centuries AD, and a 7th century cemetery (Lucy *et al.* 2009; SHERs CAC003 and CAC016). In addition to the Anglo-Saxon settlement, the Bloodmoor Hill site contained multi-period remains, including ditches and pits spanning the late Iron Age to early Anglo-Saxon period (SHERs CAC003 and CAC013). Also present was a medieval road and a number of undated features, some of which may have been prehistoric.

4.2 A previous archaeological trial trench evaluation and monitoring by Suffolk County Council Archaeological Service (SCCAS) was carried out to the immediate north of the site in 2006. One trial trench (Trench 4) lay partially within the current development area and contained an intact buried prehistoric soil, associated artefacts and an Iron Age hearth (Good 2006; SHER CAC036). An evaluation of the current site in 2014 revealed a buried prehistoric soil horizon cut by occupation features, including postholes and a ditch (Heard 2014; SHER GSE088). Excavations c. 125m to the south recorded a late Bronze Age/ early Iron Age enclosure, a roundhouse and contemporary activity (Heard 2010; SHER CAC035). Early Bronze Age artefacts comprising a collared urn, flint knife and unique jet plaque of national significance were also found in this area (*ibid.*).

4.3 A polished flint axe head was found approximately 200m to the north of the site (SHER GSE006), while the line of a WWII tank trap and anti-tank cubes is located some 100m to the east (SHERs GSE045 and GSE046). Modern brick kilns, visible as earthworks are present *c.* 300m to the east (SHER GSE042).

5 METHODOLOGY

5.1 The brief required the recovery of a record of archaeological deposits that may be damaged or removed by any development (in particular new foundations and services). Overburden was removed under close archaeological supervision. The initial topsoil strip amounted to little more than site clearance. Thereafter, the excavation of foundation trenches was monitored.

5.2 Exposed sections were cleaned by hand and examined for archaeological features. Deposits were recorded using pro forma recording sheets, drawn to scale and photographed as appropriate. Excavated spoil was searched for archaeological finds.

5.3 A monolith sample for micromorphological analysis was taken from an encountered buried soil horizon (L1003) (see below).

6 DESCRIPTION OF RESULTS

6.1 Encountered deposits are detailed below:

Sample Section 1 *Pad 1, North facing* *0.00 = 15.05m AOD*		
0.00 – 0.37m	L1000	Made ground. Friable, pale yellow brown silty sand, with frequent medium and large sub-angular and sub-rounded stone and building rubble.
0.37 – 0.70m	L1001	Topsoil. Compact, dark grey brown sandy silt, with very occasional medium sub-rounded flints.
0.70 – 0.94m	L1002	Subsoil. Firm, dark orange brown sandy silt, with very occasional medium sub-rounded flint.
0.94 – 1.35m	L1003	Buried soil. Very firm, dark grey brown, mottled with mid yellow brown, sandy silt, with very occasional medium sub-rounded flints.
1.35 – 1.70m+	L1004	Natural deposits. Friable, pale-mid brown orange silty sand, with occasional small and medium sub-rounded flints.

Sample Section 2 *Pad 2, North facing* *0.00 = 15.11m AOD*		
0.00 – 0.23m	L1000	Made ground. As above.
0.23 – 0.52m	L1001	Topsoil. As above.
0.52 – 0.71m	L1002	Subsoil. As above.
0.71 – 1.10m+	L1003	Buried soil. As above.

Description: The same stratigraphy observed in Pads 1 and 2, was present in Pads 3 to 9. No archaeological features or finds were revealed.

A buried soil (L1003) was encountered below Subsoil L1002. A monolith sample was taken through this material in Pad 2 and submitted to QUEST (School of Archaeology, Geography and Environmental Science, University of Reading) for micromorphological analysis. This analysis tentatively concluded the presence to two buried soil horizons, each with underlying subsoils, and each some 10-13cm thick (Banerjea 2017; see Appendix 1). Anthropogenic materials, including charred wood, possible microdebitage, and an earthen material of unknown origin were identified. It is suggested that the lower soil horizon may correspond to a previously identified prehistoric soil, present *c*. 0.56 to 0.90m below the modern surface in the south-western corner of the site (*ibid.*); the two soil horizons may not have been previously distinguishable.

7 CONFIDENCE RATING

7.1 Within the parameters of monitoring during groundworks it is not felt that any factors inhibited the recognition of archaeological features or finds.

8 DEPOSIT MODEL

8.1 The existing ground surface (L1000) comprised a 0.23 to 0.37m thick layer of friable, pale yellow brown silty sand, with frequent medium and large sub-angular and sub-rounded stone and building rubble. This overlay a buried topsoil layer (L1001) of compact, dark grey brown sandy silt, with very occasional medium sub-rounded flints (0.29 to 0.33m thick). Below this was a 0.19m to 0.24m thick subsoil layer (L1002) of firm, dark orange brown sandy silt, with very occasional medium sub-rounded flint. This overly a 0.41m thick buried soil layer (L1003) of very firm, dark grey brown, mottled with mid yellow brown, sandy silt, with very occasional medium sub-rounded flints. The natural deposits (L1004) comprised friable, pale-mid brown orange silty sand with occasional small and medium sub-rounded flints, and were encountered at a depth of 1.35m below the current ground surface.

9 DISCUSSION

9.1 Trial trenching of the site by SCCAS in 2006 and 2014 revealed an intact prehistoric buried soil horizon cut by occupation features, including postholes and a ditch. A significant late Bronze Age/ Iron Age settlement and early Bronze Age artefacts of national significance were also found *c.* 125m to the south (Heard 2010; SHER CAC035).

9.2 The monitoring of groundworks by AS encountered a buried soil (L1003), thought to correspond with the previously identified prehistoric horizon in the south-western corner of the site (see above). Micromorphological analysis of L1003 by QUEST (see Appendix 1) confirmed the presence of two buried soils, each with associated subsoils and anthropogenic material (including possible microdebitage). The presence of these soils adds usefully to our current understanding of the character and extent of the local prehistoric landscape, including the significant local settlement evidence.

10 DEPOSITION OF THE ARCHIVE

10.1 The requirements for archive storage will be agreed with the Suffolk Historic Environment Record. The archive will be deposited within three months of the conclusion of fieldwork.

ACKNOWLEDGEMENTS

Archaeological Solutions Ltd (AS) would like to thank the client, Harrod UK Ltd for funding the project, and PJ Spillings (Builders) Ltd for their assistance.

AS would also like to acknowledge the input and advice of the Suffolk County Council Archaeological Service Conservation Team.

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APPENDIX 1 MICROMORPHOLOGY REPORT

QUEST
QUATERNARY SCIENTIFIC

University of Reading

PINBUSH ROAD, LOWESTOFT, SUFFOLK, UK

Micromorphology Report

Site Code: GSE129

Date: 13th January 2017

Written by: Dr Rowena Banerjea

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1. INTRODUCTION

This report summarises the findings arising out of the micromorphological analysis undertaken by Quaternary Scientific (QUEST), University of Reading in connection with Archaeological Solutions. The site at 1, Pinbush Road, Lowestoft has been subject to previous excavations in 2006 and 2014. During the 2006 excavation, an intact buried prehistoric soil with artefacts, and an Iron Age hearth. A buried prehistoric soil horizon cut by occupation features, including post holes and a ditch was revealed in 2014. Archaeological excavations on the opposite side of the road have revealed further evidence of this including an Early Iron Age enclosure and Early Bronze Age artefacts of national significance. Monitoring in November 2015 revealed no archaeological features or finds. A buried soil, probably corresponding to the previously revealed prehistoric horizon, was present but contained no finds. A monolith sample of this horizon (Fig. 1) was taken for micromophological analysis as requested in the brief, to clarify if L1003 (Pad 2) corresponds with the possible prehistoric buried soil horizon previously identified c.0.56 – 0.9m below the surface in the south-western corner of the site.

2. METHODS

Four thin-sections, 11.5 x 7.5 cm, were prepared from Sample 1 (Fig. 1). The procedure followed is the University of Reading standard protocol for thin section preparation. The samples were oven-dried to remove all moisture and then impregnated with epoxy resin while under vacuum. The impregnated samples are then left overnight so that the resin can enter all of the pores. The samples are then placed in an oven to dry for 18 hours at 70˚C before they are clamped and cut to create a 1cm slice through the sample. The surface of the 1cm slice is flattened and polished by grinding on the Brot. The prepared surface of the 1cm slice is then mounted onto a frosted slide and left to cure. This is followed by cutting off the excess sample, so the sample is down to a thickness of 1-2 mm. The mounted sample is ground down to approximately 100 µm in thickness using the BROT. The 100 µm section was lapped on a Logitech LP30 precision lapping machine to the standard geological thickness of 30 µm.

Micromorphological investigation was carried out using a Leica DMLP polarising microscope at magnifications of x40 - x400 under Plane Polarised Light (PPL), Crossed Polarised Light (XPL), and where appropriate Oblique Incident Light (OIL). Thin-section description was conducted using the identification and quantification criteria set out by Bullock *et al* (1985) and Stoops (2003), with

reference to Courty *et al* (1989) for the related distribution and microstructure, Mackenzie & Adams (1994) and Mackenzie & Guilford (1980) for rock and mineral identification, and Fitzpatrick (1993) for further identification of features such as clay coatings. Tables of results use the descriptions, inclusions and interpretations format used by Matthews (2000) and Simpson (1998). Photomicrographs were taken using a Leica camera attached to the Leica DMLP microscope.

Micromorphology enables the following properties to be examined at magnifications of x40 - x400 under PPL, XPL and OIL: thickness, bedding, particle size, sorting, coarse:fine ratio, composition of the fine material, groundmass, colour, related distribution, microstructure, orientation and distribution of inclusions, the shape of inclusions, and finally the inclusions to be identified and quantified. In addition, post-depositional alterations can be identified and quantified such as: effects on the microstructure by mesofaunal bioturbation and cracking due to shrink-swell of clays or trampling; translocation of clays and iron; chemical alteration such as the neoformation of minerals such as vivianite and manganese; organic staining as a result of decayed plant material; and excremental pedofeatures such as insect casts and earthworm granules.

3. RESULTS AND INTERPRETATION OF THE MICROMORPHOLOGICAL ANALYSIS

Micromorphology descriptions for each deposit are recorded in Table 1, the frequency and types of inclusions within these deposits are recorded in Table 2, and the abundance of post-depositional alterations and pedofeatures within the deposits is recorded in Table 3. To determine the deposit type classification, each deposit was grouped using the following diagnostic sedimentary attributes and inclusions which provide crucial information concerning the origin of inclusions, transportation mechanisms of particles and the deposition processes. To ascertain the origin of sediment components descriptions were made of particle size, shape, and the composition of the coarse and fine fraction, particularly the frequency of rock, minerals and anthropogenic inclusions (Table 2). The depositional events are characterised by the following sedimentary attributes: sorting, related distribution, orientation and distribution of the inclusions (Table 1), and bedding structure (Table 2).

Understanding the formation processes for deposits is crucial to interpreting the depositional pathways of rock fragments and minerals, any anthropogenic debris such as charred wood and artefacts, and other types of plant remains and microfossils (Matthews 2010; Schiffer 1987). Analysis of post-depositional features provides crucial information concerning the effects of weathering, preservation conditions (Bisdom *et al* 1982; Brady & Weil 2002; Breuning-Madsen *et al* 2003; Canti 1999; Courty *et al* 1989) and stratigraphic integrity of the deposit (Canti 2003; Canti 2007; Courty *et al* 1989; Macphail 1994).

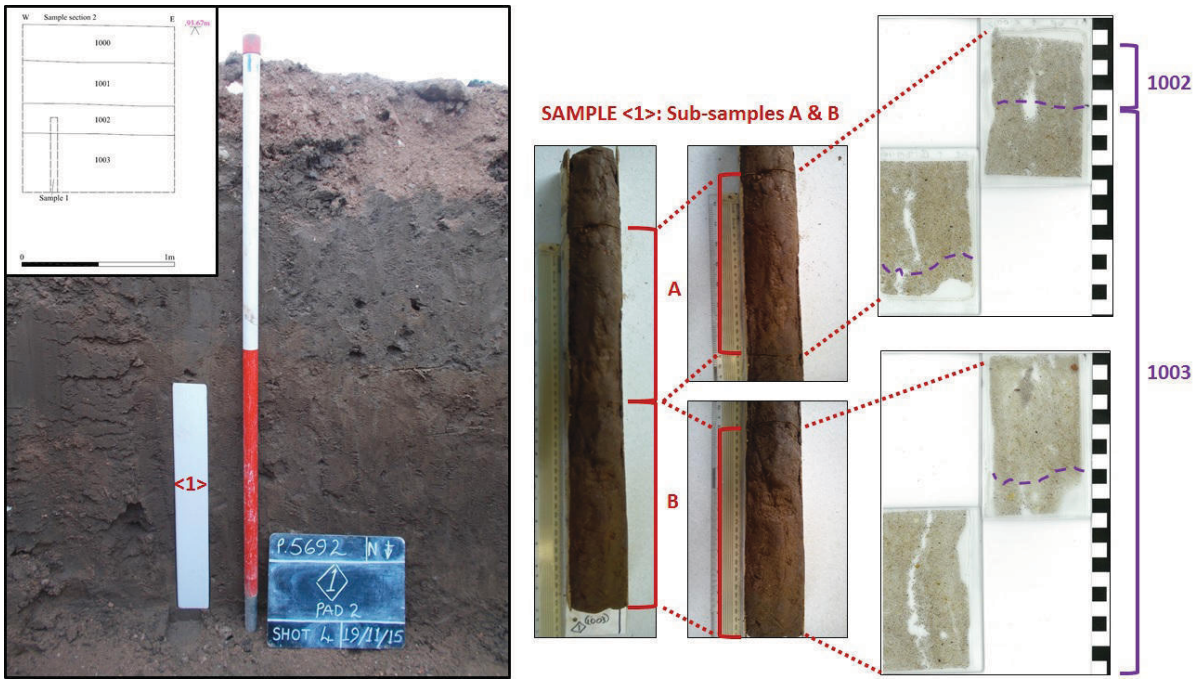

Figure 1: Location of sample 1 in the profile (left), sub-samples A and B (centre), and the corresponding thin-sections, microstratigraphic units (MU i is the upper unit, and MU iv is at the base of the sequence) and contexts (right), Pinbush Lane, Lowestoft, Suffolk.

Formation processes of stratigraphic units 1002 and 1003

Micromorphology has identified four microstratigraphic units, MU hereafter (i-iv) within sample 1 (Fig.1), with MU i being the upper unit, and MU iv at the base of the sequence. The results of the micromorphology tentatively represent two buried soil horizons, MU i and iii, with underlying sub-soils, MU ii and iv (Tables 1-3). The microstratigraphic units are very similar in all sediment attributes with variations in colour between the buried soil and sub-soil horizons (Table 1); the buried soil horizons (MU i and iii) are slightly darker in colour (dark or mid brown in PPL) than the orange brown (PPL) sub-soil horizons (MU ii and iv). The boundaries are wavy and diffuse as a result of biological reworking. All units show evidence of bioturbation such as channels and chambers in the microstructure (Table 1), and fragments of calcite (Table 2) that may derive from fragmented earthworm granules, but the evidence for bioturbation is most abundant in the lowest unit (Table 3), MU iv, a sub-soil horizon. The range and abundances of geological inclusions show little variability throughout the profile, comprising flint rock fragments, and mainly quartz minerals (30-50%), with some feldspars, and muscovite (Table 1).

Anthropogenic inclusions

MU ii and MU iii both contain <5% angular shaped flint fragments, <1mm, that may be pieces of microdebitage (Fladmark 1982; Macphail and Goldberg 2010). MU iii also contains fragments of charred wood, <5%, that are ferruginous, and fragments of highly fired, almost vitrified earthen material, which could be brick or tile that has been reworked into the unit from further up the profile, or a fragment of pottery, burnt daub, or oven wall (Table 2).

Post-depositional alterations

Both impregnative and depletion redoximorphic pedofeatures occur in all units, evident by the stippled speckled and dotted b-fabrics arising from iron and manganese nodules, and silty clay/clay coatings that are also frequently impregnated with Fe (Tables 1 and 3). These features can result from long periods of saturation, and Fe and manganese nodule formation occurs over multiple wet/dry cycles or fluctuations in the water table (Bartlett 1988; Lindbo *et* al 2010). The translocation of clay and silty clay particles is influenced by factors related to water flow, chemical conditions and energy and gravity. Movement can occur under any kind of climate, although temperate environments provide the best evidence (Courty *et a*/1989). Silty clay coatings are not fragmented, which indicates that they were not transported with the sediment, and some are microlaminated indicating successive phases of illuviation (Fedoroff *et a*/2010).

Bioturbation, is evident in all units by channels and chambers in the microstructure (Table 1). There are fragments of calcite in MU iii and MU iv (Table 2) that may derive from fragmented earthworm granules, but the evidence for bioturbation is most abundant in the lowest unit (Table 3),

4. DISCUSSION AND CONCLUSIONS

The monolith sample (Fig. 1) was taken for micromophological analysis as requested in the brief, to clarify if L1003 (Pad 2) corresponds with the possible prehistoric buried soil horizon previously identified c.0.56 – 0.9m below the surface in the south-western corner of the site. Micromorphology tentatively shows that there could be two buried soil horizons, MU i and MU iii, each with underlying more orange sub-soils, MU ii and MU iv, which are 10-13cm in thickness. MU ii and iii contain the greatest amount of anthropogenic materials, with possible fragments of microdebitage, charred wood and an unidentifiable highly burnt earthen material of unknown origin.

It is possible that the lower soil horizon, MU iii, corresponds with the potential prehistoric buried soil horizon previously identified in the south-western corner of the site, and that that the two soil horizons may not have been previously distinguishable.

Table 1: Description of sediment attributes for microstratigraphic units, Pinbush Lane, Lowestoft, Suffolk

Field context number	Field description	Sample	Deposit type	Microstrat Unit number	Basal Boundary	Particle size	Sorting	Fine material	Groundmass	Colour	Related distibution	Microstructure	Inclusions: Orientation and Distribution
1002	Subsoil. Firm, dark orange brown sandy silt, with very occasional medium sub-rounded flint.	A1	Buried soil	i	Wavy, diffuse, pedological	Loamy sand	Unsorted	Mineral	Dotted, Speckled b-fabric. Grano and poro-striated	PPL: dark brown, orange brown. XPL: orange brown, dark orange brown	Linked and coated, and embedded	Chambers 5% Spongey	Unoriented, unrelated. Random and unreferred
1003	?Buried soil. Very firm, dark grey brown, mottled with mid yellow brown,		Sub-soil	ii	N/A	Loamy sand	Unsorted	Mineral	Dotted b-fabric. Grano and poro-striated	PPL: orange brown. XPL: orange brown/orange	Embedded and coated	Chambers 5% Spongey	Unoriented, unrelated. Random and unreferred
		A2			Wavy, diffuse, pedological	Loamy sand	Unsorted	Mineral	Dotted, Speckled b-fabric. Grano and poro-striated	PPL: orange brown. XPL: orange brown/orange	Embedded and coated	Chambers 5% Channels 10% Spongey	Unoriented, unrelated. Random and unreferred

	sandy silt, with very occasional medium sub-rounded flints.		Buried soil	iii	N/A	Loamy sand	Unsorted	Mineral	Dotted, Speckled b-fabric. Grano and poro-striated	PPL: mid brown, orange brown. XPL: orange brown/orange	Embedded and coated	Chambers 5% Channels 5% Spongey	Unoriented, unrelated. Random and unreferred
		B1			Wavy, diffuse, pedological	Loamy sand	Unsorted	Mineral	Dotted, Speckled b-fabric. Grano and poro-striated	PPL: mid brown, orange brown. XPL: orange brown/orange	Embedded and coated	Chambers 5% Channels 5% Spongey	Unoriented, unrelated. Random and unreferred
			Sub-soil	iv	N/A	Loamy sand	Unsorted	Mineral	Dotted, Speckled b-fabric. Grano and poro-striated	PPL: orange brown. XPL: orange brown	Linked and coated, and embedded	Chambers 5% Channels 20% Spongey	Unoriented, unrelated. Random and unreferred
		B2			N/A	Loamy sand	Unsorted	Mineral	Dotted, Speckled b-fabric. Grano and poro-striated	PPL: orange brown. XPL: orange brown	Linked and coated, and embedded	Chambers 5% Channels 20% Spongey	Unoriented, unrelated. Random and unreferred

Table 2: Percentage of inclusions within microstratigraphic units, Pinbush Lane, Lowestoft, Suffolk

Deposit type	Slide number	Microstrat unit number	Thickness on slide (cm)	Bedding	Rock Fragments	Minerals							Micro-artefacts		Organic/Plant remains
					Flint	Calcite	Quartz	Microcline	Plagioclase	Muscovite	Manganese	Iron	Microdebitage	Fired earthen material	Charred wood
Buried soil	A1	i	4.1-5.4	Massive	**		****	*	**			*			
Sub-soil		ii	4.9-3.7	Massive	**		****		**	*	*		*		
	A2		6.5-7	Massive	**		****		**	*		*	*		
Buried soil		iii	1.5-2	Massive	**	*	****	*	**	*	**	**			
	B1		8-8.5	Massive	**	*	****	*	**	*	**	**	*	*	*
Sub-soil		iv	2.5	Massive	**	*	****	*	***		**	**			
	B2		10.7	Massive	**	*	****	*	***		**	**			

Key: ****** Very dominant >70%; ***** Dominant 50-70%; **** Common 30-50%; *** Frequent 15-30%; ** Few 5-15%; * Very few <5%

Table 3: Type and percentage of post-depositional within microstratigraphic units, Pinbush Lane, Lowestoft, Suffolk

Deposit type	Slide number	Unit number	Weathering					Bioturbation
			Translocation				Chemical alteration	Microstructure effects
			Dusty impure clay coatings: unlaminated	Silty Clay Coatings: moderately/ strongly orientated unlaminated	Silty clay coatings: microlaminated	Iron	Manganese neomineral formation	Mesofaunal / root bioturbation
Buried soil	A1	i	●●	●●●		●●		●●
Sub-soil		ii		●●●●	●		●●	●●
	A2			●●●●	●	●●		●●●●
Buried soil		iii	●●	●●●	●	●●●	●●●	●●●
	B1		●●	●●●	●	●●●	●●●	●●●
Sub-soil		iv	●●	●●●	●	●●●	●●●	●●●●●
	B2		●●	●●●	●	●●●	●●●	●●●●●

Key: ●●●●● Very abundant >20%; ●●●● Abundant 10-20%; ●●● Many 5-10%; ●● Occasional 2-5%; ● Rare <2%

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APPENDIX 2 SPECIFICATION

PROPOSED WAREHOUSE EXTENSION AND RESEARCH & DEVELOPMENT BUILDING, 1-3 PINBUSH ROAD, LOWESTOFT, SUFFOLK

WRITTEN SCHEME OF INVESTIGATION FOR CONTINUOUS ARCHAEOLOGICAL MONITORING/RECORDING

5th March 2015

PROPOSED WAREHOUSE EXTENSION AND RESEARCH & DEVELOPMENT BUILDING, 1-3 PINBUSH ROAD, LOWESTOFT, SUFFOLK

ARCHAEOLOGICAL MONITORING & RECORDING

1 INTRODUCTION

1.1 This specification (written scheme of investigation) has been prepared in response to a brief issued by Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT, Matthew Brudenell, dated 27th February 2015). It provides for archaeological monitoring/recording of groundworks associated with the construction of a new workshop, office and warehouse at 1-3 Pinbush Road, Gisleham, Lowestoft, Suffolk (NGR TM 527 895). The works are required to comply with a requirement of SCC AS-CT and this WSI has been prepared for their approval.

2 COMPLIANCE

2.1 The brief has been read and understood. If AS carried out the programme of archaeological works, AS would comply with SCC AS-CT's requirements.

3 SITE & DEVELOPMENT DESCRIPTION ARCHAEOLOGICAL BACKGROUND

3.1 The site extends to some 0.21ha, and the complex lies at the southern end of Pinbush Road, bounded to the south by Hadenham Road, within an area that has been subject to previous archaeological investigations revealing known remains pointing to significant prehistoric occupation of the area.

3.2 The previous archaeological works (HER Code CAC 036) involved trial trenching and subsequent monitoring carried out in 2006 when the Harrod factory extension to the immediate north took place (Good 2006). One of the trial trenches (Trench 4) was located partially with in the current proposed development site. This revealed an intact buried soil of prehistoric date, with artefacts and a hearth of Iron Age date. Further trial trench evaluation of the current site in 2014 (Heard 2014; HER GSE 088) revealed a buried prehistoric soil horizon cut by occupation features, including post holes and a ditch. In addition, archaeological excavations on the opposite side of the road have revealed further prehistoric evidence, with a significant enclosed settlement of Iron Age date, along with Bronze Age artefacts of national significance (HER CAC 035).

3.3 The detailed project background will be presented in the project report, with reference to the Suffolk Historic Environment Record.

4 BRIEF FOR ARCHAEOLOGICAL MONITORING ARRANGEMENTS FOR ARCHAEOLOGICAL MONITORING SPECIFICATION FOR MONITORING OF GROUNDWORKS

4.1 As set out in the brief (Sections 2 -4).

4.2 Research Design

4.2.1 The regional research frameworks are set out in Glazebrook (1997 and Brown & Glazebrook (2000) and updated by Medlycott and Brown (2008) and Medlycott (2011). The key issues for the Neolithic and Bronze Age (as set out by Brown & Murphy in Brown & Glazebrook 2000, 9-13) centre on the theme of the development of farming and the attendant development and integration of monuments, fields and settlements. Medlycott & Brown (2008) and Medlycott (2011, 13) suggest that future research on the Neolithic should include synthetic and regional studies for the region; an examination of the Mesolithic/Neolithic transition through radiocarbon dates; the establishment of a chronology for Neolithic ring-ditches; improved understanding of the chronological development of pottery; the excavation and study of cropmark complexes; greater understanding of burial practices; a study of the inter-relationships of settlements; greater use of scientific methods of dating and modelling of the environmental conditions during this period; targeted programmes of sedimentological, palynological and macrofossil analyses of sediment sequences in valley bottoms, lakes or the intertidal zone; and the human impact on the natural landscape during this period. The nature of Neolithic burial in the region and the pattern of burial practice, including the relationship between settlement sites and burial, require further research. Settlement sites themselves also form part of an important research subject as there is a requirement to identify if a consensus exists on the subject of non-permanent settlement in the Neolithic (Medlycott 2011, 13). Further work on understanding the effects of plough damage on Neolithic sites is considered to be an important research subject for the region (Medlycott 2011, 13).

4.2.2 Inter-relationships between settlements and greater understanding of patterns of burial practice are important areas of research for the Bronze Age (Medlycott & Brown 2008). Medlycott (2011, 21) identifies artefact studies as of particular importance for the study of the Bronze Age in the region; the typological identification of later Bronze Age pottery linked to close radiocarbon dating, the further study of Bronze Age flintworking and the significance of hoarding and other depositional practices are all identified as being key research subjects. Artefact studies can contribute to the refinement of chronologies for the period and to an assessment of the reasons behind the marked divide in research results between the northern and southern parts of the region, which are identified by Medlycott (2011, 21) as important research areas. Like the Neolithic, sedimentological, palynological and macrofossil analyses of sediment sequences are considered to be important areas of research as are the effects of colluviation and the possibility that colluvial deposits mask some significant sites (Medlycott 2011, 21).

4.2.3 Research topics for the Iron Age set out by Bryant (in Brown & Glazebrook 2000, 14-18) include further research into chronologies, precise dating and ceramic assemblages, further research into the development of the agrarian economy (particularly with regard to field systems), research into settlement chronology and

dynamics, research into processes of economic and social change during the late Iron Age and Romano-British transition (particularly with regard to the development of Aylesford/Swarling and Roman culture, and also regional differences and tribal polities in the late Iron Age and further research into *oppida* and ritual sites), further analysis of development of social organisation and settlement form/function in the early and middle Iron Age, further research into artefact production and distribution and the Bronze Age/Iron Age transition. Medlycott & Brown (2008) and Medlycott (2011, 29-32) build on these themes, paying particular attention to chronological and spatial development and variation and adding subjects as the Bronze Age/Iron Age transition and manufacturing and industry.

4.2.4 As set out above, the principal research objectives will be to identify any evidence associated with the prehistoric activity known from the site and to provide for micromorphological analysis of the buried soil.

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5 ARCHAEOLOGICAL MONITORING

5.1 The brief requires the recovery of a record of archaeological deposits that may be damaged or removed by any development (including services and landscaping). A Method Statement is provided (Appendix 2). The main objective surrounds the potential for the groundworks for the development to produce evidence for prehistoric activity.

5.2 The brief requires the continuous monitoring of all groundworks (principally the excavations for foundations and services) in order to provide a record of any archaeological deposits which might be damaged or removed by any development (including services and landscaping) permitted by the current planning consent. If the ground surface is to be reduced by more than 0.30m for

the formation level of the new floor slab then this strip will also be monitored, particularly in the south west corner where the buried soil and other deposits may be vulnerable. Any ground works, and also the upcast soil, are to be closely monitored during and after stripping in order to ensure no damage occurs to any heritage assets. Adequate time is to be allowed for archaeological recording of archaeological deposits during excavation, and of soil sections following excavation.

5.3 The programme of work will include the following stages:

- Initial clearance of soil/overburden under archaeological observation;
- Inspection of sub-soil deposits for archaeological features and environmental deposits;
- The rapid investigation and recording of any archaeological features/deposits;
- Sub-soil stripping under archaeological supervision;
- Examination of any service and foundation trenches and subsequent recording of any exposed archaeological deposits;
- Rapid examination of spoil-heaps for archaeological material;
- A programme of post-fieldwork analysis, archiving and publication, as appropriate to the results of the project.

5.4 All of the above stages and operations will be carried out in accordance with MAP2 (EH 1991) and MoRPHE (2006).

Micromorphological Sampling

Previous excavation work at the site identified a probable prehistoric buried soil horizon *c.*0.56-0.9m below the surface, which is of value for further archaeological investigation. Should this deposit be encountered during excavation work, a monolith sample for micromorphological analysis will be taken and specialist advice sought regarding sample submission and analysis. Micromorphological analysis has the potential to provide detailed information regarding the origin and formation of the buried soil and the types of activities associated with it. This has the potential to provide valuable information regarding the nature of prehistoric occupation of the site.

Stage Details

5.5 **Site clearance**: under archaeological observation

5.6 **Excavation and recording**: of those features which cannot be preserved and will be substantially disturbed. In accordance with the following standards:

- excavation of all discrete features
- all industrial features to be sampled for appropriate scientific analysis
- full written records of each context and all contexts to be planned
- sampling will adhere to the guidelines prepared by English Heritage (*Environmental Archaeology; A guide to the theory and practice of methods, from sampling and recovery to post-excavation*, 2011).

5.7 **Archaeological Observation and Recording** of all groundworks

- Observation of all groundworks, and subsequent recording of archaeological deposits
- Inspection of subsoil for archaeological features
- Investigation and recording of any exposed archaeological features/deposits
- Examination of spoil-heaps for archaeological material
- If significant remains are identified a meeting will be convened with the client and SCC AS-CT in order to agree an appropriate investigation
- A programme of post-excavation field work analysis, archiving and publication

5.8 Where possible effective **mitigation measures** will be devised according to the circumstances on site, in consultation with SCC AS-CT.

5.9 The resultant project report will follow the principles of MoRPHE (2006)

5.10 *Staffing*

Details of Archaeological Solutions Limited staff and specialist contractors are provided (Appendix 1).

5.11 *Method Statement*

The investigation will adhere to the IFA's *Standard and Guidance for Archaeological Excavations* and *Watching Briefs* and (revised 2008), in addition to the ALGAO East of England *Standards for Field Archaeology in the East of England* (Gurney 2003). A Method Statement for dealing with archaeological remains, where present, is presented (Appendix 1).

6 HEALTH AND SAFETY

6.1 Risk Assessment

A risk assessment will be completed before the work on site commences

6.2 Advice

Archaeological Solutions Limited is a member of FAME, formerly the Standing Conference of Archaeological Unit Managers (SCAUM) and operates under the 'Health & Safety in Field Archaeology Manual'.

6.3 Insurances

Archaeological Solutions Limited is a member of the Council for British Archaeology and is insured under their policy for members.

7 REPORT REQUIREMENTS

7.1 The report will include, as appropriate:

a) The archaeological background
b) A consideration of the aims and methods adopted in the course of the recording
c) A detailed account of the nature, location, extent, date, significance and quality of any archaeological evidence recorded
d) A section/s drawing showing the depth of deposits including present ground level with Ordnance Datum, vertical and horizontal scale
e) Excavation methodology and detailed results including a suitable conclusion and discussion
f) Plans and sections of any recorded features and deposits
g) Discussion and interpretation of the evidence. An assessment of the project's significance in a regional and local context and appendices
h) All specialist reports or assessments
i) A concise non-technical summary of the project results
j) A HER/OASIS summary sheet as required

7.2 Draft hard and digital PDF copies of the report will be submitted to SCC AS-CT and EH for approval. If any revisions are required, final hard and digital PDF copies will be supplied to SCC AS-CT for deposition with the HER, and EH.

7.3 The project details will be submitted to the OASIS database, and the online summary form will be appended to the project report.

7.4 A summary report will be submitted suitable for inclusion in the annual roundups of *Proceedings of the Suffolk Institute of Archaeology and History*, dependent on the results of the project.

8 ARRANGEMENTS FOR ACCESS

8.1 Access to the site is to be arranged by the client.

9 SERVICES & CONSTRAINTS, SECURITY

9.1 The client is to advise AS of the position of any services which traverse the site and any constraints which are present e.g. Tree Preservation Orders, Rights of Way.

9.2 Throughout all site works care will be taken to maintain all existing security arrangements and to minimise disruption.

10 FINDS

10.1 As set out in the brief (Section 5) and below (Appendix 1).

11 ARCHIVE

11.1 The requirements for archive storage will be agreed with the Suffolk HER, and the archive deposited there.

11.2 The archive will be deposited within three months of the conclusion of the fieldwork.

11.3 The archive will be prepared in accordance with the UK Institute for Conservation's *Conservation Guideline No.2* and according to the document *Deposition of Archaeological Archives in Suffolk* (SCC AS Conservation Team, 2010). A unique event number will be obtained from the County HER Officer.

11.4 The full archive of finds and records will be made secure at all stages of the project, both on and off site. Arrangements will be made at the earliest opportunity for the archive to be accessed into the collections of the HER; with the landowner's permission in the case of any finds. It is acknowledged that it is the responsibility of the field investigation organisation to make these arrangements with the landowner and Museums Service. The archive will be adequately catalogued, labelled and packaged for transfer and storage in accordance with the guidelines set out in the United Kingdom Institute for Conservation's *Conservation Guidelines No.2* and the other relevant reference documents.

11.5 Archive records, with inventory, are to be deposited, as well as any donated finds from the site, at the HER and in accordance with their requirements. The archive will be quantified, ordered, indexed, cross-referenced and checked for internal consistency. In addition to the overall site summary, it will be necessary to produce a summary of the artefactual and ecofactual data.

12 MONITORING

12.1 It is understood that the project will be monitored by SCC AS-CT.

13 OASIS PROJECT REPORTING

13.1 The results of the project will be reported to the OASIS Project.

APPENDIX 1

ARCHAEOLOGICAL SOLUTIONS LIMITED: PROFILES OF STAFF & SPECIALISTS

DIRECTOR
Claire Halpin BA MIfA

Qualifications: Archaeology & History BA Hons (1974-77). Oxford University Dept for External Studies In-Service Course (1979-1980). Member of Institute of Archaeologists since 1985: IFA Council member (1989-1993)
Experience: Claire has 25 years' experience in field archaeology, working with the Oxford Archaeological Unit and English Heritage's Central Excavation Unit (now the Centre for Archaeology). She has directed several major excavations (e.g. Barrow Hills, Oxfordshire, and Irthlingborough Barrow Cemetery, Northants), and is the author of many excavation reports e.g. St Ebbe's, Oxford: *Oxoniensia* 49 (1984) and 54 (1989). Claire moved into the senior management of field archaeological projects with Hertfordshire Archaeological Trust (HAT) in 1990, and she was appointed Manager of HAT in 1996. From the mid 90s HAT has enlarged its staff complement and extended its range of skills. In July 2003 HAT was wound up and Archaeological Solutions was formed. The latter maintains the same staff complement and services as before. AS undertakes the full range of archaeological services nationwide.

DIRECTOR
Tom McDonald MIfA

Qualifications: Member of the IfA
Experience: Tom has twenty years' experience in field archaeology, working for the North-Eastern Archaeological Unit (1984-1985), Buckinghamshire County Museum (1985), English Heritage (Stanwick Roman villa (1985-87) and Irthlingborough barrow excavations, Northamptonshire (1987)), and the Museum of London on the Royal Mint excavations (1986-7)., and as a Senior Archaeologist with the latter (1987-Dec 1990). Tom joined HAT at the start of 1991, directing several major multi-period excavations, including excavations in advance of the A41 Kings Langley and Berkhamsted bypasses, the A414 Cole Green bypass, and a substantial residential development at Thorley, Bishop's Stortford. He is the author of many excavation reports, exhibitions etc. Tom is AS's Health and Safety Officer and is responsible for site management, IT and CAD. He specialises in prehistoric and urban archaeology, and is a Lithics Specialist.

OFFICE MANAGER
Rose Flowers

Experience: Rose has a very wide range of book-keeping skills developed over many years of employment with a range of companies, principally Rosier Distribution Ltd, Harlow (now part of Securicor) where she managed eight accounts staff. She has a good working knowledge of both accounting software and Microsoft Office.

OFFICE ADMINISTRATOR
Sarah Powell

Experience: Sarah is an experienced and efficient administrative assistant with more than ten years' experience of working in a variety of office environments. She is IT literate and proficient in the use of Microsoft Word, particularly Microsoft Excel. She has completed NVQ

2 & 3 in Administration and Office Skills. She recently attended and completed a course in Microsoft Excel – Advanced Level.

SENIOR PROJECTS MANAGER
Jon Murray BA MIfA

Qualifications: History with Landscape Archaeology BA Hons (1985-1988).
Experience: Jon has been employed by HAT (now AS) continually since 1989, attaining the position of Senior Projects Manager. Jon has conducted numerous archaeological investigations in a variety of situations, dealing with remains from all periods, throughout London and the South East, East Anglia, the South and Midlands. He is fluent in the execution of (and now projectmanaes) desk-based assessments/EIAs, historic building surveys (for instance the recording of the Royal Gunpowder Mills at Waltham Abbey prior to its rebirth as a visitor facility), earthwork and landscape surveys, all types of evaluations/excavations (urban and rural) and environmental archaeological investigation (working closely with Dr Rob Scaife), preparing many hundreds of archaeological reports dating back to 1992. Jon has also prepared numerous publications; in particular the nationally-important Saxon site at Gamlingay, Cambridgeshire (*Anglo-Saxon Studies in Archaeology & History*). Other projects published include Dean's Yard, Westminster (*Medieval Archaeology*), Brackley (*Northamptonshire Archaeology*), and a medieval cemetery in Haverhill he excavated in 1997 (*Proceedings of the Suffolk Institute of Archaeology).* Jon is a member of the senior management team, principally preparing specifications/tenders, co-ordinating and managing the field teams. He also has extensive experience in preparing and supporting applications for Scheduled Monument Consent/Listed Building Consent

PROJECT OFFICER
Zbigniew Pozorski MA

Qualifications: University of Wroclaw, Poland, Archaeology (1995-2000, MA 2003)
Experience: Zbigniew has archaeological experience dating from 1995 when as a student he joined an academic group of excavators. He was involved in numerous archaeological projects throughout the Lower Silesia region in southwest Poland and a number of projects in old town of Wroclaw. During his university years he specialized in medieval urban archaeology. He had his own research project working on an early/high medieval stronghold in Pietrzykow. He was a member of a University team which located and Excavated an unknown high medieval castle in Wierzbna, Poland. Zbigniew has worked for archaeological contractors in Poland on several projects as a supervisor where he gained experience in all types of evaluations and excavations in urban and rural areas. Recently he worked in Ireland where he completed two large long-term projects for Headland Archaeology Ltd. He joined AS in January 2008 as a Project Officer. Zbigniew is qualified in the Construction Skills Certification Scheme (CSCS) and is a qualified in First Aid at Work (St Johns Ambulance).

SUPERVISOR
Gareth Barlow MSc

Qualifications: University of Sheffield, MSc Environmental Archaeology & Palaeoeconomy (2002-2003)
King Alfred's College, Winchester, Archaeology BA (Hons) (1999-2002)
Experience: Gareth worked on a number of excavations in Cambridgeshire before pursuing his degree studies, and worked on many archaeological projects across the UK during his university days. Gareth joined AS in 2003 and has worked on numerous archaeological projects throughout the South East and East Anglia with AS. Gareth was promoted to Supervisor in the Summer 2007. Gareth is qualified in the Construction Skills Certification Scheme (CSCS) and is a qualified in First Aid at Work (St Johns Ambulance).

SUPERVISOR
Kamil Orzechowski BA, MA

Experience: Kamil Orzechowski joined AS in 2012, as an experienced field archaeologist after spending five years in various commercial archaeology units working on large-scale construction projects including railways and pipelines. Before becoming a field archaeologist, Kamil graduated from the Institute of Ethnology and Cultural Anthropology, Adam Mickiewicz University, Poznan, Poland. Kamil is qualified in the Construction Skills Certification Scheme (CSCS).

SUPERVISOR
James Earley

Experience: James' site experience dates from 2002 – 2006 when he was a Project Assistant with Suffolk County Council Archaeological Service. From Suffolk he was an Archaeological Officer with Thames Valley Archaeological Service (2006 – 2013), and more recently the University of Leicester Archaeological Service. James has over 10 years' field experience on both urban and rural sites. He has supervised staff, supervised topsoil and subsoil stripping for evaluations and excavations, and has surveyed sites using both GPS and Total Station.

SUPERVISOR
Julie Walker BSc MA PIfA

Qualifications: Queens University Belfast: BSc Archaeology (2007-2010)
University of Southampton: MA Osteoarchaeology (2010-2011)
Experience: Julie is a member of the Institute for Archaeologists (PIfA grade) and the British Association for Biological Anthropology and Osteoarchaeology. Professionally, Julie has worked for organisations including Albion Archaeology (2014) and Oxford Archaeology East (2014). Julie has a thorough knowledge and experience of archaeological fieldwork and post-excavation practice. Julie's personal research interests include congenital and developmental defects in the Romano-British and Anglo-Saxon periods and she has made several conference presentations on this subject.

SUPERVISOR
Matthew Baker BA MA

Qualifications: Cardiff University: BA Archaeology (2008-2011)
Cardiff University: MA Archaeology (2012-2013)
Experience: Since concluding his higher education, Matthew has worked for a number of archaeological projects and organisations including GeoArch (Cardiff), the Damerham Archaeology Project and Cambridge University. He has a gained a varied experience of archaeological fieldwork and post-excavation practice including geophysical survey/ interpretation and isotopic analysis.

SUPERVISOR
Kerrie Bull BSc

Qualifications: University of Reading: BSc Archaeology (2008-2011)
Experience: During her undergraduate degree at the University of Reading Kerrie worked on the Lyminge Archaeological Project (2008), the Silchester 'Town Life' Project (2009) and the Ecology of Crusading Research Programme (2011). Through her academic and professional career, Kerrie has gained good experience of archaeological fieldwork and post-excavation techniques.

SUPERVISOR
Thomas Muir BA MSc

Qualifications: University of Edinburgh: BA Archaeology (2007-2011)
University of Edinburgh: MSc Mediterranean Archaeology (2011-2012)
Experience: Thomas is an affiliate member of the Institute for Archaeologists. Throughout his higher education, Thomas volunteered on research excavations at sites including Port Sec Sud, Bourges (France; 2008), the Hill of Barra (the Hillforts of Strathdon Project; 2010) and Prastio Mesorotsos, Cyprus (2010-2012). In 2013 Thomas returned to Prastio Mesorotsos – a research project run by the Cyprus American Archaeological Institute – in a supervisory capacity. Professionally, Thomas has worked for CFA Archaeology (2013) and thereafter AS Ltd. Through his academic and professional career, Thomas has gained a broad working knowledge of archaeological fieldwork and post-excavation techniques including environmental sampling, on-site recording and digital archiving.

SUPERVISOR
Vincent Monahan BA

Qualifications: University College Dublin: BA Archaeology (2007-2012)
Experience: Professionally, Vincent has worked for various archaeological groups and projects including the Stonehenge Riverside Project (Site Assistant/ Supervisor; 2008), University College Dublin Archaeological Society (Auditor; 2009-2010) and the Castanheiro do Vento Research Project (Site Assistant/ Supervisor; 2009-2010 (seasonal)). Vincent has gained good experience of archaeological fieldwork including excavation, various sampling techniques and on-site recording. He also gained experience of museum-grade curatorial practice during his undergraduate degree.

PROJECT OFFICER
(DESK-BASED ASSESSMENTS) Kate Higgs MA (Oxon)

Qualifications: University of Oxford, St Hilda's College Archaeology & Anthropology MA (Oxon) (2001-2004)
Experience: Kate has archaeological experience dating from 1999, having taken part in clearance, surveying and recording of stone circles in the Penwith area of Cornwall. During the same period, she also assisted in compiling a database of archaeological and anthropological artefacts from Papua New Guinea, which were held in Scottish museums. Kate has varied archaeological experience from her years at Oxford University, including participating in excavations at a Roman amphitheatre and an early church at Marcham/ Frilford in Oxfordshire, with the Bamburgh Castle Research Project in Northumberland, which also entailed the excavation of human remains at a Saxon cemetery, and also excavating, recording and drawing a Neolithic chambered tomb at Prissé, France. Kate has also worked in the environmental laboratory at the Museum of Natural History in Oxford, and as a finds processor for Oxford's Institute of Archaeology. Since joining AS in November 2004, Kate has researched and authored a variety of reports, concentrating on desk-based assessments in advance of archaeological work and historic building recording.

ASSISTANT PROJECTS MANAGER (POST-EXCAVATION)
Andrew Newton MPhil PIFA

Qualifications: University of Bradford, MPhil (2002-04)
University of Bradford, BSc (Hons) Archaeology (1998-2002)
University of Bradford, Dip Professional Archaeological Studies (2002)

Experience: Andrew has carried out geophysical surveys for GeoQuest Associates on sites throughout the UK and has worked as a site assistant with BUFAU. During 2001 he worked as a researcher for the Yorkshire Dales Hunter-Gatherer Research Project, a University of Bradford and Michigan State University joint research programme, and has carried out voluntary work with the curatorial staff at Beamish Museum in County Durham. Andrew is a member of the Society of Antiquaries of Newcastle-upon-Tyne and a Practitioner Member of the Institute for Archaeologists. Since joining AS in early Summer 2005, as a Project Officer writing desk-based assessments, Andrew has gained considerable experience in post-excavation work. His principal role with AS is conducting post-excavation research and authoring site reports for publication. Significant post-excavation projects Andrew has been responsible for include the Ingham Quarry Extension, Fornham St. Genevieve, Suffolk – a site with large Iron Age pit clusters arranged around a possible wetland area; the late Bronze Age to early Iron Age enclosure and early Saxon cremation cemetery at the Chalet Site, Heybridge, Essex; and, Church Street, St Neots, Cambridgeshire, an excavation which identified the continuation of the Saxon settlement previously investigated by Peter Addyman in the 1960s. Andrew also writes and co-ordinates EnvironmentalImpact Assessments and has worked on a variety of such projects across southern and eastern England. In addition to his research responsibilities Andrew undertakes outreach and publicity work and carries out some fieldwork.

PROJECT OFFICER (POST-EXCAVATION)
Antony Mustchin BSc MSc DipPAS

Qualifications: University of Bradford BSc (Hons) Bioarchaeology (1999-2003)
University of Bradford MSc Biological Archaeology (2004-2005)
University of Bradford Diploma in Professional Archaeological Studies (2003)

Experience: Antony has over 14 years' experience in field archaeology, gained during his higher education and in the professional sector. Commercially in the UK, Antony has worked for Archaeology South East (2003), York Archaeological Trust (2004) and Special Archaeological Services (2003). He has also undertaken a six-month professional placement as Assistant SMR Officer/ Development Control Officer with Kent County Council (2001-2002). Antony's academic interests have led to his gaining considerable research excavation experience across the North Atlantic region. He has worked for projects and organisations including the Old Scatness & Jarlshof Environs Project, Shetland (2000-2003), the Viking Unst Project, Shetland (2006-2007), the Heart of the Atlantic Project Føroys Fornminnissavn, Faroe Islands (2006-2008) and City University New York/ National Museum of Denmark/ Greenland National Museum and Archives, Greenland (2006 & 2010). Shortly before Joining Archaeological Solutions in November 2011, Antony spent three years working for the Independent Commission for the Location of Victims Remains, assisting in the search for and forensic recovery of 'the remains of victims of paramilitary violence ("The Disappeared") who were murdered and buried in secret arising from the conflict in Northern Ireland'. Antony has a broad experience of fieldwork and post-excavation practice including specialist (archaeofauna), teaching, supervisory and directing-level posts.

POTTERY, LITHICS AND CBM RESEARCHER
Andrew Peachey BA MIfA

Qualifications: University of Reading BA Hons, Archaeology and History (1998-2001)
Experience: Andrew joined AS (formerly HAT) in 2002 as a pottery researcher, and rapidly expanded into researching CBM and lithics. Andrew specialises in prehistoric and Roman pottery and has worked on numerous substantial assemblages, principally from across East Anglia but also from southern England. Recent projects have included a Neolithic site at Coxford, Norfolk, an early Bronze Age domestic site at Shropham, Norfolk, late Bronze Age material from Panshanger, Hertfordshire, middle Iron Age pit clusters at Ingham, Suffolk and an Iron Age and early Roman riverside site at Dernford, Cambridgshire. Andrew has worked on important Roman kiln assemblages, including a Nar Valley ware production site at East Winch Norfolk, a face-pot producing kiln at Hadham, Hertfordshire and is currently researching early Roman Horningsea ware kilns at Waterbeach, Cambridgeshire. Andrew is an enthusiastic member of the Study Group for Roman Pottery, and also undertakes pottery and lithics analysis as an 'external' specialist for a range of archaeological units and local societies in the south of England.

POTTERY RESEARCHER
Peter Thompson MA

Qualifications: University of Bristol BA (Hons), Archaeology (1995-1998)
University of Bristol MA; Landscape Archaeology (1998-1999)
Experience: As a student, Peter participated in a number of projects, including the excavation of a Cistercian monastery cemetery in Gascony and surveying an Iron Age promontory hillfort in Somerset. Peter has two years excavation experience with the Bath Archaeological Trust and Bristol and Region Archaeological Services which includes working on a medieval manor house and a post-medieval glass furnace site of national importance. Peter joined HAT (now AS) in 2002 to specialise in Iron Age, Saxon and medieval pottery research and has also produced desk-based assessments. Pottery reports include an early Iron pit assemblage and three complete Early Anglo-Saxon accessory vessels from a cemetery in Dartford, Kent.

PROJECT OFFICER (OSTEOARCHAEOLOGY)
Dr Julia Cussans

Qualifications: University of Bradford, PhD (2002-2010)
University of Bradford, BSc (Hons) Bioarchaeology (1997- 2001)
University of Bradford, Dip. Professional Archaeological Studies (2001)
Experience: Julia has over 14 years of archaeozoological experience. Whilst undertaking her part time PhD she also worked as a specialist on a variety of projects in northern Britain including Old Scatness (Shetland), Broxmouth Iron Age Hillfort and Binchester Roman Fort. Additionally Julia has extensive field experience and has held lead roles in excavations in Shetland and the Faroe Islands including, Old Scatness, a large multi-period settlement centred on an Iron Age Broch; the Viking Unst Project, an examination of Viking and Norse houses on Britain's most northerly isle; the Laggan Tormore Pipeline (Firths Voe), a Neolithic house site in Shetland; the Heart of the Atlantic Project, an examination of Viking settlement in the Faroes and Við Kirkjugarð, an early Viking site on Sanday, Faroe Islands. Early on in her career Julia also excavated at Sedgeford, Norfolk as part of SHARP and in Pompeii, Italy as part of the Anglo-American Project in Pompeii. Since joining AS in October 2011 Julia has worked on animal bone assemblages from Beck Row, a Roman agricultural site at Mildenhall, Suffolk and Sawtry, an Iron Age, fen edge site in Cambridgeshire. Julia is a full and active member of the International Council for Archaeozoology, the Professional Zooarchaeology Group and the Association for Environmental Archaeology.

ENVIRONMENTAL ARCHAEOLOGIST
Dr John Summers

Qualifications: 2006-2010: PhD "The Architecture of Food" (University of Bradford)
2005-2006: MSc Biological Archaeology (University of Bradford)
2001-2005: BSc Hons. Bioarchaeology (University of Bradford)

Experience: John is an archaeobotanist with a primary specialism in the analysis of carbonised plant macrofossils and charcoal. Prior to joining Archaeological Solutions, John worked primarily in Atlantic Scotland. His research interests involve using archaeobotanical data in combination with other archaeological and palaeoeconomic information to address cultural and economic research questions. John has made contributions to a number of large research projects in Atlantic Scotland, including the Old Scatness and Jarlshof Environs Project (University of Bradford), the Viking Unst Project (University of Bradford) and publication work for Bornais Mound 1 and Mound 2 (Cardiff University). He has also worked with plant remains from Thruxton Roman Villa, Hampshire, as part of the Danebury Roman Environs Project (Oxford University/ English Heritage). John's role at AS is to analyse and report on assemblages of plant macro-remains from environmental samples and provide support and advice regarding environmental sampling regimes and sample processing. John is a member of the Association for Environmental Archaeology.

SENIOR GRAPHICS OFFICER
Kathren Henry

Experience: Kathren has over twenty-five years' experience in archaeology, working as a planning supervisor on sites from prehistoric to late medieval date, including urban sites in London and rural sites in France/ Italy, working for the Greater Manchester Archaeological Unit, Passmore Edwards Museum, DGLA and Central Excavation Unit of English Heritage (at Stanwick and Irthlingborough, Northamptonshire). She has worked with AS (formerly HAT) since 1992, becoming Senior Graphics Officer. Kathren is AS's principal photographer, specializing in historic building survey, and she manages AS's photographic equipment and dark room. She is in charge of AS's Graphics Department, managing computerised artwork and report production. Kathren is also the principal historic building surveyor/illustrator, producing on-site and off-site plans, elevations and sections.

HISTORIC BUILDING RECORDING
Tansy Collins BSc

Qualifications: University of Sheffield, Archaeological Sciences BSc (Hons) (1999-2002)

Experience: Tansy's archaeological experience has been gained on diverse sites throughout England, Ireland, Scotland and Wales. Tansy joined AS in 2004 where she developed skills in graphics, backed by her grasp of archaeological interpretation and on-site experience, to produce hand drawn illustrations of pottery, and digital illustrations using a variety of packages such as AutoCAD, Corel Draw and Adobe Illustrator. She joined the historic buildings team in 2005 in order to carry out both drawn and photographic surveys of historic buildings before combining these skills with authoring historic building reports in 2006. Since then Tansy has authored numerous such reports for a wide range of building types; from vernacular to domestic architecture, both timber-framed and brick built with date ranges varying from the medieval period to the 20th century. These projects include a number of regionally and nationally significant buildings, for example a previously unrecognised medieval aisled barn belonging to a small group of nationally important agricultural buildings, one of the earliest surviving domestic timber framed houses in Hertfordshire, and a Cambridgeshire house retaining formerly hidden 17th century decorative paint schemes. Larger projects include The King Edward VII Sanatorium in Sussex, RAF Bentley Priory in London as well as the Grade I Listed Balls Park mansion in Hertfordshire.

FINDS AND ARCHIVE ASSISTANT
Adam Leigh

Experience: Adam joined AS in January 2012. In his time with the company he has helped process hundreds of finds from a variety of sites going on to concord them. Adam has helped prepare a large number of sites for deposition with museums making sure that the finds are prepared in strict accordance with the guidelines and requirements laid out by the receiving museum.

ASSISTANT ARCHIVES OFFICER
Karen Cleary

Experience: Karen started her administrative career as Youth Training Administrator for a training company (TSMA Ltd) in 1993, where she provided administrative support for NVQ Assessors' of trainees and apprentices on the youth training scheme and in work placements they'd helped set up. Amongst her administrative duties she was principally in charge of preparing the Training Credits Claims and sending off for government funding. She gained NVQ's Level's 2 and 3 in Administration whilst working in this role. Karen started out with AS as Office Assistant in February 2009 and within a few months was promoted to Archives Assistant. Principally her role involves the preparation of Archaeological archives for long term deposition with museums. She has developed a good understanding of the preparation process and follows each individual museum's guidelines closely. She has a good working knowledge of Microsoft Office and is competent with *FileZilla*- Digital File Transfer software and *Fastsum*-Checksum Creation software.

ARCHAEOLOGICAL SOLUTIONS: PRINCIPAL SPECIALISTS

GEOPHYSICAL SURVEYS	Sam Egan Dr John Summers
AIR PHOTOGRAPHIC ASSESSMENTS	Air Photo Services
PHOTOGRAPHIC SURVEYS	Ms K Henry
PREHISTORIC POTTERY	Mr A Peachey
ROMAN POTTERY	Mr A Peachey
SAXON & MEDIEVAL POTTERY	Mr P Thompson
POST-MEDIEVAL POTTERY	Mr P Thompson
FLINT	Mr A Peachey
GLASS	H Cool
COINS	British Museum, Dept of Coins & Medals
METALWORK & LEATHER	Ms Q Mould, Ms N Crummy
SLAG	Ms J Cowgill
ANIMAL BONE	Dr J Cussans
HUMAN BONE:	Ms S Anderson
ENVIRONMENTAL CO-ORDINATOR	Dr R Scaife
POLLEN AND SEEDS:	Dr R Scaife
CHARCOAL/WOOD	Dr J Summers
SOIL MICROMORPHOLOGY	Dr R MacPhail, Dr C French
CARBON-14 DATING:	English Heritage Ancient Monuments Laboratory (for advice).
CONSERVATION	University of Leicester

APPENDIX 2

METHOD STATEMENT

Method Statement for the recording of archaeological remains

The archaeological evaluation will be conducted in accordance with the project brief, and the code of the Institute of Field Archaeologists.

1 Mechanical Excavation

1.1 Mechanical excavation will be monitored by an experienced archaeologist.

2 Site Location Plan

2.1 On conclusion of the mechanical excavation, a `site location plan', based on the current Ordnance Survey 1:1250 map and indicating site north, will be prepared. This will be supplemented by an 'area plan' at 1:200 (or 1:100) which will show the location of the area(s) investigated in relationship to the development area, OS grid and site grid.

3 Manual Cleaning & Base Planning of Archaeological Features

3.1 Exposed areas will be hand-cleaned to define archaeological features sufficient to produce a base plan.

4 Full Excavation

Excavation of Stratified Sequences

The trenches will be excavated according to phase, from the most recent to the earliest, and the phasing of features will be distinguished by their stratigraphic relationships, fills and finds.

Deep features e.g. quarry holes, may incorporate stratified deposits which will be excavated by hand-dug sections and recorded.

Excavation of Buildings

Building remains are likely to comprise stake holes, post holes and slots/gullies, masonry foundations and low masonry walls. Associated features may be present e.g. hearths.

The features comprising buildings will be excavated in plan/phase where revealed, as appropriate to the project

Full Excavation

Industrial remains and intrinsically interesting features e.g hearths, burials will clearly merit full excavation where revealed. Discrete features associated with the possible structure and/or settlement will be fully excavated.

Ditches

The ditches will be excavated in segments up to 2m long, and the segments will be placed to provide adequate coverage of the ditches, establish their relationships and obtain samples and finds.

5 Written Record

5.1 All archaeological deposits and artefacts encountered during the course of the excavation will be fully recorded on the appropriate context, finds and sample forms.

5.2 The site will be recorded using AS's excavation manual which is directly comparable to those used by other professional archaeological organisations, including English Heritage's own Central Archaeological Service.

6 Photographic Record

6.1 An adequate photographic record of the investigations will be made. It will include black and white prints and colour transparencies (on 35mm) illustrating in both detail and general context the principal features and finds discovered. It will also include 'working and promotional shots' to illustrate more generally the nature of the archaeological operations. The black and white negatives and contacts will be filed, and the colour transparencies will be mounted using appropriate cases. All photographs will be listed and indexed.

7 Drawn Record

7.1 A record of the full extent, in plan, of all archaeological deposits encountered will be drawn on A1 permatrace. The plans will be related to the site, or OS, grid and be drawn at a scale of 1:50 or 1:20, as appropriate. In addition where appropriate, e.g. recording an inhumation, additional plans at 1:10 will be produced. The sections of all archaeological contexts will be drawn at a scale of 1:10 or, where appropriate, 1:20. The OD height of all principal strata and features will be calculated and indicated on the appropriate plans and sections.

8 Recovery of Finds

GENERAL

The principal aim is to ensure that adequate provision is made for the recovery of finds from all archaeological deposits.

The Small Finds, e.g. complete pots or metalwork, from all excavations will be 3-dimensionally recorded.

A metal detector will be used to enhance finds recovery. The metal detector survey will be conducted on conclusion of the topsoil stripping, and thereafter during the course of the excavation. The spoil tips will also be surveyed. Regular metal detector surveys of the excavation area and spoil tips will reduce the loss of finds to unscrupulous users of metal detectors (treasure hunters). All non-archaeological staff working on the site should be informed that the use of metal detectors is forbidden.

WORKED FLINT

When flint knapping debris is encountered large-scale bulk samples will be taken for sieving.

POTTERY

It is important that the excavators are aware of the importance of pottery studies and therefore the recovery of good ceramic assemblages.

The pottery assemblages are likely to provide important evidence to be able to date the structural history and development of the site.

The most important assemblages will come from ‘sealed’ deposits which are representative of the nature of the occupation at various dates, and indicate a range of pottery types and forms available at different periods.

‘Primary’ deposits are those which contain sherds contemporary with the soil fill and in simple terms this often means large sherds with unabraded edges. The sherds have usually been deposited shortly after being broken and have remained undisturbed. Such sherds are more reliable in indicating a more precise date at which the feature was `in use'. Conversely, ‘secondary’ deposits are those which often have small, heavily abraded sherds lacking obvious conjoins. The sherds are derived from earlier deposits.

HUMAN BONE

Should human remains be discovered, which is possible on this site, and be required to be removed, the coroner will be informed and a licence from the Ministry of Justice sought immediately; both the client and the monitoring officer will also be informed.

Any excavation of human remains would only be carried out following advice from SCC AS-CT. Excavators would be made aware, and comply with, provisions of Section 25 of the Burial Act of 1857 and pay due attention to the requirements of Health & Safety.

ANIMAL BONE

Animal bone is one of the principal indicators of diet. As with pottery the excavators will be alert to the distinction of primary and secondary deposits. It will also be important that the bone assemblages are derived from dateable contexts.

ENVIRONMENTAL SAMPLING

The sampling will adhere to the guidelines prepared by English Heritage (2011) and the specialist will make his results known to Dr Zoe Outram who co-ordinates environmental archaeology in the region on behalf of English Heritage. If important environmental remains are present a visit to the site by an environmental specialist will be arranged. Micropmorphological sampling/analysis will be carried out on this site.

Environmental sampling will follow guidelines outlined in *Working papers of the Association for Environmental Archaeology, No. 2: Environmental archaeology and archaeological evaluation* (1995) and *Environmental Archaeology; a guide to the theory and practice of methods, from sampling and recovery to post-excavation,* Centre for Archaeology Guidelines (2011).

FINDS PROCESSING

The project director will have overall responsibility for the finds and will liaise with AS's own finds personnel and the relevant specialists. A person with particular responsibility for finds on site will be appointed for the excavation. The person will ensure that the finds are properly labelled and packaged on site for transportation to AS's field base. The finds processing will take place in tandem with the excavations and will be under the supervision of AS's Finds Officer.

The finds processing will entail first aid conservation, cleaning (if appropriate), marking (if appropriate), categorising, bagging, labelling, boxing and basic cataloguing (the compilation of a Small Finds Catalogue and quantification of bulk finds) i.e. such that the finds are ready to be made available to the specialists. The Finds Officer, having been advised by the Project Officer and relevant specialists, will select material for conservation. AS's Finds Officer, in conjunction with the Project Officer, will arrange for the specialists to view the finds for the purpose of report writing.

APPENDIX 3 OASIS DATA COLLECTION FORM

OASIS DATA COLLECTION FORM: England

Printable version

OASIS ID: archaeol7-229703

Project details

Project name	PROPOSED WAREHOUSE EXTENSION AND RESEARCH and DEVELOPMENT BUILDING, 1-3 PINBUSH ROAD, LOWESTOFT, SUFFOLK
Short description of the project	In November 2015 Archaeological Solutions Ltd (AS) carried out a programme of archaeological monitoring and recording at 1-3 Pinbush Road, Gisleham, Lowestoft, Suffolk. The project was undertaken to comply with a condition attached to planning consent for the commercial development of the site. The area immediately to the north of the current site was subject to archaeological trial trenching and monitoring in 2006; one trench lay partially within the current development area and contained an intact buried prehistoric soil, associated artefacts and an Iron Age hearth (Good 2006). Further evaluation of the current site in 2014 revealed a buried prehistoric soil horizon cut by occupation features, including postholes and a ditch (Heard 2014; SHER GSE088). Excavations c. 125m to the south recorded a late Bronze Age/ early Iron Age enclosure, a roundhouse and contemporary activity (Heard 2010; SHER CAC035). Early Bronze Age artefacts of national significance were also encountered in this area. In the event, the monitoring of groundworks by AS encountered a buried soil (L1003), thought to correspond with the previously identified prehistoric horizon in the south-western corner of the site. Micromorphological analysis of L1003 confirmed the presence of two buried soils, each with associated subsoils and anthropogenic material. No archaeological features or finds were present.
Project dates	Start: 01-11-2015 End: 30-11-2015
Previous/future work	No / No
Any associated project reference codes	P5692 - Contracting Unit No.
Any associated project reference codes	GSE129 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Other 3 - Built over
Monument type	BURIED PREHISTORIC SOIL Late Prehistoric
Significant Finds	NONE None
Investigation type	"Watching Brief"
Prompt	Planning condition

Project location

Country	England
Site location	SUFFOLK WAVENEY LOWESTOFT PROPOSED WAREHOUSE EXTENSION AND RESEARCH and DEVELOPMENT BUILDING, 1-3 PINBUSH ROAD, LOWESTOFT, SUFFOLK
Postcode	NR337NL
Study area	0.21 Hectares
Site coordinates	TM 527 895 52.444308657748 1.718933266616 52 26 39 N 001 43 08 E Point
Height OD / Depth	Min: 15m Max: 15m

Project creators

Name of Organisation	Archaeological Solutions Ltd
Project brief originator	Suffolk County Council Archaeological Service Conservation Team
Project design originator	Jon Murray
Project director/manager	Jon Murray
Project supervisor	Kamil Orzechowski

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Suffolk County Archaeological Store
Digital Contents	"Survey"
Digital Media available	"Images raster / digital photography","Survey","Text"
Paper Archive recipient	Suffolk County Archaeological Store
Paper Contents	"Survey"
Paper Media available	"Drawing","Photograph","Plan","Report","Survey "

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Proposed Warehouse Extension and Research and Development Building, 1-3 Pinbush Road, Lowestoft, Suffolk
Author(s)/Editor(s)	Orzechowski, K
Other bibliographic details	Archaeological Solutions Report No. 5030
Date	2016
Issuer or publisher	Archaeological Solutions Ltd
Place of issue or publication	Bury St Edmunds

Entered by	Sarah Powell (info@ascontracts.co.uk)
Entered on	17 February 2017

OASIS:

Please e-mail Historic England for OASIS help and advice

PHOTOGRAPHIC INDEX

1
General view of site, looking north.

2
Site clearance in progress.

3
General view of site after clearance, looking north.

4
Excavation of Pad 1. Looking southeast.

5
Excavating Pad 2. Looking south.

6
Sample section 1. Pad 1, looking south.

7
Sample section2. Pad 2, looking south.

8
Monolith sample in Pad 2. Looking south.

9
Pad 9, looking north.

10
View of excavated pads, looking west.

Archaeological Solutions Ltd

Fig. 1 Site location plan

Scale 1:25,000 at A4

Pinbush Road, Lowestoft, Suffolk (P5692)

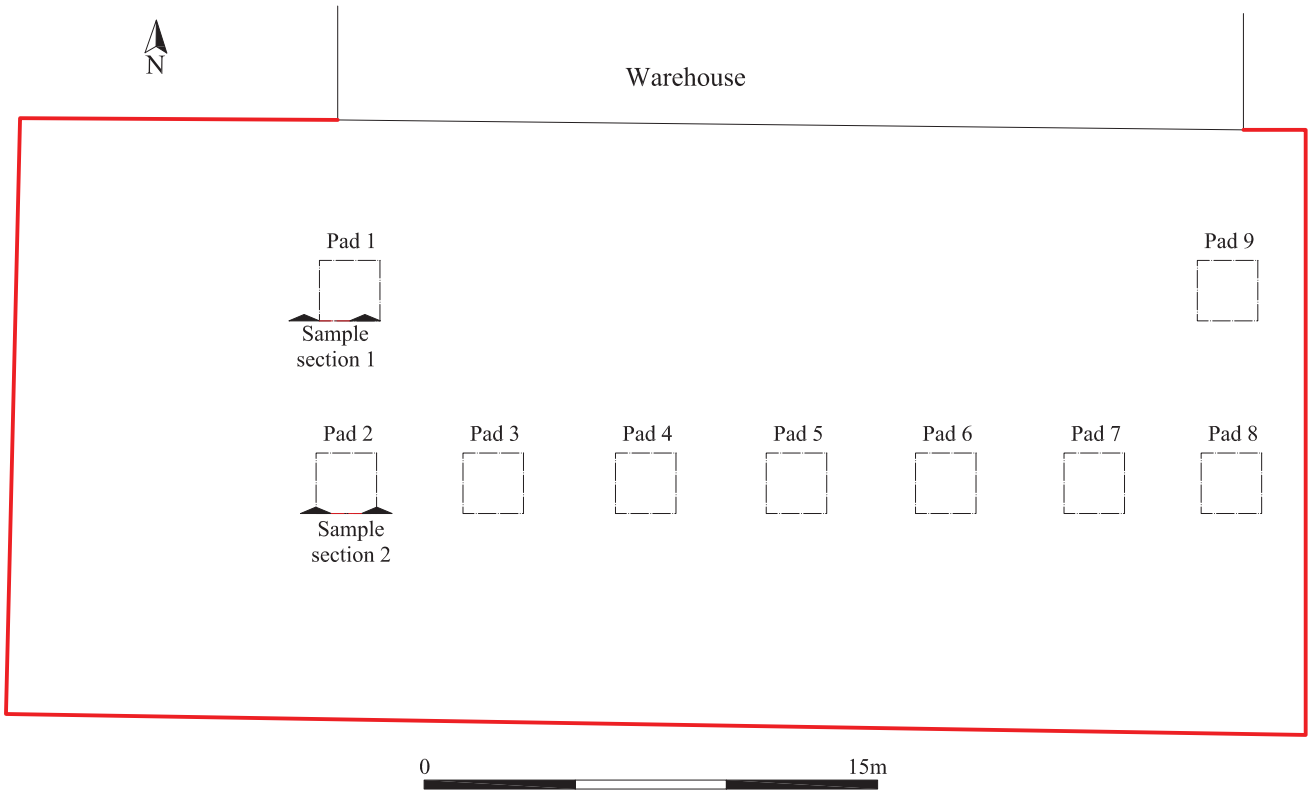
0 300m

Archaeological Solutions Ltd

Fig. 2 Detailed site location plan

Scale 1:5000 at A4

Pinbush Road, Lowestoft, Suffolk (P5692)



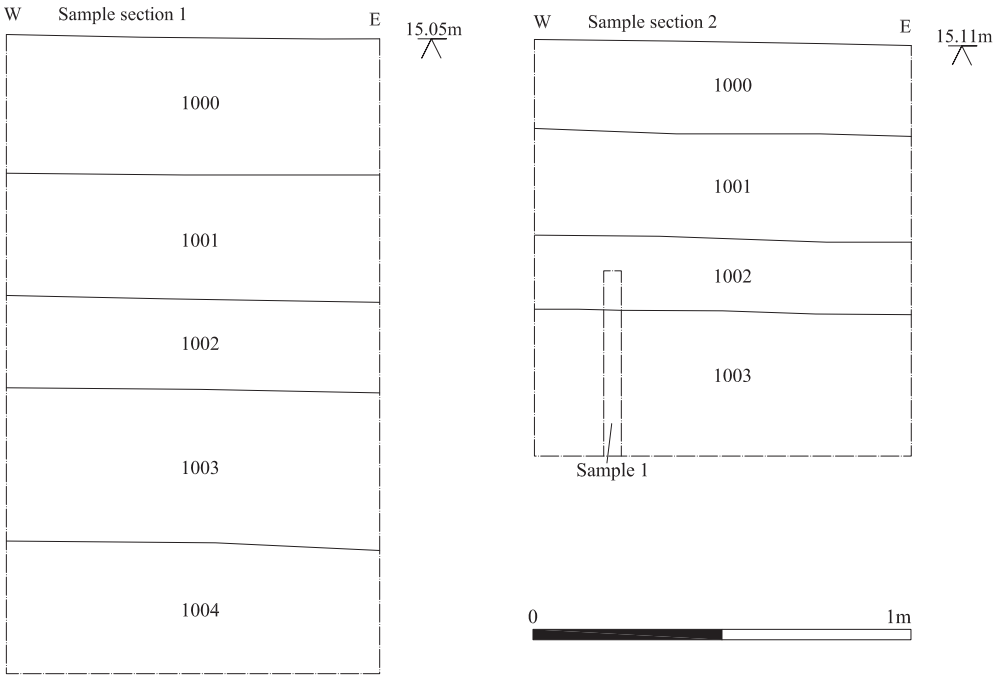


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Fig. 3 Plan and sections
Scale 1:250 and 1:20 at A4
Pinbush Road, Lowestoft, Suffolk (P5692)