

# ARCHAEOLOGICAL SERVICE

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## **Handford Road, Ipswich (IPS 280), Archaeological Assessment Report (Volume 1: Text)**

**SCCAS Report No. 2004/87**

(Job No. IPSW/HAN/001; Oasis Rpt. No. suffolkc1-2986)



Sunken Featured Building 0699

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© April 2005

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*Environment and Transport*

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The project was directed by Stuart Boulter and managed by Tom Loader and John Newman, who also provided advice during the production of the report.

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## Summary

Ipswich, Handford Road (TM 1530 4455; IPS 280) Prior to the construction of a residential development on a c.1 hectare area on the south side of Handford Road, Ipswich, formerly the Firmin Works Site, an archaeological excavation, covering approximately half of the development area, was carried out by Suffolk County Council's Archaeological Service.

A trial-trenching evaluation previously undertaken in 1997 had identified significant archaeological deposits of Roman date close to the road frontage, particularly towards the north-east corner of the site. The Roman archaeology appeared to span the whole of that period, comprising incised features, predominantly ditches, of earlier Roman date with an overlying occupation layer which included later Roman finds. In addition, a single sherd of Early Saxon pottery and a possible sherd of Ipswich Ware were recovered.

The initial phase of the excavation involved the mechanical removal of the upper layers of overburden leaving approximately 0.2 metres of the occupation layer. The site was then divided into 2 metre squares from which a ten-bucket sample was removed from each and manually sieved to recover artefactual evidence. Relatively undisturbed subsoil/occupation layer was identified towards the north-west corner of the site, whereas for the remainder of the excavation area the soil was mixed. Significant quantities of Roman and Early Anglo Saxon artefacts were recovered from this mixed layer, including metalwork, but also with a large amount of medieval and post-medieval material. Where mixed, the layer was thought to represent a medieval/post-medieval plough soil further disturbed by the later post-medieval semi-industrial activity on the site. A good proportion of the metal detector finds of Roman date were also recovered from the sampled squares including a large number of coins.

Secondary machining then reduced the level of the site down to the naturally occurring sand and gravel subsoil. A complex series of ditches was revealed, particularly towards the southern and eastern sides of the site, with frequent re-cuts and realignments. Although only preliminary work had, at the time, been undertaken on the finds it appeared that the majority of these features were of earlier Roman date. In one area of the site, the ditches included large quantities of metalworking slag in their fills. Other significant features initially attributed to the Roman Period included a sunken track, leading to a timber-lined well, a crescent-shaped oven (subsequently thought to be Early Anglo Saxon), a pottery kiln and a rectilinear enclosure delimited by large post-holes. The enclosure was located in the north-east corner of the site, continuing on under the Handford Road, to the north, and into the British Telecom site immediately to the east and was respected by the ditch complex to the south.

The Early Saxon Period had only been represented by a single sherd of handmade pottery in the evaluation and it was a great surprise when it became clear that there was a significant phase of activity on the site relating to that period (5<sup>th</sup>-7<sup>th</sup> centuries). Five definite SFB's (Sunken Featured Buildings) were identified, along with at least three rectangular surface lain post-hole buildings, of the type described as 'Halls' on sites such as West Stow, and numerous post-holes which could not easily be attributed to an identifiable structure. Other features positively dated to this period included a number of circular pits. Artefactual evidence included ceramics, animal bone, bone objects, spindle whorls, iron knives, a glass bead, a wrist clasp and miscellaneous ironwork. It is likely that during the examination of the artefactual evidence more features will be identified as belonging to this phase.

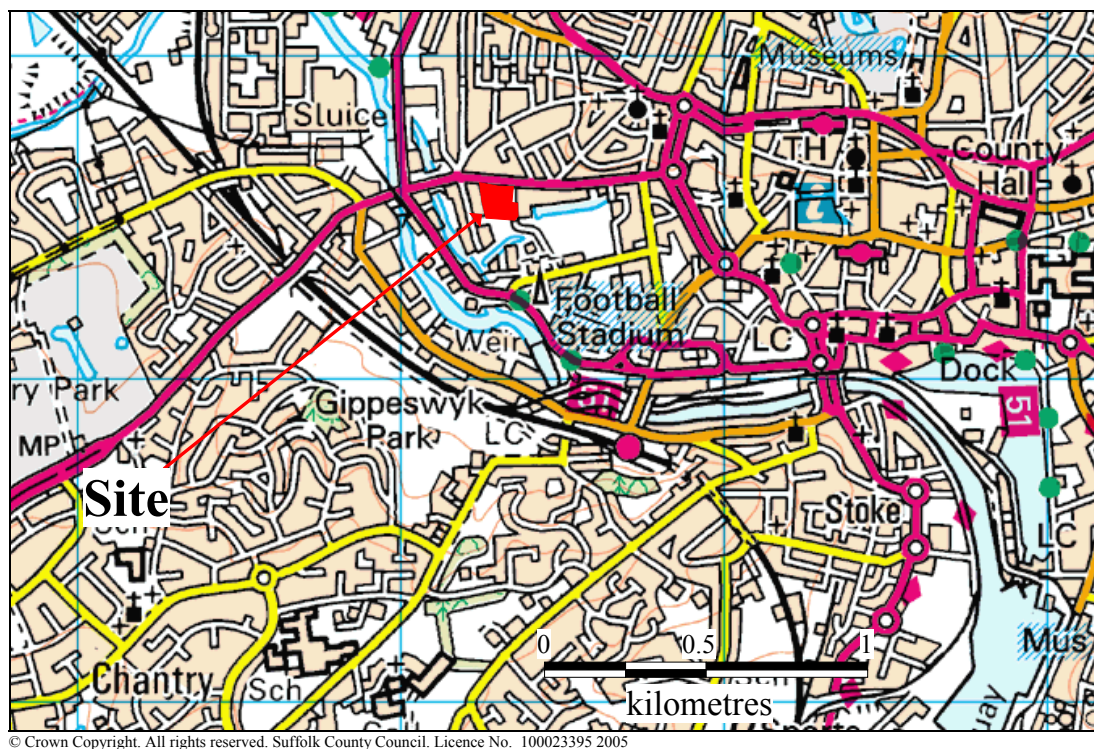
Post-medieval deposits included boundary ditches and buildings, which predated the semi-industrial use of the site, along with walls, stanchion bases and drains associated with the Firmin works.  
(Stuart Boulter for Suffolk County Council & J. S. Bloor (Sudbury) Ltd)



## 1. Introduction

### 1.1 Site Location, Topographic Setting & Drift Geology

The c.1 hectare site is located on the south side of Handford Rd, Ipswich (centred on TM 1530 4455) (Fig. 1).



**Fig. 1** 1:25,000 scale map showing the location of the site

The site appeared to be relatively flat, at approximately 5 metres OD, although this was found to be the result of landscaping associated with the industrial buildings that had previously occupied the site. The underlying topographic trend was in fact characterised by a gentle slope down from north to south towards an extant water course some 60 metres to the south and 40 metres to the south east of the site. This has been interpreted as either a canalised former channel of the River Gipping or a totally manmade feature.

The underlying drift geology comprised well-drained glaciogenic/periglacial sands and gravels.

### 1.2 Planning Background

The site has been the subject of a number of planning proposals prior to that which was submitted by J. S. Bloor (Sudbury) Ltd. (IP/03/00514/FUL) for a housing development.

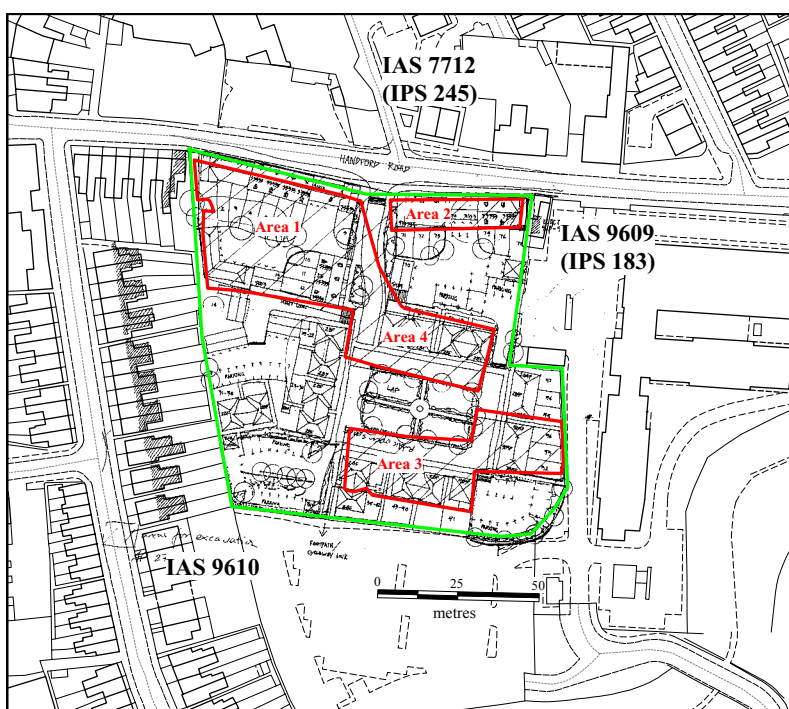
A condition of the planning consent required that the applicant provide for a programme of archaeological works which, in this case, involved the open area excavation of approximately 4,600 square metres of the site (just under half of its total area).

A Brief and Specification outlining the scope of this excavation (Appendix I) was written by the Conservation Team of Suffolk County Council's Archaeological Service (hereafter SCCASCT).

Subsequently, the Field Projects Team of Suffolk County Council's Archaeological Service (hereafter SCCASFPT) provided an acceptable Method Statement and Risk Assessment (Appendix II) and were commissioned by the developer, J. S. Bloor (Sudbury) Ltd., to undertake the archaeological works.

### 1.3 Archaeological & Historical Background

The perceived archaeological potential for the site was based primarily on the previously identified archaeology in the immediate vicinity (Fig. 2) and the results of an earlier archaeological evaluation on the site undertaken by SCCASFPT for a prospective developer (Boulter, 1997). In addition, the Handford Road is thought to



**Fig. 2** 1:2,500 scale map showing the previously known archaeology within the immediate vicinity of the site & the location of the excavated trenches in relation to the proposed development

be a route of some antiquity, possibly dating back to the Late Saxon period or, arguably, even earlier.

Prior to the evaluation of 1997, the known archaeology included finds recovered in 1985 during metal detecting on the British Telecommunications site (IPS 183, IAS 9609, TM 1545 4455) immediately to the east. The finds included thirty-four Roman coins, Roman and medieval metalwork and a scatter of Roman pottery.

A further scatter of Roman pottery was recovered from a building site on the eastern side of Cullingham Road in 1989 (IAS 9610, TM 1525 4446) the dating for which suggested that the activity associated with the site spanned the whole of the Roman period.

In addition, Roman pottery of 1<sup>st</sup> to late 2<sup>nd</sup> century date was recovered during a Watching Brief undertaken in 1992 on a housing development adjacent to the Three Jolly Sailors Public House (IPS 245, IAS 7712, TM 1533 4462).

The distribution of this Roman material clearly suggested that the ex-Firmin site was central to a significant area of Roman settlement and activity which appeared, unusually, to include artefactual evidence dating from the whole of that period.

In 1997, prospective purchasers, in order to ascertain the archaeological implications of their proposed development, commissioned SCCASFPT to undertake an Archaeological Evaluation involving the excavation of two trial-trenches (Boulter, 1997).

The results of the evaluation confirmed the presence of significant Roman archaeological deposits including ditches of 1<sup>st</sup> and 2<sup>nd</sup> century date with later Roman material recovered primarily from a buried soil and the base of the medieval/post-medieval plough soil. In addition, the presence of single sherds of handmade Early Saxon pottery and Middle Saxon Ipswich Ware hinted at later phases of activity on the site as did a few sherds of medieval wares.

## 1.4 The Aims of this Report

The aim of this report is to assess the archaeological potential of the archaeological information recovered from the excavation. This will inform SCCASCT regarding the scope for further analysis, identifying the level at which the project will be taken (publication, archive etc.) and ascertain the resources needed to complete these additional works.

## 2. Methodologies

### 2.1 Fieldwork

All topsoil stripping was carried out using a 360° mechanical excavator or JCB, both equipped with toothless ditching buckets to give a good clean cut. Initially, overburden and topsoil was removed to a level within c.0.2 metres above the naturally occurring sand and gravel subsoil. The material that was left represented either a genuine buried soil of some antiquity, primarily towards the north-west corner of the site, or the base of the existing topsoil which had been disturbed by ploughing. Following the collection of gridded finds samples from this layer, the remaining overburden was stripped down to the surface of the naturally occurring subsoil.

The excavation was undertaken in four separate stages which, for the purposes of this report, will be known as Areas 1-4 (Fig. 2). This is *contra*-Loader (Appendix II, Figure 1) where the individual trenches are shown as Area 1 and Areas 2a, 2b and 2c.

#### 2.1.1 Sample Squares

A 10 metre grid was imposed on the site using an optical theodolite. This grid was further divided into 2 metre squares.

The surface of the site was subjected to a metal detector search with all of the finds located on a 1:100 scale plan.

Modern features (drain runs, wall footings, stanchion bases etc.) were also recorded on the 1:100 scale plan along with archaeological features that were visible at that level.

A ten-bucket sample was taken from each 2 metres by 2 metres square and passed through a 1 centimetre mesh sieve. Where only a partial square was available, due to the presence of obviously modern intrusive features or restrictions caused by the edge of the site, the number of bucket samples was recorded. All sampled squares were allocated a context/OP (Observed Phenomena) number within a '*unique continuous numbering system*' under the SMR (Sites and Monuments Record) code IPS 280.

An on-site judgement was made as to the purity of the material recovered from each sample square and recorded as part of the contextual information.

### **2.1.2 Main Excavation**

After the second phase of soil-stripping, the 10 metre grid was re-established across the site using the optical theodolite.

Features and their stratigraphic elements were allocated context/OP numbers within a '*unique continuous numbering system*' under the SMR (Sites and Monuments Record) code IPS 280. The excavated fills were passed through a 1 centimetre mesh sieve and all the recovered artefactual evidence was retained.

Excavated sections and the site plan were drawn in pencil on plastic drafting film at scales of 1:20 and 1:50 respectively. Where significant or complicated features were encountered, additional plans were drawn at a scale of 1:10 or 1:20.

Section strings were related to Ordnance Datum from temporary benchmarks transferred to the site from a benchmark at 5.02 metres OD on the north side of Handford Road.

The surface of the features and upcast spoil was subjected to a metal detector search. Selected feature fills were retained as bulk soil-samples for palaeoenvironmental analysis. In addition one monolith sample was taken from a linear depression.

Waterlogged timbers were retained wrapped in cling-film to maintain a suitably wet environment to prevent desiccation.

A full photographic record (monochrome prints, colour slides & some digital shots) was made.

## **2.2 Post-Excavation**

The methodologies described in this section cover the general post-excavation work. More specific methodologies employed by specialists are included in the relevant sections of the report.

Finds assemblages were processed by in-house staff. Quantification and identification was carried out and the information input onto computer database, using Microsoft Access97 software (Appendix IV). Where necessary, external specialists were commissioned to provide assessments of certain categories of artefact/material (animal bone, metal working slag, waterlogged timbers {both technological & dendrochronological assessments} & worked flint). Other materials were assessed by in-house staff.

Bulk soil samples were sent for palaeoenvironmental assessment, the results of which appear as Section 3.4.2 of this report. A full list of the contexts from which soil samples were taken is presented as Appendix VI. In addition a monolith soil sample taken from a linear depression was analysed (see section 3.3).

The 1:50 and 1:100 scale site plans were digitised, in-house, on a CalComp Drawing Board III A1 digitising tablet and Mapinfo (version 6.5) software.

Contextual information was input onto computer database using Microsoft Access97 software (Appendix III).

The colour slides, monochrome prints and digital shots taken during the excavations have been integrated with Suffolk County Council's Archaeological Service Photographic Archive under the code numbers DSP 1-33, FHP 1-96, FHQ 1-96, FHR 1-96, FHS 1-96, FHT 1-96, FHU 1-96, FHV 1-96, FHW 1-96, FHX 1-96, FJA 1-27, colour slides, DSO 33-36, DSR 1-28, FJB 6-36, FJC 1-37, FJD 1-36, FJE 1-37, FJF 1-37, FJG 1-37, FJH 1-37, FJI 1-25, FJJ 1-37, FJK 1-37, FJL 1-37, FJM 1-37, FJN 1-37, FJO 1-37, FJP 1-37, FJQ 1-36, FJR 1-25, FJS 1-37, FJT 1-37, FJU 1-25, FJV 1-37, FJW 1-37, FJX 1-37, FJY 1-37, monochrome prints and FKD 30-96, FKE 1-30, for the digital shots (this list includes evaluation photographs).

### 3. Results

#### 3.1 Stratigraphic/Structural Evidence

##### 3.1.1 Factual Data

##### 3.1.1.1 Introduction

Section 3.1 generally relates to the stratigraphic and structural evidence, but has also been informed by the preliminary artefactual dating.

During the evaluation and excavation, Context/OP numbers were used between 0001 and 4065. A breakdown of the allocated numbers is provided in Table 1. A full context list appears as Appendix III of this report.

Description of Context	Total No. of OP's	Range of OP numbers
<b>1997 Evaluation:</b> Features & their Stratigraphic Elements	55	0001-0055
<b>1997 Evaluation:</b> Small Finds	22	0100-0121
<b>2003 Excavation:</b> Sample Squares	843	0203-0213, 0218-0232, 0235-0237, 0240, 0243-0246, 0249-0251, 0254-0260, 0263-0264, 0267-0272, 0275-0280, 0282-0283, 0287-0288, 0294, 0297-0299, 0303-0307, 0309-0316, 0318-0325, 0328-0465, 0467-0598, 2264-2400, 2433-2550, 2623-2809, 2810-2847, 4031-4043
<b>2003 Excavation:</b> Features & their Stratigraphic Elements	2022	0201-0202, 0214-0217, 0233-0234, 0238-0239, 0241-0242, 0247-0248, 0252-0253, 0261-0262, 0265-0266, 0273-0274, 0281, 0284-0286, 0289-0293, 0295-0296, 0300-0302, 0308, 0317, 0326-0327, 0466, 0599-1000, 2001-2263, 2401-2432, 2551-2621, 2802-2809, 2848-4030, 4044-4065
<b>2003 Excavation:</b> Small Finds	788	1001-1788
<b>Not Allocated</b>	335	0056-0099, 0122-0200, 1789-2000

**Table 1:** Breakdown of Allocated OP/Context Numbers

A series of plans and section drawings were generated during the excavation phase of the project. The 1:100 scale plans relating to the sieved squares and the 1:50 scale site feature plans have already been processed (digitised) for use during the assessment phase of the project. There are, however, a number of A1 plastic drafting sheets with sections drawings and 1:10 and 1:20 scale detailed plans. These will need to be inked as part of the archive. A full list of plans and section sheets is listed in Table 2 along with the minimum amount of further work required to form the site archive.

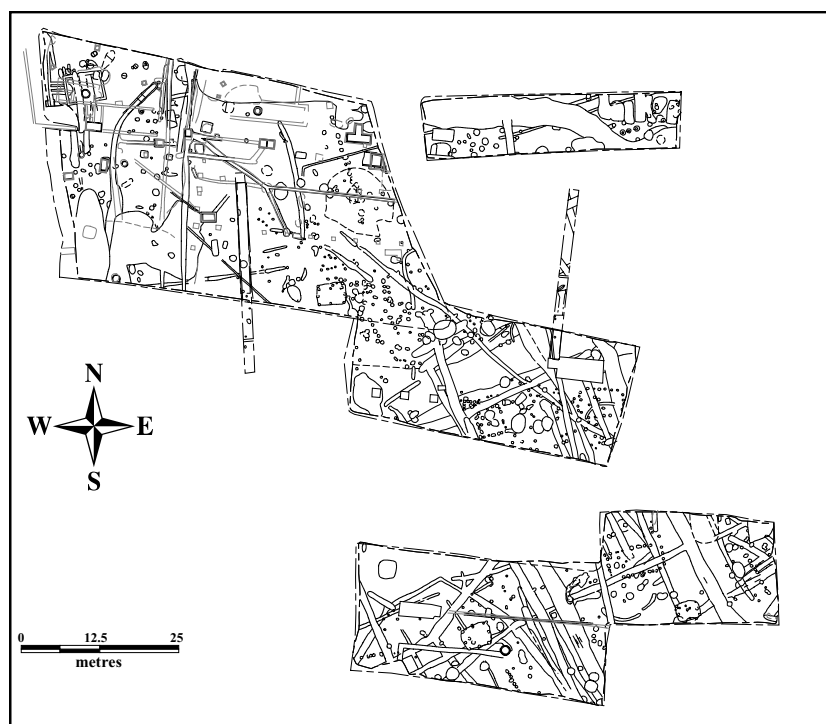
**N.B.** Partial sheets have been added together in the calculations to give an equivalent number of full A1 sheets.

Description	No. of Sheets	Work Required to Archive Level
1:100 scale plans (sieved sample squares)	4 A1 sheets	Digitised, no further work necessary to archive level
1:50 scale site plans	9 A1 sheets	Digitised, some phasing work completed, no further work necessary to archive level
1:20 scale plan (SFB 0699)	1 c.A4 sheet	Will need inking to archive standard
1:10 scale plan (oven 3405)	1 A1 sheet	Will need inking to archive standard
1:20 section drawings	9.5 A1 sheets	Will need inking to archive standard

**Table 2:** List of Plans & Section Sheets

### 3.1.1.2 Provisional Site Phasing

At this 'assessment' stage of the project the site phasing must be considered to be provisional as further analysis of the stratigraphy and artefactual evidence is likely to lead to tighter dating and as a consequence, better-defined phasing. A summary of the provisional site phasing appears in Table 3 while a site plan showing all the recorded features is presented as Figure 3.



**Fig. 3** 1:1,250 Scale Site Plan (all features)

Ditches have primarily been dated from the artefactual evidence recovered from their fills which essentially relate to the redundancy of the feature rather than representing their period of use. Due regard has also been given to the presence of intrusive material from later periods.

In addition, residuality was found to be a major problem on the site.

This was particularly evident with the large number of pits and miscellaneous post-holes with spot-dates suggesting a Roman date. Given their similarity to and juxtaposition with more securely dated Early Anglo Saxon features, it is deemed more likely that they were generated during the Early Anglo Saxon occupation of the site. However, if not forming part of a typologically distinctive structure, such as a weak cornered building, then their positive inclusion in the Early Saxon phase is impossible. On that basis, a degree of caution should be exercised when working with the Roman feature totals. One aspect of the subsequent analysis of the Roman pottery will focus on the likely residuality of feature assemblages by studying various factors such as abrasion and average sherd size. On the same premise, it is also likely that the majority of the undated pits and post-holes, particularly those with a uniform dark grey/brown fill located within the groups close to the Early Saxon buildings, are also of that period.

Period/Phase	Basis for Dating	Features
<b>I. Prehistoric</b>		
I.a. Neolithic (c.4500 – 2500 BC)	Artefactual evidence	None, all finds were residual in later features, from sieved squares or unstratified contexts
I.b. Bronze Age (c.2500 - 650 BC)	Artefactual evidence	None, finds limited to a single residual pottery sherd in SFB 0285
I.c. Iron Age (c.650 BC – 43 AD)	Artefactual evidence	None, all finds of earlier & middle Iron Age were residual in later features, from sieved squares or unstratified contexts. Late Iron Age (AD) have been included with the Early Roman period.
<b>II. Late Iron Age &amp; Roman</b>		
II.a. Late Iron Age & Roman (c.1 <sup>st</sup> – E.2 <sup>nd</sup> century AD)	Artefactual & stratigraphic evidence	<b>Ditches:</b> 2890, 2905, 2909, 2911, 2913, 2967/3006/3711, 3012, 3014, 3022, 3024/3856, 3032, 3037, 3109, 3125/3158/3539, 3127, 3129, 3131, 3138, 3175, 3177/3198, 3179, 3188, 3215/3468, 3262, 3399/3879, 3427, 3457, 3476, 3503, 3537, 3594, 3636, 3711, 3729 ( <b>Total 34</b> ) <b>Pits:</b> 0233, 2107, 3095, 3097, 3334, 3393, 3412, 3493, 3619, 3959, 3961, 3989 ( <b>Total 12</b> ) <b>Post-holes:</b> 0677, 0911 ( <b>Total 2</b> ) <b>Gullies/Slots:</b> 0781/0926/2105/2197, 2121/2206/2208, 3072/3216 ( <b>Total 3</b> ) <b>Trackway:</b> 3299/3879 ( <b>Total 1</b> ) <b>Well:</b> 3218 ( <b>Total 1</b> )
<b>Total: 53</b>		
II.b. Roman (M.2 <sup>nd</sup> -M.3 <sup>rd</sup> century AD)	Artefactual & stratigraphic evidence	<b>Post-holed enclosure:</b> 0861 ( <b>24 post-holes</b> ) <b>Kiln:</b> 3952 ( <b>Total 1</b> ) <b>Pits:</b> 0601, 0922, 2002, 2036, 2915, 3068, 3402, 3673, 3675, 3870 ( <b>Total 10</b> ) <b>Ditches:</b> 0687/0937/0989, 0872, 0930, 0973, 2882, 2892/3758/3773, 3020/3643, 3270, 3271, 3272, 3345, 3599, 3813, 4062 ( <b>Total 14</b> ) <b>Post-holes:</b> 0720, 0722, 0949, 0997, 2874 ( <b>Total 5</b> ) <b>Redundancy of Well 3218</b>
<b>Total: 54</b>		
II.c. Roman (c.L.3 <sup>rd</sup> – E.5 <sup>th</sup> century AD)	Artefactual & stratigraphic evidence	<b>Pits:</b> 0265, 0747, 0900, 0983, 2067, 2149, 2154, 2169, 3111, 3395, 3665, 4005 ( <b>Total 12</b> ) <b>Post-holes:</b> 0979, 2191, 2199, 2203, 2569, 2602, 2864, 3029, 3305, 3653, 3683, 3765 ( <b>Total 12</b> ) <b>Layer:</b> 0261 ( <b>Total 1</b> )
<b>Total: 25</b>		
II.0. Roman unspecified date	Artefactual & stratigraphic evidence	<b>Post-holes:</b> 0247, 0735, 0803, 0852, 0913, 0960, 2004, 2019, 2031, 2059, 2099, 2164, 2186, 2214, 2216, 2218, 2220, 2224, 2226, 2230, 2234, 2256, 2401, 2425, 2427, 2557, 2559, 2563, 2860, 2862, 2894, 2898, 2963, 3237, 3303, 3307, 3328, 3379, 3381, 3383, 3389, 3486, 3499, 3515, 3529, 3573, 3602, 3617, 3638, 3647, 3661, 3703, 3797, 3807, 3809, 3903, 3907, 3920, 3946, 3949, 3987, 4023 ( <b>Total 62</b> ) <b>Slots:</b> 2236, 3705, 3963 ( <b>Total 3</b> ) <b>Pits:</b> 0599, 0652, 0704, 0718, 0795, 0904, 0932, 2189, 2210, 2968, 2970, 3077, 3079, 3230, 3347, 3455, 3460, 3496, 3522, 3524, 3559, 3628, 3678, 3708, 3733, 3918, 3999, 4001, 4003, 4019, 4027 ( <b>Total 31</b> ) <b>Ditches:</b> 2907, 3136, 3387, 3397, 3811, 4060 ( <b>Total 6</b> )
<b>Total: 102</b>		

Table 3: Provisional Site Phasing (continued on next page)



<b>III. Anglo Saxon</b>		
III.a. Early Anglo Saxon (c.5 <sup>th</sup> - E.7 <sup>th</sup> centuries)	Artefactual & stratigraphic evidence	<b>Post-holed buildings:</b> 2976, 3433, 4022, 4064, 4065 ( <b>Total 5</b> ) <b>SFB's:</b> 0285, 0699, 2554, 3001, 3002 ( <b>Total 5</b> ) <b>Oven:</b> 3405 ( <b>Total 1</b> ) <b>Pits:</b> 0214/0639, 0661, 0681, 0683, 0695, 0985, 2130, 2171, 2175, 3070, 3074, 3220, 3337, 3343, 3372, 3480, 3484, 3526, 3551 ( <b>Total 19</b> ) <b>Post-holes not assigned to a formal structure:</b> 0689, 0919, 3241, 3555, 3605, 3740 ( <b>Total 6</b> ) <b>Misc. features:</b> 2006, 2173 ( <b>Total 2</b> )
<b>Total: 38</b>		
III.b. Middle Saxon (c.650-850)	Artefactual evidence	Three unstratified sherds of Ipswich Ware were recovered from sieved sample squares. There was also limited small find evidence.
III.c. Late Saxon (c.850-1000)	Artefactual evidence	Single sherd of Thetford Ware identified as an intrusive find in the top spit of SFB 3002. There was also limited small find evidence.
<b>IV. medieval</b> (c.1000-1480)	Artefactual & stratigraphic evidence	<b>Ditches:</b> 2061/2903/2938/3429, 2131 ( <b>Total 2</b> )
<b>Total: 2</b>		
<b>V. post-medieval</b>		
V.a. 1480-L.19 <sup>th</sup> century	Artefactual & stratigraphic evidence	<b>Buildings:</b> 0637 ( <b>Total 1</b> ) <b>Ditches/linear features:</b> 0241, 0612, 0620, 0622/0777, 0655, 0673/0714, 0776, 0809, 0811, 0812, 0813, 2616/3274/3749 ( <b>Total 12</b> ) <b>Pits:</b> 0216, 0702, 2038, 2040, 2112, 2115, 2117, 2119, 2123 ( <b>Total 9</b> )
<b>Total: 22</b>		
V.b. L.19 <sup>th</sup> & 20 <sup>th</sup> century	Artefactual, stratigraphic & documentary (map) evidence	<b>Buildings (walls, stanchions, slabs etc.):</b> 0202, 0841, 0844, 2600, 3133, 3134, 4051, 4053, 4054, 4055 ( <b>Total 10</b> ) <b>Drains, pipes, cables, manholes, soakaways &amp; wells:</b> 0644, 0645, 0670, 0685, 0711, 0729, 0730, 0808, 0814, 0815, 0817, 0818, 0819, 0820, 0821, 0822, 0824, 0825, 0826, 0827, 0828, 0829, 0834, 0835, 0839, 0840, 2021, 2022, 3186, 3501, 4046, 4056 ( <b>Total 32</b> ) <b>Pits:</b> 0252, 0273/0649, 0290/0295, 0292/0647, 0326, 0606, 0618, 0624/0653, 0626, 0629, 0668, 0671, 0716, 0727, 0731, 0732, 0733, 0739, 0758, 0791, 0793, 0797, 0807, 0810, 0816, 0823, 0830, 0832, 0836, 0838, 0842, 0845, 0870, 0902, 0924, 0928, 0944, 0946, 0991, 0993, 2044, 2596, 2598, 2612, 2884, 2901, 2917, 2947, 3093, 3113, 3149, 3156, 3200, 3377, 3611, 3668, 4047, 4049, 4058 ( <b>Total 59</b> ) <b>Post-holes:</b> 0603, 0608, 0610, 0632, 0634, 0641, 0238/0675, 0697, 0760, 0774, 0783, 0846, 0848, 3422 ( <b>Total 14</b> ) <b>Misc.:</b> 0616, 0617, 0717/0831, 0962, 3050, 3451 ( <b>Total 6</b> )
<b>Total: 121</b>		
<b>0. undated</b>	None	<b>Pits:</b> 0691, 0693, 0785, 0893, 0908, 0916, 0935, 0942, 0964, 2023, 2029, 2046, 2125, 2127, 2179, 2592, 2614, 2802, 2876, 3213, 3341, 3349, 3364, 3462, 3464, 3655, 3687, 3769, 3771, 3847, 3954, 3967, 3997, 4016, ( <b>Total 34</b> ) <b>Post-holes:</b> 0666, 0679, 0712, 0737, 0750, 0764, 0779, 0789, 0799, 0801, 0805, 0850, 0859, 0862, 0864, 0866, 0868, 0874, 0876, 0878, 0880, 0884, 0886, 0888, 0890, 0896, 0898, 0906, 0940, 0951, 0953, 0958, 0966, 0968, 0981, 0987, 0995, 0999, 2008, 2010, 2012, 2014, 2016, 2025, 2027, 2029, 2033, 2053, 2055, 2074, 2076, 2078, 2080, 2082, 2084, 2086, 2088, 2091, 2093, 2095, 2097, 2101, 2141, 2143, 2158, 2161, 2182, 2184, 2232, 2240, 2251, 2254, 2258, 2260, 2403, 2407, 2419, 2429, 2561, 2565, 2567, 2571, 2573, 2577, 2579, 2581, 2584, 2586, 2588, 2604, 2606, 2608, 2610, 2618, 2620, 2807, 2848, 2878, 2880, 2886, 2888, 2896, 2932, 3027, 3044, 3046, 3048, 3052, 3054, 3081, 3166, 3168, 3170, 3172, 3193, 3195, 3235, 3239, 3264, 3266, 3268, 3281, 3287, 3289, 3291, 3309, 3311, 3314, 3316, 3330, 3332, 3352, 3354, 3356, 3358, 3360, 3362, 3385, 3391, 3410, 3414, 3418, 3420, 3466, 3471, 3482, 3513, 3517, 3519, 3531, 3541, 3543, 3545, 3547, 3549, 3553, 3562, 3564, 3566, 3568, 3571, 3580, 3585, 3607, 3640, 3659, 3671, 3681, 3685, 3691, 3693, 3713, 3721, 3723, 3725, 3751, 3763, 3767, 3775, 3777, 3779, 3795, 3815, 3817, 3819, 3821, 3823, 3825, 3827, 3829, 3831, 3841, 3843, 3845, 3849, 3851, 3853, 3858, 3860, 3862, 3864, 3866, 3868, 3872, 3881, 3883, 3899, 3905, 3909, 3911, 3914, 3925, 3931, 3938, 3940, 3942, 3944, 3969, 3977, 3983, 3985, 3992, 4025, 4044, ( <b>Total 224</b> ) <b>Misc.:</b> 0201, 0466, 0700/0745, 0833, 0975, 2066, 2090, 2145, 2160, 2202, 3510, 3578, 3634, 3877, 3885, 3973, ( <b>Total 16</b> ) <b>Sieved Squares:</b> 4031 ( <b>843 numbered squares</b> )
<b>Total: 1117</b>		

Table 3: Provisional Site Phasing



It should also be noted that the descriptive term post-hole and pit have generally been applied on the basis of size rather than evidence of their function, with features exhibiting a diameter of *c.*0.5 metres or less described as post-holes and greater than 0.5 metres called pits. Exceptions to this rule occur only when features with diameters in excess of 0.5 metres can positively be assigned to a building or structure, a situation which is taken as confirmation of its function as a post-hole.

### **3.1.1.3 Descriptions by Phase**

#### **Period I.a. Neolithic (*c.*4500 - 2700 BC)**

No discrete features of Neolithic date were positively identified with all of the material (mostly worked flint with a few pottery sherds) either residual in later features or recovered from the sieved subsoil squares.

#### **Period I.b. Bronze Age (*c.*2500 - 650 BC)**

Evidence for this period was limited to a single intrusive pottery sherd in Period III.a. SFB 0285.

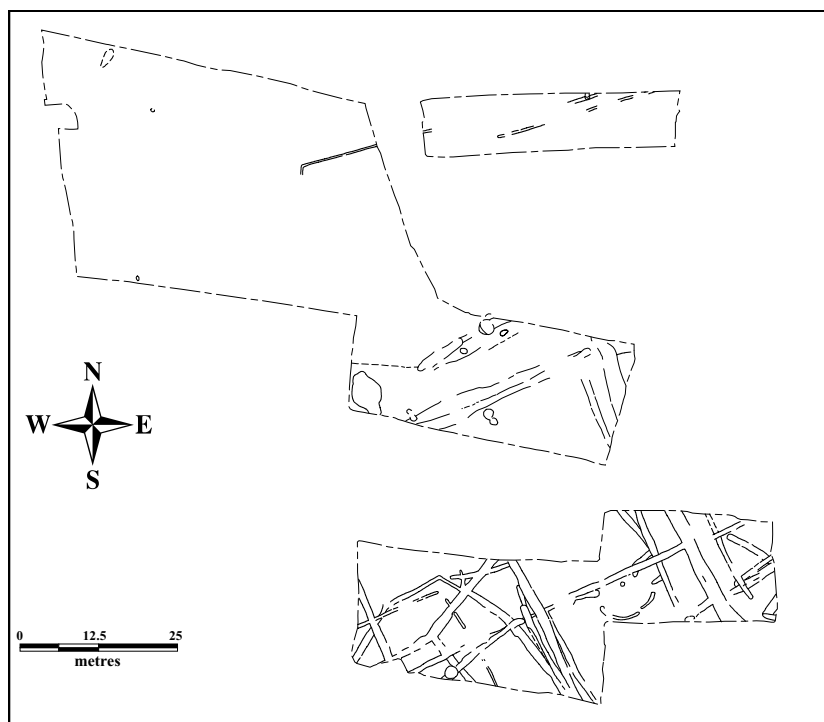
#### **Period I.c. Iron Age (*c.*650 BC - 43 AD)**

No features were attributed to the earlier and middle Iron Age and the finds were limited to two sherds of pottery residual in later, Late Iron Age/Roman, contexts. A few handmade Late Iron Age sherds were identified which suggest a low level of activity in the 1<sup>st</sup> century BC, but again, no discrete features were identified.

#### **Period II.a. Late Iron Age/Roman (*c.*1<sup>st</sup> - E. 2<sup>nd</sup> century AD)**

A total of fifty-three features were attributed to this phase (Table 3 & Fig. 4) based primarily on artefactual and stratigraphic evidence. The vast majority of these features were concentrated towards the southern end of the site. The artefactual

evidence suggests that features assigned to this phase range in date from late 'pre-conquest' Iron Age through to the beginning of the 2<sup>nd</sup> century AD.



**Fig. 4** 1:1,250 Scale Site Plan (Period II.a. features)

#### ***Ditches***

All of the ditches were located within the southern half of the site forming a complex immediately to the south of a contemporary trackway (3299) (Plate 1) and associated well (3218) (Plate 2). The ditches were clearly

not all contemporary, but inconclusive stratigraphic relationships and relatively undiagnostic artefactual evidence has led to the broad phasing presented at this stage of the project. Further analysis will almost certainly lead to the recognition of sub-phases within the Late Iron Age and Early Roman Period. However, the general trend exhibited by this period appeared to involve the formalisation of a somewhat irregular set of ditched enclosures/fields into a more organised rectilinear system orientated north-north-west to south-south-east and west-south-west to east-north-east.

The ditches varied in their dimensions and general character ranging from only 0.2 metres wide and 0.1 metre deep to *c.*1 metre wide and *c.*0.6 metres deep. A number of the ditches, particularly those orientated from north-north-west to south-south-east within the more formally arranged system, exhibited prominent re-cuts on the same or similar alignment.

### ***Gullies/Slots***

Three features described as gullies/slots, due to their size and near vertical sides, were recorded.

Two of these (0781/0926/2105/2197 & 2121/2206/2208) were orientated east-north-east to west-south-west and were located in an otherwise empty area towards the north-east corner of the site. These features were almost certainly contemporary and while divorced from the ditch concentration to the south, share the same general alignment. Both features had a maximum width of 0.3 and depth of 0.3 metres, usually steep sided with a rounded bottom and a brown silty sand fill. The function of these features was unclear.

The third gully/slot (3072/3216) was located towards the southern edge of the site and comprised two curving components with a maximum width of 0.3 metres and depth of 0.2 metres with a fill of brown silty sand. The function of this feature was unclear.

### ***Trackway***

The Period II.a. ditch complex was respected on its northern side by a *c.*7 metres wide, shallow (maximum depth 0.3 metres) linear depression (3299) (Plate 1). The fill of this feature comprised predominantly of homogenous light brown sand.



**Plate 1:** Area 4, Roman Ditches & Trackway

Originally thought to represent a natural, possibly periglacial, feature, the presence of a significant quantity of finds proved this to be not the case. Its juxtaposition to the ditch system to the south and its apparent relationship with well (3218) lead to its interpretation as a trackway almost certainly leading towards the aforementioned well. Its inclusion in Period II.a. was almost exclusively based on its stratigraphic

relationships with Period II.b. features as the finds included later Roman material that must be considered to be intrusive. A monolith sample and bulk soil samples were taken to facilitate soil analysis and environmental analysis (sections 3.3.1 & 3.4.2 of this report, respectively).

### **Well**

Initially thought to be a Early Saxon Sunken Featured Building (SFB), well 3218 was represented at the surface by a 4.5 metres in diameter circular feature with two protruding lobes to the north-west and south-east. Manual excavation was undertaken within the north-west quadrant of the feature down to a depth of 1.4 metres, that which could safely be managed without recourse to shoring. The lobe on the north-west side was found to be 0.6 metres in depth with a stepped profile. The function of this and the similar feature on the opposite side is unclear, but it seem likely that it was either to help in the construction of the well or performed a role during its use. The fill of the lobe was continuous with one of the main well fills which suggests that



**Plate 2:** Roman Well 3218

it was open as a feature prior to the redundancy and filling of the feature, although any removal of well timbers would have caused disruptions to the surrounding fill.

A JCB mechanical excavator was used to excavate the waterlogged base of the well down to a depth of 2.3 metres (Plate 2). While it was impossible to tell whether this was the bottom, timbers were pulled up by the machine bucket at this juncture.

The fill of the well exhibited clear stratification with a homogenous very dark grey/brown upper fill with a maximum thickness of 0.8 metres overlying a series of lighter brown, sandier stonier components, with the basal layers comprising relatively clean sands and gravels.

The inclusion of the well in Period II.a. was based on a combination of factors as the artefactual evidence was not straightforward. The dark loam upper fill almost certainly represented a cone of subsided material derived from the overlying occupation layer which included material from throughout the Roman Period and also Early Anglo Saxon finds. However, the ceramic finds from the lowermost machined fills suggested that the well may have been in use into the 2<sup>nd</sup> century with the structural timbers themselves indicating an early Roman date (section 3.2.1.6).

### **Pits**

Twelve pits have been attributed a Period II.a. date based almost exclusively on artefactual evidence. It is likely that a number of these could be of later date, possibly even Early Saxon, but included only residual finds in their fills derived from adjacent Roman ditches. The majority of the pits were located within the ditch complex towards the southern end of the site, although there were isolated examples within the remainder of the excavated area. One of these (2107), which cut the Period II.a.

gully/slot 0781/2105, was full of charcoal and may have been part of kiln or oven, the majority of which lay outside the excavation.

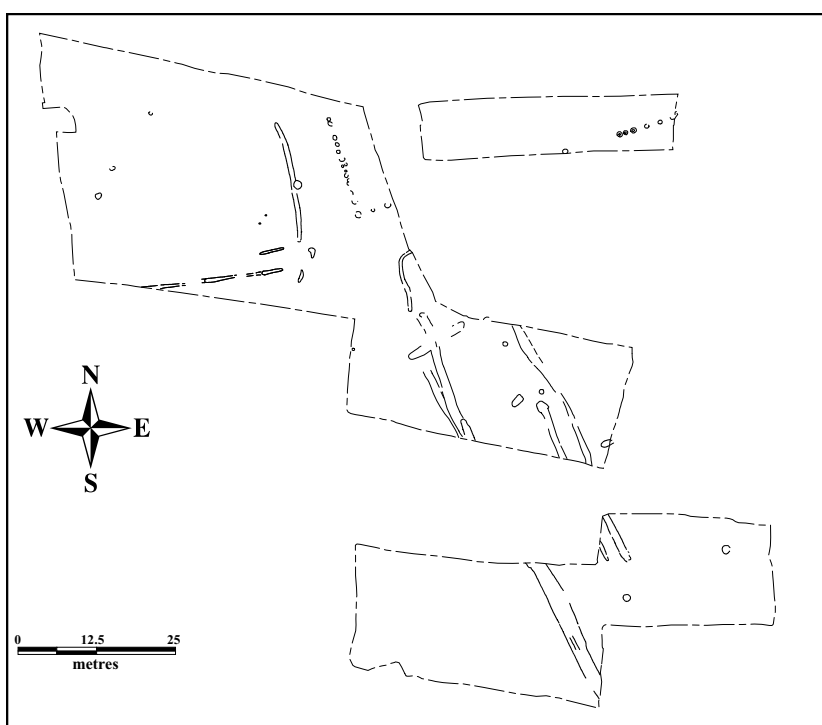
Generally, the pits were small, less than 1 metre in diameter with depths not in excess of 0.6 metres, although one, 3619, was 2 metres in diameter and 0.8 metres deep.

### **Post-holes**

Two isolated post-holes (0677 & 0911) were included in this phase purely on artefactual evidence that, similarly to some of the pits, may represent residual material with the features dating to a later period.

### **Period II.b. Roman (c.M.2<sup>nd</sup> - M.3<sup>rd</sup> century AD)**

A total of fifty-four features were attributed to this phase based on a combination of stratigraphic and artefactual evidence (Table 3 & Fig. 5). In general terms, the area of



activity appears to have expanded northwards during this period which has been given a date range of middle 2<sup>nd</sup> century through to the middle of the 3<sup>rd</sup> century. While the overall trends/alignments of Period II.a. have been maintained, one of the key factors for identifying this as a discrete phase is the apparent redundancy of track 3299 and well 3218. Evidence for this is provided by north-north-west to south-south-east

**Fig. 5** 1:1,250 Scale Site Plan (Period II.b. features)

orientated elements of the earlier ditch system now cutting through the trackway. The dating for the end of this phase is based entirely on artefactual evidence with a significant lack coinage of the middle-later 3<sup>rd</sup> century suggesting a hiatus in the activity on the site at this time (section 3.2.2.3). This interpretation may later, during the analysis stage of the project, be reinforced by other artefactual evidence.

### **Ditches**

Fourteen ditches and ditch re-cuts were included in Period II.b. based on a combination of artefactual and stratigraphic evidence. All of the ditches maintain and expand upon the later orientation of the Period II.a. ditch complex, although the east-north-east to west-south-west components towards the southern end of the site have completely disappeared leaving only a series of re-cuts on a north-north-west to south-south-east alignment. These are complimented by additional ditches which, if contemporary, appear to divide the site into a series of tracks or droveways running

between enclosed areas or fields, a pattern which is continued by post-holed enclosure 0861.

The ditches themselves varied considerably in both their character and dimensions. Those to the north-west (0687, 0930 & 0973) were only 0.3-0.5 metres in width with depths varying between 0.1 and 0.3 metres, while those to the south-east, including 3345 were up to 1 metre in width with depths reaching 0.5 metres. Generally the fills comprised relatively homogenous brown silty sand and gravel. However, the butt-end of one short section of ditch (2882) had been used to dump a primary deposit of metalworking waste (see section 3.2.1.5).

### ***Post-Holed Enclosure***

Towards the north-east corner of the site two lines of post-holes were recorded which appeared to form the south-western corner of an enclosure measuring in excess of 55 metres from east-north-east to west-south-west and more than 20 metres from south-



south-east to north-north-west. Twenty four post-holes were located within the excavation area. A break in the line of post-holes at the northern end of the western side may represent an entrance.

Dimensions varied between 0.3 metres in diameter with a depth of 0.15 metres (2135) to 1 metre in diameter with a depth of 0.4 metres (2242). The larger post-holes, particularly those towards the eastern end of the southern side, exhibited

**Plate 3:** Roman Post-holed Enclosure

obvious post-pipes located centrally to the feature.

There is no obvious interpretation for this feature, although two groups of Period II.0. (unspecified Roman) and Period 0. (undated) post-holes located within the enclosure, close to its southern edge, may represent contemporary buildings or structures, as they were clearly different in character to the post-holes forming the Period III.a. (Early Saxon) buildings.

### ***Kiln***

A kiln was recorded running under the eastern edge of Area 4 with only its stoke-pit within the confines of the site. The pit was relatively small, measuring c.1.5 metres



on its long axis (north-east to south-west) and 1 metre across (north-west to south-east) with a maximum depth of 0.6 metres and exhibiting a gently curved profile. The fill comprised charcoal rich silty sand and included a large quantity of kiln lining and furniture. A relatively large quantity of pottery was recovered from the pit fill, which overwhelmingly suggested a mid-2<sup>nd</sup> to mid 3<sup>rd</sup> century date.

**Plate 4:** Roman Kiln 3952



The mouth of the vertical sided fire tunnel was visible in the side of the site and was recorded in section only (Plate 4). Its roof had clearly collapsed and lay as a distinctive layer over the charcoal rich sandy material which was thought represent the vestiges of the fuel used in the final firing of the kiln. The thick clay walls include large pebble sized flints in its fabric with a hard semi-vitrified surface giving way to c.2 centimetres of heat-reddening and then unaltered clay.

### ***Pits***

Nine pits were attributed to this phase based almost exclusively on artefactual evidence. These features varied in size and shape although the majority were circular. The largest (3675) measured 1.6 metres by 1 metre with a depth of 0.8 metres, while the smallest (3673) was 0.6 metres in diameter with a depth of 0.35 metres. Fills were generally fairly homogenous, comprising brown silty/loamy stony sand.

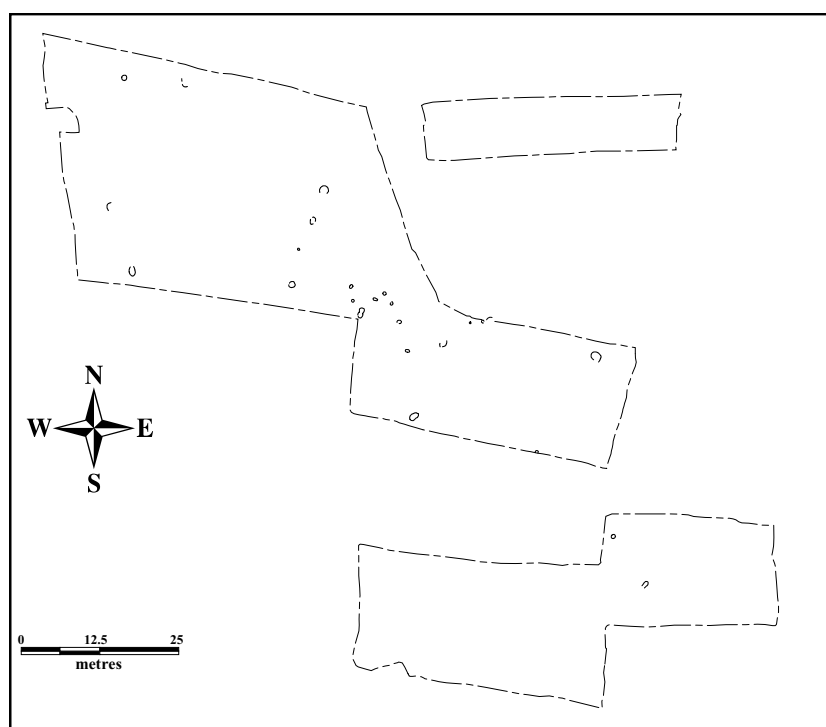
One pit that merits individual attention is 0922, a circular feature measuring 1.2 metres in diameter with a depth of 0.4 metres and a fill comprising mid grey/brown silty, stony sand. The otherwise unremarkable finds assemblage included the skull of a horse centrally placed within the feature and a ritual or specialised function for the feature cannot be ruled out.

Caution should again be exercised with these features regarding their dating, with the possibility that some contain only residual finds and actually date from a later period.

### ***Post-holes***

Five isolated post-holes were assigned to this phase based entirely on the limited artefactual evidence recovered from their fills. These finds may be residual with the features actually relating to a later period.

## **Period II.c. Roman (c.L.3<sup>rd</sup> - E.5<sup>th</sup> century AD)**



Twenty-five features were attributed to this phase based almost entirely on artefactual evidence (Table 3 & Fig. 6). The artefactual evidence suggests that activity on the site picked up again at the end of the 3<sup>rd</sup> century or beginning of the 4<sup>th</sup> century and possibly continued into the early 5<sup>th</sup> century. However, the character of this activity has clearly changed from that

**Fig. 6** 1:1,250 Scale Site Plan (Period II.c. features)

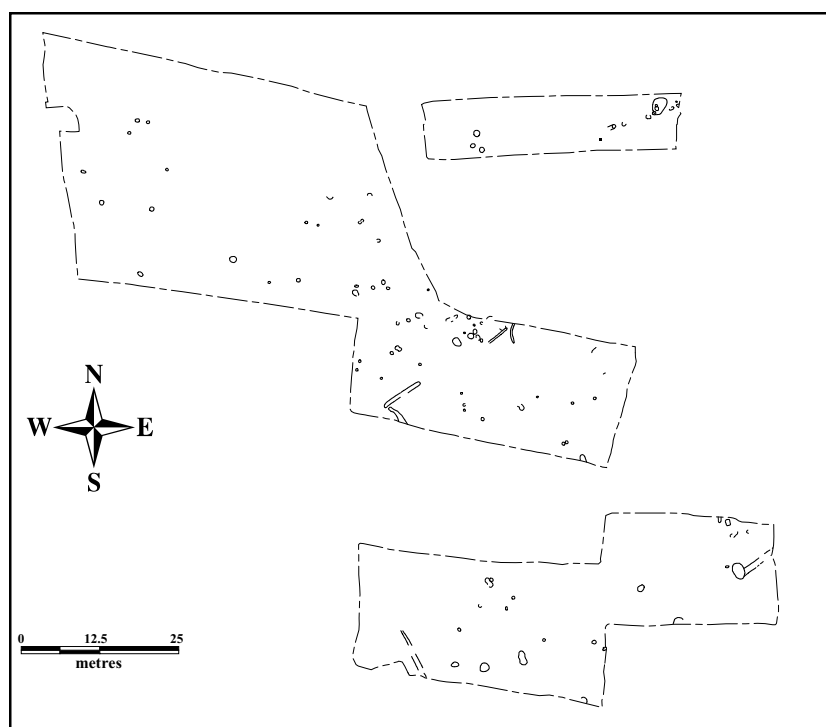
of the preceding period and while the quantity and quality of the artefactual evidence recovered from the sieved squares indicate the presence of high status buildings on the site, or in the immediate vicinity, there are relatively few features of this date. This evidence reinforces the possibility of there being a hiatus in activity on the site during the 3<sup>rd</sup> century during which time the defining features forming the Period II.b. organised landscape appear to have become redundant.

The features included in this phase comprised twelve pits, twelve post-holes and one layer. There were no ditches or obvious structures and buildings. While the spot-dates for these features suggest a Period II.c. date it seems likely that some of this material is residual, derived from the occupation layer and was introduced into later features.

Generally, the Period II.c. features were concentrated towards the central area of the site and comprised isolated post-holes or small pits with diameters of not more than 1 metre, depths not exceeding 0.5 metres, with fills of homogenous brown silty sand with occasional stones.

### Period II.0. Roman (unspecified date)

A total of one hundred and two features were assigned to Period II.0. based almost entirely on artefactual evidence, the inclusion of undiagnostic Roman finds in their



fills (Table 3 & Fig. 7). Of these, by far the most numerous were post-holes (sixty-two), with pits forming the second most common category (thirty-one). Similarly to the preceding phases, it is likely that a proportion of these features are of later date and contain only residual finds.

Period II.0. features were spread throughout the site, although a slightly higher

**Fig. 7** 1:1,250 Scale Site Plan (Period II.0. features)

concentration was identified within the central area immediately to the north of the Period II.a. trackway 3299.

### *Post-holes*

Most of the sixty-two Period II.0. post-holes were isolated, not forming part of any recognisable formal arrangement, although one line of features (2214, 2216, 2224, 2226, 2230, 2234 & slot 2236) internal to and parallel with the southern side of the

Period II.b. enclosure 0861 may represent one side of a building/structure. Diameters of features varied between only 0.2 metres (2218) and 1 metre (2563) with depths of 0.15 metre (2963) through to 0.4 metres (2563). Fills usually comprised relatively homogenous dark brown silty sand with occasional stones.

### ***Pits***

The majority of the thirty-one pits were small with diameters of less than 1 metre and depths of less than 0.5 metres, although 3230 measured 2.75 metres by 1.85 metres, but only had a maximum depth of only 0.3 metres. Fills tended to comprise mid-dark brown silty sand with occasional stones.

### ***Ditches***

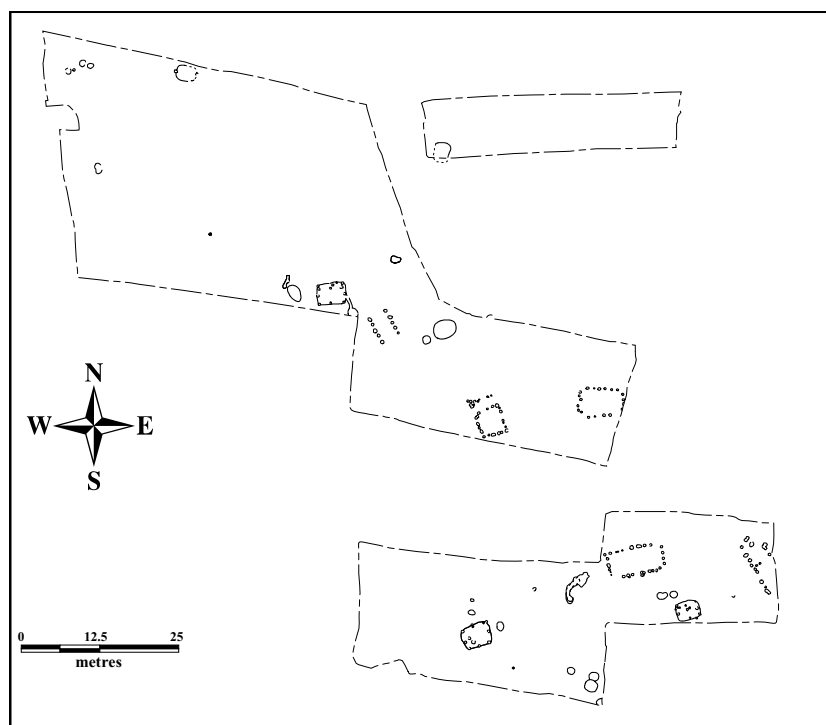
Six ditches were assigned an unspecified Roman, Period II.0 date. These were located within the same general area occupied by the Period II.a. and Period II.b. ditch complexes and it is likely that they also belong in these phases as they were similar in character and shared similar alignments with the more securely dated features.

### ***Slots***

Three slot-like features were included in this phase, one of which (2236) was associated with a line of post-holes. The other two (3705 & 3963) were located immediately north of Period II.a. trackway 3299. Slot 3705 was straight, 3.8 metres long, 0.3 metres wide with a depth of only 0.1 metres while 3963 was in excess of 3.5 metres long, describing a shallow curve, with a width of 0.3 metres and a depth of only 0.1 metres. The function performed by these features was unclear.

## **Period III.a. Early Anglo Saxon (c.5<sup>th</sup> - E.7<sup>th</sup> centuries)**

A total of thirty-eight features and multi-contextual structures were included in this phase based on artefactual, stratigraphic and typological evidence (Table 3 & Fig. 8).



**Fig. 8** 1:1,250 Scale Site Plan (Period III.a. features)

### ***Buildings***

Ten buildings or structures have so far been identified, although others will almost certainly be defined during the analysis stage of the project in areas of the site where large numbers of post-holes were recorded, often in dense groups with no apparent formal arrangement. The buildings could be divided into three basic categories: Halls, very well defined rectangular



structures constructed using earthfast posts, Sunken Featured Buildings (SFB's), with their distinctive pit-like component, and miscellaneous rectangular structures, also utilising earthfast posts, but usually smaller and generally less well defined than the Halls. However, the distinction between the two building types with earthfast posts was somewhat arbitrary as the miscellaneous structures identified at Handford Road were more 'Hall-like' in character than the miscellaneous structures recorded on similar sites such as West Stow (West, 1985, p.14) and Flixton Park Quarry (Boulter, forthcoming). A summary of each individual building's character and dimensions are presented in Table 4.

The different types of building were fairly evenly spread throughout the site and the restrictive nature of the excavated plots hampered the immediate detection of spatial relationships that would indicate the presence of discrete contemporaneous groups of structures. However, six buildings exhibited a similar east-north-east to west-south-west or west-north-west to east-south-east alignment with the remainder orientated north-north-west to south-south-east and north-north-east to south-south-west. None of the identified buildings encroached on the groundplan of any other structure, a relationship which would have been indicative of successive phases of building construction, although there was some evidence in both the post-holed buildings and SFB's for repair and possible alteration.

Building Type	Context No.	Length	Width	Depth	No. Post-holes	Notes
Hall	2976	9.0 m	4.5 m	-	c.26	ENE-WSW orientated, three weak corners. Best preserved of the Hall buildings. Evidence for repairs was provided by two double and one triple post-setting.
Hall	4022	7.0 m	c.4.0 m	-	c.19	WNW-ESE orientated, weak cornered, southern side not as distinct as the northern side.
Hall	4065	c.9.0 m	4.0 m	-	>19	NNW-SSE orientated, weak cornered, continues under eastern edge of the site, possible internal partition.
SFB	0285	-	2.5 m	0.30 m	2?	ENE-WSW orientated, badly truncated, only one end survived, but almost certainly a two-posted structure, probably c.3.5 m in length.
SFB	0699	4.6 m	3.4 m	0.25 m	8 + 3	ENE-WSW orientated, 8 post-holes around its edge with 3 more (all square) in a line internally towards the northern edge indicating a possible phase of alteration.
SFB	2554	c.2.5 m	c.4.5m	0.25 m	?	Possible SFB truncated by modern features, no post-holes seen in surviving section of feature.
SFB	3001	4.7 m	3.6 m	0.60 m	8	ENE-WSW orientated, largest of the SFB's, originally with 8 posts, but 4 other additional post-holes may indicate repair.
SFB	3002	3.8 m	3.0 m	0.40 m	2 + 9	ENE-WSW orientated, large post-hole at either end, a further 9 smaller post-holes recorded close to the edge of the pit may have provided additional support. Could, however, be associated with its function rather than part of its structure.
Misc.	3433	6.0 m or 4.0 m	4.0 m	-	c.26	NNW-SSE orientated, a series of c.24 post-holes define a relatively regular rectangle, although other adjacent & internal features may also be associated with the structure. Could also be interpreted as a smaller, 4 x 4 metres structure
Misc.	4064	4.5 m	3.5 m	-	10	NNW-SSE orientated, defined by two rows of 5 post-holes, no end posts.

**Table 4:** Summary of the Early Anglo Saxon Buildings

**Halls:** Three buildings of the general type that have been described at sites such as West Stow as "Halls" (West, 1985 p.112) were recorded (2976, 4022, 4065). The

generally accepted interpretation of these buildings suggests that each represents the living accommodation for a single family group.

Characterised by their rectangular shape and relatively closely spaced post-holes, the Halls varied in size with the smallest (4022) measuring 7.0 metres by 4.0 metres while the largest (2976) measured 9.00 metres by 4.5 metres (Plate 5).

All three exhibited weak corners, i.e. having no post-holes located at their corners with the weight of the roof supported by the side walls, a diagnostic characteristic of this type and date of building. The multiple post-settings on the south side of building 2976, rather than being indicative of repair, could represent reinforcing struts to provide extra stability for the wall. These may



**Plate 5:** Hall Building 2976

have formed an original part of the design or been inserted at a later date to reinforce a failing structure. There were also post-holes located within all three structures, but only in 4065 could they be positively linked to the building with any degree of certainty, appearing to form an internal partition. The positions of entrances were not obvious in buildings 4022 and



**Plate 6:** SFB 3001

4065, but larger gaps between the generally closely spaced post-holes on the north and south sides of 2976 suggests offset doorways at these locations. Most of the post-holes were relatively shallow, but this is likely to be the result of truncation by medieval and post-medieval ploughing, a process that may also have destroyed floor surfaces and other shallow lain features such as hearths.

**SFB's:** Five SFB's were positively identified on the site (0285, 0699, 2554, 3001 & 3002). Even with this limited number of building structures, a range of sizes and characteristics were represented consistent with those seen on other Early Anglo Saxon sites in East Anglia and have generally been interpreted as workshops or storage facilities.

These included a relatively small, probably two posted structure (0285), two large examples (0699 & 3001) (Plate 6), both originally with eight post-holes, and one with two main post-holes and up to nine secondary features which may have been original or represent later repairs (3002). A badly truncated flat-bottomed pit (2554) recorded at the western end of Area 2 was also interpreted as a possible SFB, although no post-

holes survived. SFB 0699 exhibited a secondary row of remarkably square post-holes towards its northern edge and cut into the base of the pit. These have been interpreted as either a later repair, which almost certainly would have reduced the size of the building, or were related to an internal structure associated with a specific activity undertaken in this SFB. The dimensions of the building pits varied between 3.5 and 4.6 metres in length and 2.5 to 3.6 metres in width with depths of between 0.25 and 0.6 metres. The pits were either sub-rectangular or ovate in shape with their included post-holes located on the edge of the feature (e.g. 0285, 0699 & 03001) or, as in the case of 3002, in the base of the pit. Pit sides were generally quite steep, with no evidence for erosion or collapse, while the pit bottoms were relatively flat. Beyond the post-holes actually within the building pits there was no evidence surviving, in the form of sill-beam slots or external post-holes, for the above ground superstructure of the buildings. In addition there was no evidence in the form of slots or stake-holes in the base of the pit which could indicate the presence a lining, although the crisp, near vertical, edges to the features does suggest that the sides had been retained in some way.

The excavated fills of the building pits generally comprised fairly homogenous dark grey/brown sandy loam with no obvious stratification. There was no evidence to suggest that any of the fills had been deposited while the buildings were in use and no floor surfaces were identified.

**Miscellaneous Structures:** Two structures have been included in this category, although one of these (3433) could almost be described as a 'Hall'. It is likely that during further analysis of the areas of the site with concentrations of as yet unassigned post-holes that more structures of this type will be identified.

These buildings/structures were smaller than the Halls (4.5 metres by 3 metres & either 6 or 4 metres by 4 metres), rectangular in shape with post-holes at the corners. With their smaller size, it seems likely that these structures would have performed a similar function, either as workshops or for storage, as the SFB's.

The character of building 3433 was difficult to assess as it was located in an area where the presence of unrelated post-holes made it hard to define the groundplan with any degree of certainty. Two possible scenarios have been put forward: either a building measuring 4 metres by 4 metres or one of 6 metres by 4 metres with an internal partition. Larger gaps between post-holes on both the eastern side of the 4 metres by 4 metres component and the northern side of the 6 metres by 4 metres component may represent the position of entrances.

Building 4064 was the smallest of the post-hole structures identified with its dimensions (4.5 metres by 3.5 metres) similar to those of the larger two SFB's. The structure was defined by two rows of five equally spaced post-holes, representing the sides of the building, with none at the ends, which would suggest that the latter are the most likely locations for entrances.

### **Oven**

A clay lined feature interpreted as an oven (3405) was included in this phase based primarily on its juxtaposition with hall building 2976 located c.5 metres to the north-east, and to a lesser extent on stratigraphic grounds as it cut Period II.a. and II.b.

(Roman) ditches. Artefactual evidence for an Early Anglo Saxon date was limited to a single sherd of handmade pottery.

The oven had an irregular shaped, stepped, pit at its eastern end providing access to a curving clay lined flue that terminated in a circular chamber (Plate 7). The pit had maximum width and length of 2 metres with a maximum depth of 0.6 metres. The flue was approximately 3 metres in length, curving from a north-east to south-west



**Plate 7:** Oven 3405

alignment round to a north to south orientation, with an internal width reducing from 0.5 metres down to 0.25 metres at the mouth of the circular chamber. The chamber itself had an internal diameter of 0.6 metres with a rounded profile. Interpretation of the feature as a form of oven rather than a kiln was based on the fact that the surface of the clay lining was heavily heat-reddened, but not vitrified as could be expected if it been involved with a more industrial process. The intensity of the heat-reddening reduced towards the chamber end of the flue.

Initial cleaning revealed that the roof of the structure had collapsed down into the flue and chamber. The presence of stake-holes within the *in situ* clay lining suggested that a wooden framework was used as a support during construction. While a small amount of charcoal was present in the fill of the feature, the absence of any concentrations

or discrete layers suggests that the oven had been cleaned out after its final use.

### ***Pits***

A total of eighteen pits were attributed to this phase based primarily on artefactual evidence. These were generally circular or oval in shape, ranging in diameter/length from *c.* 1 metre (0695) to 3.7 metres (3372), with depths varying between 0.2 metres (0681) and 1.6 metres (3372) and were often, but not exclusively, located close to Early Anglo Saxon buildings. Fills tended to be relatively homogenous, comprising grey/brown sandy loam with little evidence of stratification with the exception of 3372 which exhibited clearly defined layers.

### ***Post-Holes not Assigned to Formal Structures***

Only six miscellaneous post-holes were attributed to this phase based on artefactual evidence. However, it is likely that many of the post-holes which have, at this point, been attributed a Period II. (Roman) date purely on artefactual evidence were generated during the Early Saxon period and have only included residual material in their fills from the surrounding subsoil/occupation layer. During the analysis stage of the project, these features will be studied in greater detail from both an artefactual perspective, looking for evidence of residuality, and from a structural viewpoint, looking for the groundplans of hitherto unidentified formal structures.



### ***Miscellaneous Features***

Two other features, an irregular slot with possible post-settings (2006) and a slightly curving slot adjacent to SFB 0699, were attributed to this phase based on the artefactual evidence recovered from their fills. The function of these features was unclear.

### **Period III.b. Middle Saxon (c.650-850)**

No discrete features of this period were identified with only three sherds of Ipswich Ware pottery recovered from the sieved sample squares.

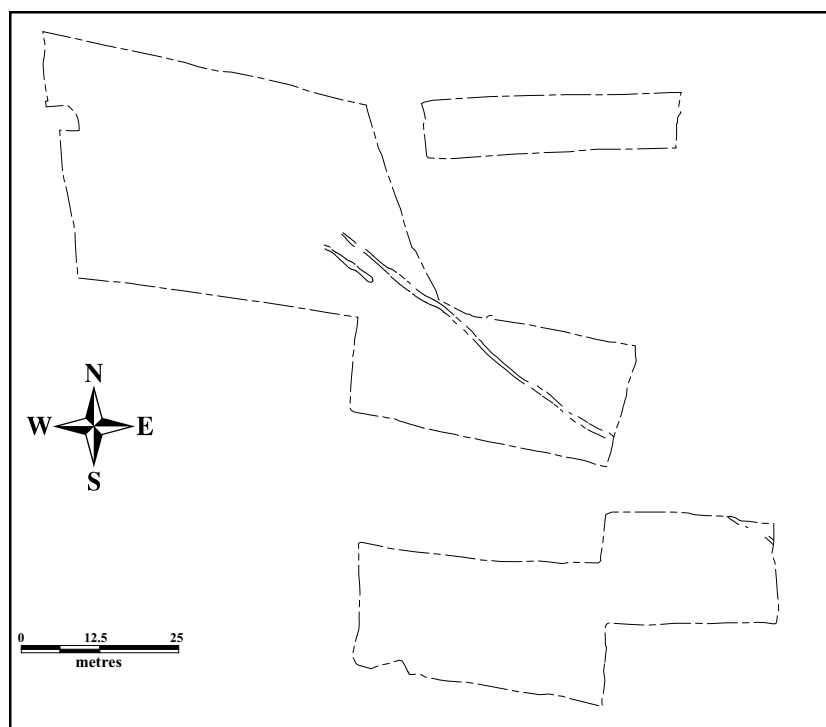
### **Period III.c. Late Saxon (c.850-1000)**

No discrete features of this period were identified with only a single, intrusive, sherd of Thetford Ware pottery recovered from the upper fill of SFB 3002. However, given the similarities between Thetford Ware and Roman grey wares more may come to light, particularly in the sieved sample squares, during the analysis stage of the project.

### **Period IV. medieval (c.1000-1480)**

While a relatively large quantity of medieval pottery (1164 sherds weighing 6.021 kg) was recovered from the sieved sample squares, only two medieval date features (ditches 2061 & 2131, Table 3 & Fig. 9) were positively identified in the excavated areas. In addition, occasional sherds of medieval pottery were recovered as intrusive and residual finds in earlier and later features respectively.

Ditch 2061 (also numbered 2903, 2938 & 3429) was orientated north-west to south-east and was recorded running for a total distance of c.90 metres across Areas 1, 3 and



**Fig. 9** 1:1,250 Scale Site Plan (Period IV. features)

4 (Fig. 9). While not all of its relationships with other features were obvious during the excavation phase, at least two were incorrectly recorded, the fill consistently included medieval pottery throughout. In addition the orientation of the feature cut across the Roman and Early Saxon feature trends which itself suggests that its chronological affinities belonged elsewhere.

The ditch itself had a maximum width of 1 metre, a maximum depth of 0.4 metres, with a variable profile and a fill generally comprising dark brown silty sand.

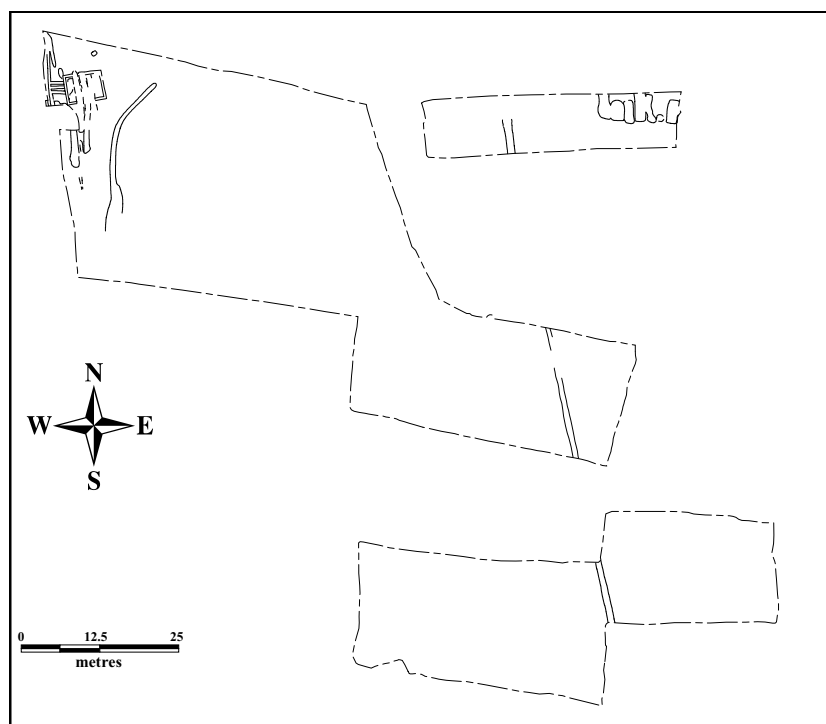
Ditch 2131 exhibited a similar orientation, range of width and depth and fill as 2061, running for a distance of only 10 metres, parallel to and c.3 metres to the south-west. Sherds of medieval pottery were recovered from its fill.

These features probably flank a track or pathway providing access to the watercourse to the south-east of the site. However, while these were the only discrete features of this period to be identified, the quantity of medieval pottery recovered from the sieved sample squares exceeds that which could be expected from a regular manuring scatter. On that basis, the presence of medieval occupation/activity within the vicinity of the site must be considered to be a distinct possibility. One further interpretation is that this material represents the vestiges of a midden deposit comprising material generated in the medieval town of Ipswich and then transported out to the site, probably through its western gate located only c.600 metres to the east.

### Period V.a. post-medieval (1480-L.19<sup>th</sup> century)

A total of twenty two features recorded during the excavation were attributed to this phase (Table 3 & Fig. 10). These effectively comprised post-medieval features which, from their stratigraphic and artefactual evidence, clearly pre-date the industrial

phase of activity on the site.



#### ***Buildings***

In the north-west corner of the site the outline of a small rectangular structure (0637), measuring 6.25 metres by 4.75 metres, was defined by a shallow footing trench. The upper fill comprised brown silty sand overlying a compact mixture of lime mortar and brick fragments.

**Fig. 10** 1:1,250 Scale Site Plan (Period III.a. features)

The north-east to south-west alignment of this structure was clearly contrary to the overlying Period V.b. building (0202) and rather than respecting the road immediately to the north, appeared to have been positioned more with regard to its aspect overlooking the site itself. On that basis, it is suggested that this structure may represent a garden feature, a shelter or 'summerhouse-like' building providing a prospect point from which to view down towards the watercourse to the south and south-east. Alternatively, the building could simply have functioned as a shed or storage facility.

### ***Ditches/linear features***

Twelve linear features were recorded.

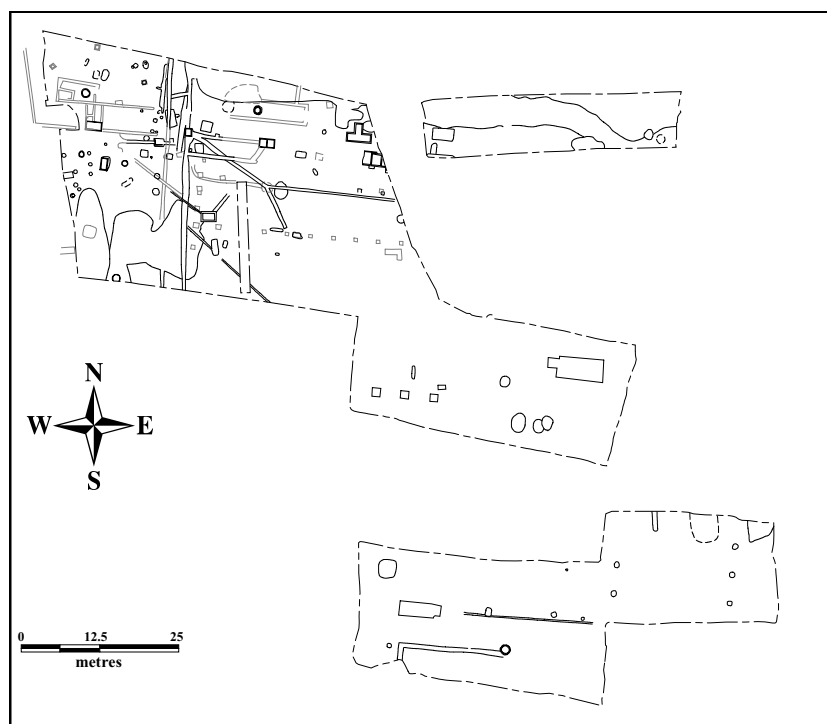
An approximately north to south orientated ditch (0241), curving and butt-ending to the north-east, was identified towards the western edge of the site. To the west of this feature a series of adjacent north to south orientated features (0612, 0655, 0673/0714, 0809), mostly shallow, were recorded, apparently post-dating building 0637 but pre-dating the Period V.b. features.

Three further north-south orientated ditches were recorded (0620, 0622/0777, 0776) adjacent to the western edge of the site, almost certainly earlier representations of this boundary. In addition, three shallow east to west orientated linear features (0811, 0812 & 0813) ran from 0622 to the west before combining into an amorphous spread under building 0637.

One other ditch, orientated north-north-west to south-south-east, was recorded running through Areas 3, 4 and 2 (3274, 3759 & 2616 respectively).

### ***Pits***

Nine pits were positively attributed to this phase. Of these, seven (2112, 2115, 2117, 2119, 2123, 2038 & 2040) were all located in the north-east corner of the site, forming a discrete group which although exhibiting variable size and shape, ranging from circular to rectangular, were of similar depth (c.0.3 metres). These features had identical fills comprising dark grey/brown loam with common brick and tile fragments. The southern edge of the pits formed a straight line which suggests that they were excavated with respect to an existing contemporary structure, either a boundary or garden feature such as a path.



The remaining two pits (0216 & 0702) were small shallow features recorded immediately to the north of the Period V.a. building 0637.

### **Period V.b. post-medieval (L.19<sup>th</sup> & 20<sup>th</sup> century)**

A total of one hundred and twenty-one features and multi-contextual structures dating to this period were allocated context numbers (Table 3 & Fig. 11). Figure 11 shows the features

**Fig. 11** 1:1,250 Scale Site Plan (Period V.b. features)

of this date which intervened into the natural subsoil (in black) and features that were recorded after the initial soil-strip for the sieved sample squares, but were subsequently removed during the secondary strip (as dotted lines). These features were generally only recorded to help prevent contamination of the sample squares and only a few were allocated context numbers.

This phase effectively relates to the semi-industrial use of the site, which began with a range of buildings fronting onto Handford Road, and then extending back piecemeal during the 20<sup>th</sup> century to cover the whole site. It is likely that the terracing of the gently sloping site into two levels was undertaken during this period.

The 1<sup>st</sup> Edition Ordnance Survey map of 1880 shows the north-west corner of the site occupied by two pairs of semidetached houses either side of an entranceway affording access to the open ground to the rear. The only other structures shown are superficial buildings adjacent to the western boundary, coinciding with a series of post-holes (0603, 0606, 0608, 0610, 0632, 0634, 0641 & 0697) recorded during the excavation, and in two demarcated strips of land along the northern edge of the site. A series of walls/footings (0202), constructed almost entirely from septaria and flint in a hard lime mortar matrix, recorded during the initial soil strip towards the north-west corner of the site coincide well with the buildings and boundaries shown on this map.

By the time of the 3<sup>rd</sup> Edition Ordnance Survey Map of 1920, the first range of industrial buildings has been constructed along the road frontage, but the rest of the site remained fundamentally unchanged.

The 1:10000 Ordnance Survey Map updated to 1967 shows the full development of the site and while it is unclear whether the two pairs of semidetached houses have been demolished or incorporated into the industrial complex, the main entrance to the site continues to be at the same location. Evidence for this was also provided during the excavation by a concentration of service trenches entering the site at this juncture. Elements of all of these structures were recorded during the excavation but do not merit further description at this stage of the project.

### **Period 0. Undated**

A total of one thousand one hundred and seventeen features remained undated (Table 3 & Fig. 12). This figure includes the eight hundred and forty-three contexts numbers allocated to the sieved subsoil squares. Also included were features which were considered to have been natural in origin, either root holes, animal burrows or tree-throws, while the remainder were genuine features but produced no datable artefactual evidence and could not be attributed to a phase on stratigraphic grounds. Also included are discrete areas of preserved subsoil which were formally excavated and produced multi-period artefactual evidence. During the analysis stage of the project, some of these features may be attributed to a specific phase.

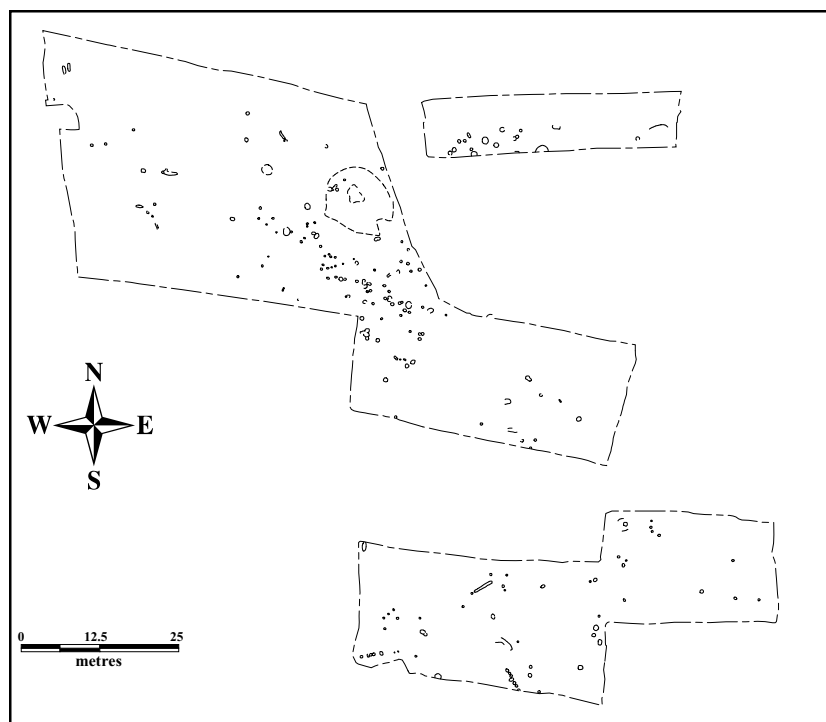
### ***Pits***

A total of thirty-four features described as pits were attributed to this phase due to the lack of artefactual and stratigraphic evidence with which to date them. The majority of these features were small, less than 1 metre in diameter with depths not exceeding 0.5 metres, although 2592 was 2 metres in diameter but was only 0.1 metres in depth. Fills generally comprised mid-dark brown silty sand with occasional stones.



### **Post-holes**

The two hundred and twenty-four undated post-holes were recorded spread



throughout the site, although there was a marked concentration towards the central area (Fig. 12). No formal structures were identified. The majority of the features were small with diameters not exceeding 0.5 metres and maximum depths of 0.3 metres. Fills usually comprised homogenous dark brown silty sand with occasional stones.

**Fig. 12** 1:1,250 Scale Site Plan (Period 0. features)

### **Miscellaneous**

#### **Features**

A total of sixteen miscellaneous features were assigned to this phase including unstratified/mixed contexts (collectively 0201), eight slots/ditches (0833, 2145, 3510, 3578, 3634, 3885, 3877 & 3973) and seven layers (0466, 0700/0745, 0975, 2066, 2090, 2160 & 2202) the majority of which were effectively part of the occupation layer.

#### **Sieved Squares**

The eight hundred and forty three sieve sample squares have been included in this phase on the basis that they effectively represent unstratified/mixed contexts.

### **3.1.2 Statement of Archaeological Potential (presented by phase)**

The following statements of archaeological potential involve the stratigraphic and structural evidence for each phase of activity identified on the site. Vertical mapper finds distribution plots will be used as a tool in the stratigraphic analysis of the archaeological deposits from all periods.

#### **Period I.a. Neolithic (c.4500 – 2700 BC)**

No discrete features were attributed to this phase and as a consequence there is no potential for any stratigraphic or structural analysis. Any further work will purely involve the artefactual evidence (see sections 3.2.1.2 Pottery & 3.2.1.4 Worked Flint).

#### **Period II. Late Iron Age/Roman (all phases, c.1<sup>st</sup> - E. 5<sup>th</sup> century AD)**

There was clearly activity associated with the site spanning the Late Iron Age through to the early 5<sup>th</sup> century, although both the artefactual (coins) and stratigraphic

evidence suggests that there may have been a break during the 3<sup>rd</sup> century. At this juncture, Period II. has only been divided into three phases, although it is clear that at least the first phase could be further subdivided. To help facilitate the refinement of the site phasing the Late Iron Age/Roman features should be included in the overall site matrix. This stratigraphic analysis is crucial to the understanding of the chronological and spatial development of the complex of ditches recorded towards the southern end of the site and their relationship with discrete structures and activity areas.

The overall character of the site should also be studied within its local and regional context with regard to other Roman sites, particularly those which, unusually, like Handford Road, appear to be occupied for a large part of the Roman Period (e.g. the Whitton Villa, IPS 200 & Clover Close/Speedwell Road, IPS 030, both in Ipswich). In addition, in order to ascertain the, possibly specialised, function of the post-holed enclosure, parallels should be sought from other Roman sites.

#### **Period III.a. Early Anglo Saxon (c.5<sup>th</sup> - E.7<sup>th</sup> centuries)**

The Early Anglo Saxon period was represented a varied selection of feature types and structures which provide a considerable potential for further analysis. Individually, the character of the buildings and structures should be studied and compared with local, regional and continental examples and the settlement as a whole placed within the local context of other known settlements and cemeteries in the Lower Gipping Valley. Their spatial relationships should be studied and used in conjunction with artefactual dating evidence to try and identify sub-phases and contemporaneous groups. The densely spaced irregular groups of post-holes (all periods) should be examined with a view to identifying hitherto unrecognised buildings and structures of Early Saxon date. All of the features should be included in a site matrix.

#### **Period III.b. Middle Saxon (c.650-850)**

No discrete features were attributed to this phase and as a consequence there is no potential for any stratigraphic or structural analysis.

#### **Period III.c. Late Saxon (c.850-1000)**

No discrete features were attributed to this phase and as a consequence there is no potential for any stratigraphic or structural analysis.

#### **Period IV. medieval (c.1000-1480)**

While there was a significant quantity of artefactual evidence recovered from the sieved subsoil squares, only two features could be attributed to this period.

Consequently, additional stratigraphic and structural analysis will not be required other than their inclusion in a site matrix and investigating their relationship with information gathered from the desktop survey.

#### **Periods V.a. & V.b. post-medieval (1480-L.19<sup>th</sup> century & L.19<sup>th</sup> & 20<sup>th</sup> century)**

Although a total of one hundred and forty-three features were attributed to these two phases, it is not considered necessary to undertake any further stratigraphic or structural analysis other than their inclusion in the site matrix and investigating their relationship with information gleaned from the desktop survey.

## 3.2 Artefactual Evidence

### 3.2.1 Bulk Finds

#### 3.2.1.1 Introduction

Table 5 shows the quantities of finds collected during the excavation. A full quantification by context is included as Appendix IV {A}.

Find type	Main contexts		Sieved squares		Total	
	No.	Wt/g	No.	Wt/g	No.	Wt/g
Pottery	11975	145997	17951	101862	29926	247859
CBM	2103	179548	9695	245822	11798	425370
Fired clay	1770	23991	678	5836	2448	29827
Stone*	87	4367	7	6099	103	10582
Mortar/plaster	46	1815	23	342	69	2157
Glass*	27	263	249	896	276	1159
Clay pipe	27	89	497	2063	524	2152
Lava quern	430	5590	110	5215	540	10805
Worked flint	198	1687	277	1468	475	3155
Burnt flint/stone	622	22379	370	7860	992	30239
Slag	2921	77811	1351	29482	4272	107293
Iron*	514	8292	1369	13032	1883	21324
Copper alloy*	132	588	249	951	381	1539
Lead*	47	807	153	3795	200	4602
Silver*	3	6	10	15	13	21
Animal bone	13537	118040	4525	35983	18062	154023
Shell*	3171	26550	843	6001	4012	32531
Charcoal	33	-	4	-	37	-

\* Includes Small finds

**Table 5:** Finds Quantities

At this stage, material collected from the sieved squares has been quantified by material and/or period only, and its assessment uses this basic data. Full methodologies for each find type are included below.

#### 3.2.1.2 Pottery (Cathy Tester & Sue Anderson)

##### Introduction

A total of 29926 sherds of pottery weighing 247859g was assessed. The quantities by period are shown in Table 6. A full catalogue of the pottery recovered from excavated contexts is presented as Appendix IV {B}.

Period	Main contexts		Sieved squares	
	No.	Wt/g	No.	Wt/g
Prehistoric	39	259	-	-
Roman	10523	127817	15400	85714
Early Saxon	1279	15824	562	3480
Middle Saxon?	-	-	3	38
Late Saxon	1	35	-	-
Medieval	55	375	1104	5636
Late medieval	12	99	60	385
Post-medieval	18	266	647	5202
Modern	48	1322	175	1407

**Table 6:** Pottery Quantities by Period

## Methodology

Hand-made prehistoric wares were counted and weighed and classified broadly by their most common visible fabric inclusions but at this stage no descriptions based on microscopic analysis were made. Decoration and sherd types (rim, base, bodysherd) were noted.

Wheel-made Late Iron Age (LIA) and Roman pottery from the sieved square contexts was counted and weighed by period only but notes were made of anything such as unusual imports or possible ‘curated’ pieces. Unless it is specifically mentioned, the material from the sieved squares will not be discussed in the LIA/Roman pottery report. Pottery from the non-square contexts was counted and weighed by fabric within each context and a note was made of sherd types and abrasion. Although quantification was by fabric, the range of forms present within each fabric group was noted using the Pakenham type series (unpublished) which is standard for all SCC excavations but is supplemented by Hawkes and Hull’s (1947) *Camulodunum* typology and Going’s Chelmsford typology (1987). A spotdate was given to each fabric group and an overall spotdate was given for the LIA/Roman pottery in each context group regardless of the date of other finds. All records were input onto an Access database.

The post-Roman pottery from the sieved squares was counted and weighed by period only, although a brief record was made of any unusual or noteworthy sherds. Pottery from other contexts was quantified and spotdated by fabric, but at this stage not by form, minimum number of vessels (MNV) or estimated vessel equivalent (eve). Early Saxon fabric assignments were based on the most common inclusions, but it should be noted that handmade fabrics are extremely variable, even within a single vessel, so the fabric groups are generic. For assessment, no microscopic analysis was undertaken, so fabric allocations may change slightly at the analysis stage. Notes were made if decorated sherds were present or if forms could be identified and were relevant to dating. Data was input onto an Excel spreadsheet for the sieved squares, and an Access database for the spotdated contexts.

## Prehistoric Pottery (Cathy Tester)

Hand-made prehistoric pottery accounted for a very small proportion of the pottery assemblage. Thirty-nine sherds weighing 259g were assessed and their quantities by fabric are shown in Table 7.

<b>Fabric</b>	<b>Code</b>	<b>No</b>	<b>% No</b>	<b>Wt/g</b>	<b>% Wt</b>	<b>Av Wt/g</b>
Unspecified hand-made wares	HM	4	10.3	28	10.8	7.0
Hand-made flint tempered	HMF	6	15.4	27	10.4	4.5
Hand-made grog tempered	HMG	3	7.7	41	15.8	13.7
Hand-made sand tempered	HMS	9	23.1	83	32.0	9.2
Hand-made sand/organic tempered	HMSO	17	43.6	80	30.9	4.7
<b>Total prehistoric wares</b>		<b>39</b>	<b>100.0</b>	<b>259</b>	<b>100.0</b>	<b>6.6</b>

**Table 7:** Prehistoric Fabric Quantities

Prehistoric pottery was collected from twenty-six features or feature groups — ten ditches, two layers, five pits, four SFBs, three postholes and unstratified. In all but seven features it was found with later-dated pottery. The pottery was dispersed and its condition was poor – mostly small, abraded and non-diagnostic, with the average sherd weighing only 6.6g

The pottery was assigned to five broad fabric groups and possibly includes Neolithic, Bronze Age and Iron Age pieces. Two decorated pieces may be Neolithic ‘Grooved ware.’ Grog tempered sherds may include possible Bronze Age and Late Iron Age and the sand-tempered wares are more likely to belong to the later Iron Age.

## Late Iron Age & Roman Pottery (Cathy Tester)

### Introduction

Wheel-made Late Iron Age and Roman pottery makes up the majority of the site's pottery assemblage, accounting for 87% of the non-square and about 85% of the sieved squares pottery. A total of 10523 sherds (127817g) from 586 non-square contexts was assessed. Forty-three fabrics or fabric groups were identified which include local, regional, provincially-traded and imported finewares and coarsewares. The quantities by fabric categories are summarised in Table 8.

Fabric category	No	% No	Wt/g	% Wt	Av Wt/g
Imported finewares	143	1.4	1434	1.1	10.0
Imported coarsewares	94	0.9	10426	8.2	110.9
Provincially-traded and late specialist wares	354	3.4	4478	3.5	12.6
Local and regional finewares	116	1.1	1920	1.5	16.6
Local and regional coarsewares	9816	93.3	109559	85.7	11.2
<b>Total LIA Roman pottery</b>	<b>10523</b>	<b>100.0</b>	<b>127817</b>	<b>100.0</b>	<b>12.1</b>

**Table 8:** Late Iron Age & Roman Fabric Categories

### Imports

Imported finewares and coarsewares are shown in Table 9.

Fabric	Code	No	% No	Wt/g	% Wt	Av Wt/g
Amphora	AA	90	0.9	10396	8.1	115.5
Central Gaulish black-slipped wares	CGBL	1	0.0	2	0.0	2.0
Lower Rhineland (Cologne) colour-coated wares	KOLN	2	0.0	8	0.0	4.0
Mayen coarseware	MAYN	4	0.0	30	0.0	7.5
North Gaulish white fineware	NGWF	1	0.0	2	0.0	2.0
Central Gaulish samian (Lezoux)	SACG	68	0.6	711	0.6	10.5
East Gaulish samian	SAEG	24	0.2	237	0.2	9.9
Central Gaulish samian (Les Martres)	SAMV	6	0.1	71	0.1	11.8
East Gaulish samian (Rheinzabern)	SARZ	3	0.0	63	0.0	21.0
South Gaulish samian	SASG	31	0.3	273	0.2	8.8
East Gaulish samian (Trier)	SATR	5	0.0	65	0.1	13.0
Terra Rubra	TR	2	0.0	2	0.0	1.0
<b>Total Imported finewares</b>		<b>237</b>	<b>2.3</b>	<b>11860</b>	<b>9.3</b>	<b>10.0</b>

**Table 9:** Imported Wares

Apart from the samian, imported finewares are rare and the earliest are Gallo-Belgic — a single sherd of North Gaulish white fineware (NGWF) and two small joining sherds of Terra Rubra from a closed vessel, probably a beaker. Both wares belong to the first half of the 1st century AD.

The earliest samian is South Gaulish from La Graufesenque. Forms identified include cups (Dr 27), platters and dishes (Dr 18, 18/31, 35, 36) and bowls (Dr 29, 30, 37) which are all typical Flavian (late 1st century) forms. None of the Claudio-Neronian forms which are often associated with the military seem to be present in this collection. Most of the samian is 2nd century or later. Central Gaulish samian from Les Martres-de-Veyre is Trajanic and includes a cup (Dr 27), a platter (Dr 18) and a bowl (Dr 37) but most of the Central Gaulish samian is Hadrianic or Antonine and comes from Lezoux. It includes some early pieces (Dr 27, 18/31) but most of the identified forms are Antonine (Dr 31, 33, 38) or late Antonine (Dr 45). Other forms (Dr 35, 36, 37) are not as closely datable but are more likely to belong to the second half of the 2nd century. The latest samian is East Gaulish and includes pieces (Dr 31,

33, 37, 38, Curle 21, Ludowici Tx) from Rheinzabern, Trier and other East Gaulish production centres which date from the late 2nd to mid 3rd centuries. A few sherds of Colchester samian may have been mis-identified as East Gaulish.

The remaining finewares consist of a single Central Gaulish black-slipped ware (CGBL) beaker sherd which would be mid or late 2nd to early 3rd century and two sherds from Lower Rhineland colour-coated ware (KOLN) beakers, both bag-shaped, one roughcast and probably of a similar date.

Imported coarsewares consist of amphora which are almost all South Spanish (Baetican) fabric and the more diagnostic pieces are Dressel 20 forms. Because of their size, amphora account for 8.1% of the entire LIA/Roman assemblage weight. However, they equal just less than 1% of the sherd count and are very dispersed — 90 sherds were found in 45 contexts where they represent very small proportions of the original vessels. A second imported coarseware is Late Roman Mayen ware (MAYN) which could be mid 4th century or later and is represented by a single lid-seated jar. It is quite likely that some Mayen body sherds have gone unrecognised amongst the non-diagnostic grey wares and that more will be identified in the analysis stage.

#### ***Provincially-traded and late specialist wares***

Provincially-traded and late specialist wares characterise the late and latest Roman Period. Their quantities are shown in Table 10.

<b>Fabric</b>	<b>Code</b>	<b>No</b>	<b>% No</b>	<b>Wt/g</b>	<b>% Wt</b>	<b>Av Wt/g</b>
Black-burnished ware category 1	BB1	12	0.1	284	0.2	23.7
Hadham white-slipped oxidised mortaria	HAWOM	2	0.0	10	0.0	5.0
Hadham red wares	HAX	97	0.9	1148	0.9	11.8
Hadham red ware mortaria	HAXM	3	0.0	231	0.2	77.0
Late shell-tempered wares	LSH	153	1.5	1532	1.2	10.0
Nene Valley colour-coated wares	NVC	53	0.5	347	0.3	6.5
Nene Valley parchment ware	NVP	3	0.0	36	0.0	12.0
Nene Valley white ware mortaria	NVWM	5	0.0	412	0.3	82.4
Oxfordshire red colour-coated	OXRC	25	0.2	471	0.4	18.8
Oxford white ware mortaria	OXWM	1	0.0	7	0.0	7.0
<b>Total prov. traded or late specialist wares</b>		<b>354</b>	<b>3.4</b>	<b>4478</b>	<b>3.5</b>	<b>12.6</b>

**Table 10:** Provincially-Traded & Late Specialist Wares

Twelve sherds of black burnished wares category 1 (BB1) were collected. They include high-shouldered beakers, jars and straight-sided dishes which date from the mid 2nd century onwards.

Hadham wares include red wares (HAX) represented by flagons, beakers, dishes, bowls and mortaria (HAWOM and HAXM) and belong to the late 3rd or 4th centuries.

Nene Valley products include colour-coated wares (NVC) which are represented by flagons, beakers, jars bowls, castor boxes and dishes. Also found were parchment wares (NVP), but no forms identified, and white ware mortaria (NVWM) one bead and flange-rimmed and the other wall-sided. All were produced during the late 3rd and 4th centuries, but it is notable that the latest forms such as medium and wide-mouthed jars, are rare, if not absent in this collection.

Oxfordshire red colour-coated wares (OXRC) which are 4th century are represented by bowls which correspond to Young's (1977) types — a flanged bowl (C51) which copies samian Dr 38, C59 which copies Dr 37, a necked bowl (C75) and a wall-sided carinated bowl (C81-2). A single sherd of white ware mortaria (OXWM) was also found.

Late shell-tempered wares (LSH) which were widely distributed in the late 3rd and 4th centuries are represented most commonly by round-bodied jars (type 4.5) but storage jars and straight-sided dishes including a flanged type 6.17 were also identified.

Late specialist wares account for a small but significant proportion of the assemblage. Although they are ubiquitous, they are spread thinly, and most often occur singly or in twos and are abraded. The impression is that they have been through a long cycle of deposition and while they indicate late 3rd and 4th century occupation in general, they do not often date features. They are often found in association with post-Roman finds.

### ***Local & Regional Finewares***

Specialist finewares are not common, but 'finer' elements are also recognised within the broader greyware fabric groups. Table 11 shows local and regional fineware fabrics.

<b>Fabric</b>	<b>Code</b>	<b>No</b>	<b>% No</b>	<b>Wt/g</b>	<b>% Wt</b>	<b>Av Wt/g</b>
Colchester colour-coated wares	COLC	31	0.3	68	0.1	2.2
Colchester samian	COLSA	4	0.0	15	0.0	3.8
Mica dusted wares (fine?)	MIC	2	0.0	13	0.0	6.5
Miscellaneous red fineware	RF	32	0.3	159	0.1	5.0
Unspecified colour-coated wares	UCC	46	0.4	1659	1.3	36.1
West Stow fine reduced wares	WSF	1	0.0	6	0.0	6.0
<b>Total local and regional fineware</b>		<b>116</b>	<b>1.1</b>	<b>1920</b>	<b>1.5</b>	<b>16.6</b>

**Table 11:** Local & Regional Finewares.

The earliest finewares appear to copy Gallo-Belgic forms and are mid or late 1st century. Red finewares (RF) include a butt beaker, a girth beaker and an ovoid beaker. Some of these may be examples of what Hull (1947) calls 'TR4' – a native version of Terra Rubra. Another early fineware is from West Stow, a 'London-ware' type bowl or cup which is late 1st or early 2nd century.

Colchester colour coated ware (COLC) beakers are cornice-rimmed, indented or bag-shaped and some are roughcast. These are early or mid 2nd to early 3rd century. Several sherds of Colchester samian were also found — others may have been mis-identified as East Gaulish samian. Unspecified colour-coated wares (UCC) were collected from twenty-nine contexts and may include sherds from Colchester, Hadham, the Nene Valley, Oxford or other unknown sources that were not diagnostic enough to be certainly classified. Forms identified were beakers, a dish and a castor box which probably range in date from the 2nd to 4th centuries. One mica-dusted (MIC) sherd of unknown origin was also found.

### Local & Regional Coarsewares

Coarsewares make up the bulk of the collection (93% count and 85.7% weight) and are dominated by several broad grey ware groups from a variety of sources that are presumed to be local or regional. The quantities are shown in Table 12.

Fabric	Code	No	% No	Wt/g	% Wt	Av Wt/g
Black-surfaced wares	BSW	2447	23.2	20630	16.1	8.4
Miscellaneous buff wares	BUF	121	1.1	933	0.7	7.7
Colchester buff ware mortaria	COLBM	4	0.0	201	0.2	50.3
Early shell-tempered wares	ESH	8	0.1	61	0.0	7.6
Grey micaceous wares black-surfaced	GMB	277	2.6	2549	2.0	9.2
Grey micaceous wares grey-surfaced	GMG	328	3.1	3161	2.5	9.6
Grog-tempered wares (Belgic)	GROG	247	2.3	3803	3.0	15.4
Smooth red-surfaced wares	GROG-S	6	0.1	28	0.0	4.7
Miscellaneous sandy grey wares	GX	5563	52.9	49021	38.4	8.8
Miscellaneous grey mortaria	GXM	2	0.0	106	0.1	53.0
Miscellaneous red coarse wares	RX	186	1.8	1361	1.1	7.3
Storage jar fabrics	STOR	534	5.1	26301	20.6	49.3
White-slipped oxidised wares	WSO	24	0.2	321	0.3	13.4
Miscellaneous white wares	WX	63	0.6	787	0.6	12.5
Miscellaneous white ware mortarium	WXM	6	0.1	296	0.2	49.3
<b>Total local and regional coarsewares</b>		<b>9816</b>	<b>93.3</b>	<b>109559</b>	<b>85.7</b>	<b>11.2</b>

**Table 12:** Local & Regional Coarsewares.

The earliest coarsewares are wheel-made grog-tempered wares (GROG and GROG-S) which date from the first half of the 1st century AD. GROG was found in 87 contexts but it is characterised by largely non-diagnostic and abraded sherds. Jars are the chief vessel class identified but more specific forms are rare and almost confined to single examples. Included are a high shouldered jar (Cam 266), butt beakers and a Gallo-Belgic cup (Cam 210-214). Cordoned jar Cam 218 is notably absent in the grog-tempered wares which may indicate a pre-Conquest date for this group. Smooth red-surfaced wares (GROG-S) which are separately classified because they appear to be a deliberate attempt at reproducing imported finewares, include a butt beaker and a girth beaker. A few sherds of early shell-tempered wares (ESH), a contemporary of grog-tempered wares were also found but no forms identified.

Black-surfaced wares (BSW) account for nearly a quarter of the sherd count (23.2%) and 16% of the assemblage weight and include both an early and a late component. Early black-surfaced wares range in date from the second quarter of the 1st century AD to the early 2nd. A significant fineware element is also present and some of the earliest pieces have very 'romanising' fabrics which contain abundant black grog and burnt organic material. The range of early forms include flasks (Cam 231, 232), butt beakers, girth beakers, ovoid beakers, Gallo-Belgic cups (Cam 211-214), high-shouldered jars (Cam 266), cordoned jars (Cam 218), carinated bowls and platters (Cam 14, 16, 24, 24c). Later BSW forms are 2nd century and later and the range of forms includes straight-sided dishes (types 6.17, 6.18, 6.19), high-shouldered beakers, (type 3.10), jars and lids. An unusual form identified is a deep straight-sided dish, type 6.17, which has mortaria grits.

Micaceous grey wares in the black-surfaced and grey-surfaced variants (GMB and GMG) are a small but significant component of the assemblage. All GM wares have a fine textured fabric which has abundant mica and few other inclusions and a source



in the north of the county is suggested. Some of the sherds have the distinctive bluish colour which was seen as a feature of the kiln material from Flixton Quarry (FLN 062) and may indicate a source in that vicinity. Other sherds are identical to the material found on sites in the north and northwest of the county where they are thought to come from the Wattisfield area. Like BSW, GM fabrics have an early and late component and a significant fineware element. The range of early Roman forms includes bottles or flasks, globular beakers, high-shouldered jars, cordoned and carinated jars, a carinated bowl, a shallow flanged dish and Gallo-Belgic platters in both variants. Later (2nd to 4th century) forms include straight-sided dishes with flanged, beaded, grooved and plain rims (types 6.17, 6.18, 6.19), high-shouldered beakers and round-bodied jars (types 4.5 and 4.6).

Miscellaneous sandy grey wares (GX) account for more than half of the sherds (52.9%) and 38.9% of the total assemblage weight. This is a very broad fabric group and the range of forms identified include early and late vessels. Early forms are narrow mouthed jars or flasks (Cam 231), butt beakers, girth beakers and ovoid beakers (Cam 108), high-shouldered jars (Cam 266 and Braughing jars) and cordoned jars (Cam 218). Open forms include Gallo-Belgic cups (Cam 56, 74, 211-214), carinated bowls and platters. GX is generally regarded as a later, fully-romanised fabric group, but some of these early Roman sherds have 'romanising' fabrics. Later forms which date from the 2nd century onwards are bifid-rimmed jars (Going G26), round bodied jars (type 4.5, 4.6, 4.9), high-shouldered beakers and indented beakers (types 3.10, 3.12), 'pseudo-cauldrons' with fixed suspension loops and straight-sided dishes with flanged, beaded, grooved and plain rims (6.17, 6.18, 6.19).

Amongst this later GX pottery are what is likely to be the products of the kiln which was found on the site or perhaps, other kilns close by. So far, the range of forms has not been established. Even in the kiln contexts, it was not clear during the assessment which were the kiln products. There were no wasters, but some of the type 4.5 and 4.6 round-bodied jars had a brittle slightly over-fired feel and may be possible candidates. Also amongst the non-diagnostic GX body sherds may be a number of unrecognised imports and unidentified post-Roman sherds which hopefully will be re-assigned during the analysis stage.

Miscellaneous storage jars (STOR) in a range of reduced and oxidised fabrics, account for 5.1% of the sherd count and because of their large size, a fifth of the assemblage weight. Forms identified are high-shouldered with concave necks and a variety of undercut and oval rims. They can range in date from the 1st to 4th centuries.

The rest of the coarsewares are oxidised and include red, buff and white wares which altogether equal about 3% of the assemblage. Miscellaneous red wares (RX) include flagons or jugs, butt beakers, ovoid beakers, cordoned jars, bowls and platters. Some of these sherds may be Hadham or Oxfordshire products but are not diagnostic enough to be certain. Many sherds are abraded and the possibility that some of the non-diagnostic RX body sherds are not Roman cannot be ruled out. White-slipped red wares (WSO) are represented by flagons, one painted. Miscellaneous buff wares (BUF) include flagons, a girth beaker, globular beakers, bowls, Gallo-Belgic cups and platters and a triple vase. Colchester buff ware mortaria (COLBM) were also identified. Miscellaneous white wares (WX) include flagons and a girth beaker.

White ware mortaria (WXM) include Cam 497 and Cam 498-499. These date from 160-200 AD and may be Colchester products.

### Early Saxon Pottery (Sue Anderson)

As shown in Table 6, Early Saxon pottery forms a high proportion of the post-Roman assemblage at this site. The sieved squares produced over 500 sherds and the non-square contexts over 1200. Table 13 shows the quantification by basic fabric group for the non-square contexts only.

Fabric	Code	No.	% No.	Wt/g	% Wt
Early Saxon Charnwood Forest type	ESCF 2.10	52	4.1	602	3.8
Early Saxon Coarse Limestone/Shell	ESCL 2.13	14	1.1	437	2.8
Early Saxon Coarse Quartz	ESCQ 2.03	62	4.8	608	3.8
Early Saxon Ferrous oxide	ESFE 2.20	1	0.1	180	1.1
Early Saxon Fine Sand	ESFS 2.04	135	10.6	1327	8.4
Early Saxon Grass and Sand Tempered Ware	ESO2 2.02	2	0.2	24	0.2
Early Saxon Grass Tempered Ware	ESO1 2.01	7	0.5	98	0.6
Early Saxon Grog + Organic	ESGO 2.06	1	0.1	3	0.0
Early Saxon Grog + Sand	ESGS 2.05	5	0.4	76	0.5
Early Saxon quartz conglomerates	ESQC 2.15	1	0.1	52	0.3
Early Saxon Quartzite Tempered	ESQZ 2.12	10	0.8	188	1.2
Early Saxon Sand + Mica	ESSM 2.08	17	1.3	178	1.1
Early Saxon Shell and Organic	ESSO 2.19	13	1.0	207	1.3
Early Saxon sparse limestone	ESSL 2.14	6	0.5	168	1.1
Early Saxon Sparse Shelly	ESSS 2.07	953	74.5	11676	73.8
<i>Early Saxon total</i>		<i>1279</i>		<i>15824</i>	

**Table 13:** Early Saxon Pottery Quantities by Fabric

A wide range of fabrics was present in this assemblage, although by far the most common were the shell-tempered wares. These were quite variable, and although they have all been categorised as ‘sparse shelly’ at this stage, some had originally contained more shell than this might suggest. In many cases the calcareous element had been lost through leaching. Fine sandy wares were also common, and this is the normal finding in East Anglian assemblages — the groups are usually dominated by one or two types of other inclusion, but there is always a relatively high proportion of plain sandy wares.

It is noticeable that there are very few organic-tempered wares in this assemblage. This type of fabric is thought to belong to the 7<sup>th</sup> century. As there is very little Ipswich Ware from the site (see below), it seems likely that activity did not continue very far into the 7<sup>th</sup> century.

Very few sherds could be closely dated. However there were several decorated pieces (stamps, incised lines, bosses) and some with surface treatments (burnishing, combed or pinched rustication). Vessel forms, where identifiable, included sub-biconical jars, but the majority of forms were simple baggy or globular jars and wide-mouthed bowls, and there were a few hemispherical bowls. The overall impression is of a 5<sup>th</sup>/6<sup>th</sup> century assemblage, which ties in with the lack of organic-tempered wares.

### Middle Saxon & Later Pottery (Sue Anderson)

Only three sherds from the sieved squares were identified as possibly Middle Saxon Ipswich Ware. This is a very small quantity from a large site in Ipswich, and does not

indicate activity during the period. The same can be said of the Late Saxon phase, for which only one sherd of Thetford-type ware (35g) was identified in the non-square contexts. This fabric is difficult to recognise amongst Roman material and it is possible that more was present, but this sherd was the only identifiable rim of this ware.

Table 14 shows the quantities of post-Saxon pottery from the non-square contexts.

<b>Fabric</b>	<b>Code</b>		<b>No.</b>	<b>% No.</b>	<b>Wt/g</b>	<b>% Wt</b>
Early Medieval Ware Sparse Shelly	EMWSS	3.19	3	5.5	9	2.4
Medieval Coarse Ware Gritty	MCWG	3.21	2	3.6	4	1.1
Medieval Coarse Wares (general)	MCW	3.20	29	52.7	206	54.9
Melton Shelly Ware	MTN1	3.54	4	7.3	11	2.9
Hedingham Fine Ware	HFW1	4.23	2	3.6	7	1.9
Hollesley Glazed Ware	HOLG	4.32	11	20.0	46	12.3
Ipswich Glazed Ware	IPSG	4.31	1	1.8	5	1.3
London-type Ware	LOND	4.50	2	3.6	14	3.7
Scarborough Phase II	SCAR2	4.42	1	1.8	73	19.5
<i>Medieval total</i>			<i>55</i>		<i>375</i>	
Late Essex-type Wares	LMTE	5.60	2	16.7	32	32.3
Late Medieval and Transitional	LMT	5.10	5	41.7	25	25.3
Cologne/Frechen Stoneware	GSW4	7.14	5	41.7	42	42.4
<i>Late Medieval total</i>			<i>12</i>		<i>99</i>	
Glazed Red Earthenware	GRE	6.12	13	72.2	216	81.2
Iron Glazed Black Wares	IGBW	6.11	1	5.6	4	1.5
Border Wares	BORD	6.22	1	5.6	12	4.5
Post-Medieval Slipwares	PMSW	6.40	1	5.6	29	10.9
Staffordshire type Slipware	STAF	6.41	1	5.6	3	1.1
Tin Glazed Earthenwares	TGE	6.30	1	5.6	2	0.8
<i>Post-medieval total</i>			<i>18</i>		<i>266</i>	
Creamwares	CRW	8.10	1	2.1	1	0.1
English Stoneware	ESW	8.20	2	4.2	50	3.8
English Stoneware Nottingham-type	ESWN	8.22	2	4.2	78	5.9
Late Post Medieval Earthenwares (plantpots etc.)	LPME	8.01	13	27.1	402	30.4
Porcelain	PORC	8.30	4	8.3	50	3.8
Refined White Earthenwares	REFW	8.03	25	52.1	672	50.8
Yellow Ware	YELW	8.13	1	2.1	69	5.2
<i>Modern total</i>			<i>48</i>		<i>1322</i>	

**Table 14:** Post-Saxon Pottery Quantities by Fabric

The quantities of medieval and later pottery from features are very small. Considerably more was collected from the sieved squares. The range is fairly typical for Ipswich, dominated by local wares, but including English wares from outside the region, and some imports. Early medieval wares appeared to make up a higher proportion of the medieval component in the sieved square assemblage, but they were not quantified separately at this stage. The late medieval period onwards is clearly much better represented in the sieved squares (see Table 6).

### Pottery by Feature

Table 15 shows the quantities (sherd count only) of pottery by period and feature type (non-square contexts).

Prehistoric pottery was found in a very limited number of features and the number of sherds collected was too small to make conclusions about its deposition pattern.

Feature type	Preh	Rom	ESax	LSax	Med	LMed	PMed	Mod
Ditch	18	3551	31		19	3	8	
Gully		6						1
Kiln		333						
Layer	3	1016	6		8	1	4	2
Oven		90	1					
Pit	7	2453	192		8	2	7	40
Post-Hole	3	584	20		1			1
SFB	4	692	1007	1	13	1	1	2
Slot		33	1					
Track		36						
Well		820	8		2			1
Unstratified	3	870	13		4	1	2	1

**Table 15:** Quantities of Pottery by Feature Type

More than 80% of the LIA and Roman pottery came from cut features and the rest came from open features (layers, track) or were unstratified. More than half of the pottery came from ditches (33%) or pits (23.3%). A further 10% came from layers, 8% from the well, 6.6% from SFBs, 5.5% from postholes and 3.2% from the kiln. All other feature types account for 1% or less of the LIA / Roman assemblage. It is notable that the average sherd weight from ditches (10.8g), layers (8.9g) and the most obvious post-Roman feature, SFBs (7.4g) which have typically undergone longer deposition cycles is smaller in comparison to that from features such as the kiln (18.6g), the well (19.3g) and the oven (15.1g). Large groups (more than 100 sherds) were found in ditches 3179, 3274, 3345 and 3711, pits 3372, 3619, 3665 and 3961, posthole 2995, layer 0700, kiln 3952 and well 3218.

The majority of Early Saxon pottery was recovered from SFBs, although a relatively large group also came from pits. A few later sherds appear to be intrusive in SFBs, and some of these will need to be re-examined to check their identification. Phasing was not available at assessment, so it is unclear how much of this material is likely to be residual, but as so little of it appears to come from non-Saxon features, residuality seems unlikely to be a problem for the Early Saxon assemblage.

The largest groups of pottery were from SFBs and pits, in particular, pits 3484 (60 sherds) and 3343 (56 sherds). SFB 0285 contained 84 sherds, of which several were of 5<sup>th</sup> century date. SFB 3002 contained 166 sherds, including one with close-set bossing, and may be 6<sup>th</sup> century. SFB 0699 produced 258 sherds, of which several were decorated, and is likely to belong to the 5<sup>th</sup>/6<sup>th</sup> centuries. The largest group was from SFB 3001, 497 sherds, which suggested a possible date of 5<sup>th</sup>/E.6<sup>th</sup> century.

### Statement of Potential

#### *Prehistoric & Roman Pottery*

The LIA Roman pottery assemblage is important because it will add greatly to the current knowledge of pottery supply and use in the Ipswich region during the Late Iron Age and Roman periods. The potential value of this assemblage is its size and date range which spans the entire period. The pottery from the Handford Road main contexts (10,523 sherds, 127.8kg) would be the first large group from Ipswich to be

fully-quantified using current methodology and it can provide information to the study of the site's economy, industry and trading connections and for establishing the character of the activities carried out there.

For assessment, the LIA and Roman pottery has been quantified by fabric only and the assessment archive is essentially a record of fabrics or wares which by itself can be used as broad indicators of dating, status, trade and economy. Vessel types, or more often just their broad classes (jars, bowls, platters), which were immediately identifiable were noted for each fabric group but this is *not* a record of their frequency or proportions within the assemblage and *not* a complete record of all the types present. It would be impossible for instance, to recognise a gap such as that which was apparent in the coin record (see Plouviez above) without full recording and identification of all vessel types.

Further work on the pottery from sieved squares would have a very low priority since most of it has been through a very long cycle of deposition and is small, abraded and non-diagnostic. The odd exceptions where there were larger 'fresher' sherds could be compared with the pottery from features below to see if they are linked which could tell us that some of the sieved squares contain material from the tops of underlying features. The data already collected, count and weight, and broad period, should be sufficient for any distribution plots of the sieved square material to be made using Vertical Mapper.

The prehistoric and Roman non-square pottery requires a full catalogue by fabric and form, rim diameter and percentage measurements for eves.

The kiln products need to be investigated. Even from the kiln contexts, it was not clear during the assessment which *were* kilns products or what their range of forms or fabrics were.

Distribution plots of fabric and form categories and/or ceramic periods and other pottery data would be helpful for analysis.

Provision should be made for the illustration of c.50 Roman vessels.

### ***Post-Roman Pottery***

The sieved square pottery has only been quantified by date for assessment. The post-Saxon pottery should have at least a basic record to the standard of the non-square pottery at assessment, i.e. quantification by fabric.

The Early Saxon pottery from the sieved squares requires a full record, so that it can be included with the main assemblage. As a whole, this is one of the largest non-funerary assemblages of this date from anywhere in Suffolk in recent years, and it is important for comparison with funerary sites such as Boss Hall and Hadleigh Road (both Ipswich), Sutton Hoo (National Trust excavation), Flixton and Eriswell. Comparisons should also be made with other non-funerary assemblages such as Eriswell, Bloodmoor Hill, West-Stow and the limited Early Saxon material recovered from Ipswich (principally the Novotel site). In addition, the non-square pottery requires a full catalogue by fabric and form, calculation of MNV for the Early Saxon group, and rim diameter and percentage measurements for eves.

Distribution plots of the sieved square material by period should be made using Vertical Mapper and supplied for the analysis stage.

Spatial and temporal analysis of the post-Roman pottery should be undertaken.

Saxon stamped pottery should be studied for inclusion in the Corpus of Anglo Saxon Pottery Stamps.

A report narrative should be prepared for publication.

Provision should be made for the illustration of *c.*20 Saxon vessels.

### **3.2.1.3 Ceramic Building Material (CBM), Fired Clay & Mortar (Sue Anderson)**

#### **Introduction**

This assessment presents the basic information collected on the CBM, fired clay and mortar, principally quantifications by fabric or form. Detailed discussion of the findings will have to await future analysis, and suggestions for further work are included for consideration (section 6.2).

#### **Methodology for assessment**

CBM from the sieved squares was quantified by non-specialist staff by period only and then discarded. A database of this information was prepared and is available in archive. Identification of the material was difficult as it was not possible to wash each fragment in the time available. Sieved square fired clay and mortar was quantified but not assessed and is available for analysis.

CBM from other contexts was quantified by form, spotdated and any observations recorded; assessment is based on this data. Fired clay and mortar were both recorded in full. A catalogue by context is included as Appendix IV {D}.

#### **Ceramic Building Material**

Table 16 shows the quantities of sieved square CBM by period (9695 fragments, 245822g).

<b>Period</b>	<b>No.</b>	<b>Wt/g</b>
Roman	5130	158775
Medieval	67	741
Post-medieval	4474	86240
Unidentified	24	66

**Table 16:** CBM From Sieved Squares by Period

This material was generally heavily abraded and had a low average fragment weight (25.4g overall). The majority of the assemblage consisted of Roman tile and post-medieval plain roof tile, as would be expected from the mixed soil layer from which it was derived. This layer also produced large quantities of post-medieval and modern pottery, which were largely absent from the non-square contexts.

A total of 2103 fragments of CBM, weighing 179548g, was collected from non-square contexts. Table 17 shows the quantities of this assemblage by form.

The average fragment weight for this assemblage was 85.4g, considerably more than that from the sieved squares. Several very large pieces of Roman tile were present.

The group was clearly dominated by Roman tile, with much smaller quantities of post-Roman material, most of which was post-medieval and modern.

<b>Period</b>	<b>Form</b>	<b>Code</b>	<b>No.</b>	<b>Wt/g</b>
Roman	Roman tile	RBT	1422	117074
	Flanged tegula	FLT	183	36618
	Imbrex	IMB	152	12073
	Box flue tile	BOX	11	871
Post-Roman	Roof tile	RT	186	4575
	Ridge tile?	RID?	1	103
	Pantile	PAN	1	25
	Late brick	LB	136	7145
	Floor brick	FB	3	686
	Drainpipe	DP	3	219
Unknown	Unidentified	UN	5	159

**Table 17:** CBM Quantities by Form

The Roman CBM included roofing and walling tiles, probable larger floor tiles, and several pieces from hypocaust systems. They indicate the presence of a substantial Roman building in the vicinity.

The distribution of CBM by feature type is shown in Table 18 (fragment count only).

<b>Feature</b>	<b>RBT</b>	<b>FLT</b>	<b>IMB</b>	<b>BOX</b>	<b>RT</b>	<b>RID</b>	<b>PAN</b>	<b>LB</b>	<b>FB</b>	<b>DP</b>	<b>UN</b>
SFB	338	30	30	2	10			1		1	1
Pit	237	26	20	1	57			48	2		
Post-Hole	60	9	9		11			20			
Well	155	30	31								
Ditch	191	16	16	3	91			44	1	2	3
Gully								3			
Slot	5	1		1							
Kiln	3	1			1						
Oven	3	1									
Layer	332	49	34	2	7	1	1	10			1
Track	5										
Unstratified	93	20	12	2	9			10			

**Table 18:** Distribution of CBM by Feature Type

Phasing information is not available at the time of writing, but it is probable that the majority of the Roman tile was deposited in Roman features. However, the table shows that large quantities were collected from Saxon SFBs and presumably other Saxon features. Whilst this may in part be due to redeposition from surrounding soil layers when the SFBs were eventually filled in, re-use of Roman tile in the Early Saxon period is a well-known phenomenon and it is likely that some of this material was used to line Saxon hearths and ovens. Later material from the SFBs is either intrusive or wrongly identified.

Post-Roman material is of less importance on this site, as the vast majority came from the overlying layers and was collected from the sample squares. However, some material was collected from features, where it may have been deliberately used as hardcore or disposed of as rubbish. In some cases it is almost certainly intrusive in earlier contexts.

### Statement of Potential

CBM from the non-square contexts is generally in good condition and unabraded. It requires full recording and analysis by fabric and form, and to be placed in context in terms of spatial distribution and site phasing.

CBM from the sieved squares was discarded at the assessment stage, and the only work required is to plot quantities by square using Vertical Mapper; the resulting plots should be included in the analysis and related to underlying features and non-square CBM distribution.

### Fired Clay

A total of 678 fragments (5836g) of fired clay was collected from the sieved squares. This material was only quantified and does not form part of the assessment.

In contrast with the CBM, the majority of fired clay was collected from features, not from the sieved square layers. The non-square assemblage consisted of 1770 fragments weighing 23991g. Table 19 shows the quantities by fabric group. A full catalogue by context is included as Appendix IV {E}.

Code	Description	No.	Wt/g
Calc	medium sandy with coarse chalk and occasional flint, red/buff, dense, well-fired	705	9875
calc2	medium sandy with chalk and very large rounded grey clay pellets, occasional red ?grog/ferrous fragments, underfired, pale pink or grey, soft	113	1681
calc3	medium sandy with chalk, grey clay fragments/pellets and flint, deep red, well-fired	49	431
Fs	fine sandy, few other inclusions	17	260
Fsm	fine sandy micaceous, with voids and occasional clay pellets, soft, orange-buff	222	1902
Ms	medium sandy, few other inclusions, red, may be very abraded late brick	1	4
ms1	medium sandy, poorly mixed red and white clays	21	400
ms2	medium sandy, buff, occasional flint	129	1980
Org	medium/fine sandy, grass/straw tempered with occasional larger inclusions, hard	512	7453
VHL	vitrified hearth lining, fabric uncertain	1	5

**Table 19:** Fired Clay Quantities by Fabric

The majority of fragments were amorphous lumps with roughly smoothed surfaces, most of which were probably broken fragments of oven domes. However, most of the fragments in Fabric 'org' were pieces of kiln lining and furniture (contexts 3951, 3953, 3995, 3996, 4018 & 4063). A few flat fragments (3194, 3495) may be pieces of render.

Feature type	calc	calc2	calc3	fs	fsm	ms	ms1	ms2	org	VHL
SFB	127	53	34	6	156			1	3	
Pit	363	8	7	4	10	1	7	90		
Post-Hole	18	1	6		3			1		
Well	26			2			1	2		
Ditch	67	3	1	3	18		10	27	5	1
Slot		1								
Oven	6				28			3		
Kiln	16			1				4	503	
Layer	60	42			4		1			
Track	1									
Unstratified	21	5	1	1	3		2	1	1	

**Table 20:** Fired Clay by Feature Type



Table 20 shows the distribution of this material by feature type (fragment count only).

The largest groups are from kiln and pit fills. It is interesting that the majority of the 'fsm' fabric came from SFBs, as similar material was found at the Roman and Saxon site at Bloodmoor Hill, Carlton Colville (Anderson forthcoming). A possible loomweight was identified in 0748.

### Statement of Potential

The fired clay has been recorded by fabric and in general the information is complete enough to be used for spatial and temporal analysis.

Fired clay from the sieved squares would benefit from assessment-type recording, and any further kiln material or recognisable objects should be identified.

CBM & fired clay; preparation of a report for publication

Further work is required on the kiln lining and furniture by a specialist in this field.

### Mortar & Related Material

Twenty-three fragments of mortar (342g) were collected from the sieved squares, and 46 fragments (1815g) from non-square contexts. Table 21 shows the quantities of mortar and cement collected from the latter. A full catalogue is presented as Appendix IV{F}.

Fabric	Description	No	Wt/g
pozz?	pozzolanic mortar?	3	2
flint	medium sandy lime mortar with coarse flint	1	35
fs	fine sandy lime mortar	2	380
fsc	fine sandy lime mortar with medium-large chalk pieces	1	64
msc	medium sandy lime mortar with medium-large chalk pieces	26	369
cement	modern cementitious mortar	12	464
concrete	modern concrete	1	501

**Table 21:** Mortar Types & Quantities

The majority of this material was post-medieval and modern and was collected from pits, ditches and layers. One fragment came from an SFB fill and may be of Roman date, or possibly fired clay with high lime content. There was a piece of moulded concrete in the form of a column capital or plinth in 2116, probably Victorian.

### Statement of Potential

A small amount of work is required to place the mortar into context, once phasing is available.

#### 3.2.1.4 Stone

##### Worked Flint (Sarah Bates)

##### Methodology

Each piece of flint was examined and recorded by context in an ACCESS database table. The material was classified by *category* and *type* (Appendix IV{C}.) with numbers of pieces and numbers of complete, corticated, and patinated pieces being recorded and the condition of the flint being

commented on. Additional descriptive comments were made as necessary. A small number of non-struck pieces of thermal origin were discarded during cataloguing.

### ***The Assemblage***

A total of 186 pieces of struck flint were recovered from the formally excavated features on the site (Table 22). In addition a further 278 pieces of struck flint (1.466 kg) were recovered from a disturbed Roman and Early Anglo Saxon occupation layer which was sampled in a series of 2 metres by 2 metres squares. This material was clearly unstratified and divorced from its primary context of deposition and, as a consequence, has not been included as part of this assessment.

<b>Type</b>	<b>Number</b>
Multi platform blade core	1
Single platform blade core	1
Single platform flake core	1
Core trimming flake	2
Flake	104
Blade-like flake	14
Spall	15
Chip	2
Blade	19
Bladelet	2
Scraper	2
Piercer	4
Awl	1
Spurred piece	1
Arrowhead	1
Polished axe	1
Hammerstone	1
Retouched blade	2
Retouched flake	2
Utilised blade	4
Utilised flake	6
<b>Total</b>	<b>186</b>

**Table 22:** Summary of Flint

The flint is mainly mid grey in colour with some darker pieces and some a paler, slightly brownish grey. Cortex, where present is mostly dark cream-coloured or off-white. There is little evidence for the use of already patinated flint although it seems likely that surface-collected nodules and gravel lumps were the main source of raw material. The condition of the flint is shown in Table 23. There is a relatively low percentage of cortical pieces (compared to other recently studied assemblages from Suffolk). This may possibly reflect the more careful use of cores and less the random use of small surface-collected fragments. Only four pieces exhibited hinge fractures.

<b>Condition</b>	<b>%</b>
Patina	19
Complete	60
Cortex	38

**Table 23:** Condition of Flint as % (by number) of Entire Assemblage

Three cores are present. They include a small squat flake core with flakes struck quite neatly from all around and from one end (4307), a multi platform core with blade and blade-like scars from several faces (0744) and an irregular single platform blade core (2262).

There are also two thick blade-like pieces with neat blade scars on their dorsal surfaces (0286 & 3620). They may represent the deliberate trimming of blade cores to rejuvenate their platforms.

Well over half of the flint consists of unmodified flakes and spalls. The flakes vary in nature from some quite neat thin pieces, some of them probably struck by soft hammer, to other thicker, more squat, pieces likely to be hard hammer struck. Some of these latter are more irregular in form although some of them are also quite neat in shape and probably came from more formal 'cores' rather than random lumps of flint gravel. Many of the flakes are quite small in size. There are a number of blade-like flakes; so-categorised either by their general shape or by the presence of blade-like scars on their dorsal surfaces.

Nineteen blades and two bladelets are present. A few have abraded platforms indicating the deliberate preparation of blade cores and some of the resulting blades are quite fine neat pieces. These are likely to be of Neolithic date. Several blades are patinated a bluish white or white in colour and although patina of this type does not necessarily indicate greater age, it is often the case that flints from the earlier Neolithic period, or earlier, are patinated in this way.

Two scrapers are present. One is very small, roughly ovate in shape, with retouch of its distal and right edges (0707). The other is relatively large and has a steeply sloping distal edge which is naturally 'scraper-like' but which has been accentuated by use – possibly by slight retouch (0201).

Six pieces have been classified as piercer type tools. Four of these have retouch of one or both edges to their distal points (3007, 3016, 3599 & 3814). A blade or blade-like flake has retouch of opposing edges at its proximal end forming a blunt-pointed awl (3132). A small flake has retouched forming a slight spur on its distal edge (0284).

A small bifacially fragment is probably the tip of an arrowhead (1359), possibly from a leaf-shaped piece of Neolithic date although it is not possible to assign such a small fragment to close type.

One end of a polished axe of probable Neolithic date is present (2297). The piece is heavily damaged, due in part at least to its having been burnt. It is broken approximately halfway along its length and both its faces are largely shattered. However most of the edges of the surviving part are still present and are ground.

A lump of flint, of thermal origin, has both ends and one edge battered as if used as a hammer (3026). The lump is also burnt.

Totals of four and ten other retouched and utilised pieces respectively are also present. One blade has neat retouch across its proximal end forming an asymmetrical point

(3058). The other pieces are of miscellaneous types with various degrees of modification to their edges. There are, however, several quite neat pieces.

### ***Potential for further analysis***

The flint indicates activity in the vicinity of the site during the prehistoric period and its nature, including that of one or two of the tools, suggests that some of it dates to the Neolithic period.

Total numbers of flints found in different types of excavated context are shown in Table 24. Detailed examination of the distribution of flint across the site and by feature has not been carried out at assessment and, although some features are clearly of later date, the flint might suggest the presence of features of prehistoric date. The identification of any concentrations of flint in particular areas may also suggest that activity occurred in those vicinities during the pre-Roman-British period.

Context type	Number
Ditch	45
Pit	40
SFB	31
Finds	24
Layer	16
Post-hole	13
Sample square	5
Kiln	3
Well	3
Oven	1
Slot	1
Track	1
?(unlisted)	3
<b>Total</b>	<b>186</b>

**Table 24:** Total Numbers of Flints by Context Type

The date of the features from which the flint came is unknown (by the writer) at assessment. From the site generally, however, where dating evidence is available it consists mostly of pottery of Romano-British date and it is known that excavated features also dated to the Early Saxon period (Stuart Boulter, *pers. comm.*). It seems most likely that much of the flint was residual in the contexts in which it was found. Further consideration of the flint in the light of dating evidence might, however, suggest that some of the flint was contemporary with the features from which it came and consideration of the flint by feature may result in the identification of similar groups of material the nature of which in turn may have some chronological interest or suggest something about the nature of their deposition.

### **Burnt Flint & Stone (Sue Anderson)**

Three hundred and seventy fragments of burnt flint and stone (7860g) were collected from 196 sieved square contexts. There were no large concentrations, the pieces occurred singly or in twos in more than three-quarters of these contexts.

Six hundred and twenty-two fragments of burnt flint and stone (22379g) were found in 126 non-square contexts. Sixty-eight of them had post-Roman finds dates, forty-

three of which were Early Saxon — thirty-one from SFB's 0285, 0699, 3001 and 3002 and nine from pits (0214, 0985, 2175, 3220, 3484 & 3559). The largest group of burnt flint (160 – 1687g) came from the fill of pit 2179 which had no other datable finds but was probably prehistoric.

### **Querns (Cathy Tester)**

#### ***Lava Stone***

One hundred and ten fragments of lava stone (5215g) were collected from twenty-six sieved square contexts. The material was quantified but has not been assessed.

A total of 430 fragments of lava stone (5590g) was collected from twenty-three non-square contexts in sixteen features — four ditches, two layers, five pits, a posthole, two SFBs, a well and one unstratified. All of the material is grey and vesicular and most likely of Rhenish origin and the fragments are assumed to come from manually-operated hand mills. Most of it is in poor condition — broken down and disintegrating into small and rounded fragments. In many of the contexts, they probably represent broken pieces of single larger fragments which themselves would only have been very small proportions of the original stones. Some pieces have complete measurable thicknesses but the surface dressing is most often worn off and only survives on a small proportion of them. In many contexts the lava stone was found with post-Roman finds as well as residual Roman finds but it is quite possible that all of these pieces come from Roman querns which have been redeposited or possibly re-used on this site. So far, there is no evidence for the use of querns during the Early Saxon period, and although the pieces *could* be medieval or later, their poor condition suggests that they are earlier.

#### ***Millstone Grit***

Two joining lower stone fragments of a Millstone Grit quern were found in layer 2160 (2153). The grinding surface has deep concentric grooves worn from use and the non-grinding surface is very smooth. Its date is uncertain, it could be Roman or medieval. Small fragments were also found in SFB 0285 (0286) and layer 0700 (0744) these pieces are more likely to be Roman than have been redeposited or re-used in later periods.

#### ***Puddingstone***

A fragment of puddingstone which may come from a rotary quern was found in layer 0617. The piece has no diagnostic features and its surfaces look naturally worn.

#### ***Statement of Potential***

All measurable dimensions and details of surface dressing, wear and any other notable features should be recorded for all querns. Since there probably is not much from the sieved squares that is measurable, it should not take too long to record them at the same time. It would be interesting to see if there is anything diagnostic or datable.

### **Slate (Sue Anderson)**

Sixty-nine fragments of roofing slate (295g) were collected from the sieved squares and nine (116g) from the non-squares. All are probably 19th or 20th century. The pieces from the sieved squares were discarded.

### **Coal (Sue Anderson)**

Two hundred and ninety-five fragments of coal and burnt coal (818g) were collected from the sieved squares and twenty-three (147g) from the non-squares. All coal was discarded.

### **3.2.1.5 Slag (Rebecca Slater & Gerry McDonnell)**

#### **Introduction**

##### ***Site Background***

Handford Road is a multi-phase site spanning the Iron Age to Early medieval periods. Some of the slag derives from securely dated second century AD contexts, but much of the material requires detailed phase analysis to assess the evidence for iron working in the different periods of the site. The material examined was hand recovered from excavation. Further material exists recovered from a sampling programme implemented across the site.

##### ***Aims & Objectives***

The three aims of the assessment of the slag assemblage were:

- 1 To establish which metalworking activities were present on the site.
- 2 To assess their significance.
- 3 To assess whether the assemblage requires further study, and if so to make recommendations for such work.

The aims will be achieved by morphological identification of the residues, and quantification by type and by context number. The results of the examination will be briefly discussed, and recommendations for further work outlined.

#### **Methodology**

The whole slag assemblage supplied from Handford Road, Ipswich was examined macroscopically and classified based on specific morphological criteria. The details of which are provided below. The weight and average size dimensions of each slag type present in each context were recorded. Weights were recorded using a digital scale and are accurate to 0.001kg, size measurements were recorded using a calliper and are accurate to 1cm. A standard horse-shoe magnet was used to test the magnetism of the samples.

Soil samples and dust residues in the sample bags were analysed for hammer scale by testing with a magnet.

#### **Slag Classification**

The whole slag assemblage supplied from Handford Road, Ipswich was examined macroscopically and classified based on specific morphological criteria. The details of which are provided below. The samples fall into two broad groups, first are the diagnostic ferrous material which can be attributed to a particular industrial process; these comprise ores and ironworking slags specific to iron working technologies, i.e. smelting and smithing slags. The second group are the non-diagnostic slags, these could have been generated by a number of different processes but show no diagnostic characteristic that can identify the process. In many cases the non-diagnostic residues, e.g. hearth or furnace lining, may be ascribed to a particular process through archaeological association.

A total assemblage weight of 75.21kg was examined. The total weight of each slag classification is given in Table 25. The full listing of the slag types by Context is given in Appendix IV {G}.

### ***Diagnostic Ferrous Slags & Residues***

#### **Ores**

No samples of iron ore were identified in the morphological examination of the Handford Road assemblage.

#### **Iron Smelting Slags**

No smelting slags were identified in the morphological examination of the Handford Road assemblage.

#### **Iron Smithing Slags**

**Hearth Bottom (HB)** (2.25kg) - A plano-convex accumulation of iron silicate slag formed in the smithing hearth. Dimensions are provided in Table 26.

**Proto-Hearth Bottom** (4.39kg) - A proto plano-convex accumulation of iron silicate slag formed in the smithing hearth. A proto-hearth bottom lacks all the characteristics of a complete hearth bottom.

**Smithing Slag** (56.55kg) - Randomly shaped pieces of iron silicate slag generated by the smithing process. In general slag is described as smithing slag unless there is good evidence to indicate that it derived from the smelting process.

**High iron content iron smithing slag** (5.06kg) - An iron silicate slag, with high density, and a strong response to a magnet indicating the presence of metallic iron.

**Hammer Scale** - There are two forms of hammer scale, flake and spheroidal. During heating a piece of iron may develop a thin skin of scale, which is predominantly iron oxide. This will break from the metal during hammering, and normally falls to the ground as small (usually less than 5 mm long) fish scale - like flakes. During fire welding, the mechanical joining of two pieces of metal at high temperature, the surfaces to be joined will have been cleaned by the addition of a flux (usually sand). The flux reacts with any scale present to form a thin film of liquid slag. When the pieces are hammered together the slag is expelled, and during flight forms balls of liquid slag (<10 mm diameter) and freeze. Both these micro-slags are generated during smithing, and are normally deposited around the working area (around the anvil). The presence of hammer scale is therefore a strong indicator that smithing (primary or secondary) was carried out on the site. Their small size precludes their hand recovery, and they are usually recovered during soil sample sieving (for environmental data). When hammer scale is recorded it is its presence in the soil deposited in the base of sample bags or in soil samples that is noted, the weight given includes soil and magnetic particles.

#### ***Non-Diagnostic Residues***

**Lining material** (6.96kg) - The clay lining of an industrial hearth, furnace or kiln which has a vitrified or slag-attacked face. It is not possible to distinguish between furnace and hearth lining. Many of the lining fragments were attacked by slag and some were grey in colour.

#### **Summary of Classification**

The Handford Road, Ipswich slag assemblage represents a typical iron smithing assemblage. It has a total weight of 75.21 kg. Iron smithing slag represented over

75% of the total assemblage, hearth bottoms and proto-hearth bottoms accounts for 8.8%, lining material represented 9.3% and high iron smithing slag represented 6.7%. Hammerscale was present in the soil in some of the sample bags. No evidence of smelting activity was identified within the assemblage. There was a significantly high amount of highly magnetic, heavy ironworking slag present in the assemblage perceived to have high iron content. This material would be particularly worthy of further investigation. The assemblage contained two large contexts (2883 & 3528) both recovered from ditch 2882. Initial indications suggest this context to be mid 2<sup>nd</sup> century in date. This analysis is a preliminary assessment of the Handford Road, Ipswich slag assemblage.

Smithing	Lining	High Iron	HB	PHB	Total
56.551	6.957	5.056	2.249	4.393	75.206

**Table 25:** Summary of Slag Weights (kg)

ID	Type	Dimensions (cm)	Weight
3370	HB	15, 7, 4	1.413
3637	HB	11, 7, 5 & 9 x 8 x 3	0.836

**Table 26:** Hearth Bottom Dimensions

### Statement of Potential

The Handford Road slag assemblage is a relatively small assemblage of slag in terms of weight, but offers an excellent opportunity to undertake detailed analysis of evidence of Romano-British blacksmithing craft, which is poorly understood.

To enable more significant discussion of the Handford Road, Ipswich slag assemblage, phasing information and distribution data is required. This information will enable the assemblage to be analysed for spatial and chronological identification of potential iron working foci. Such analysis would allow discussion of whether the assemblage is merely evidence of dumping, phases of recognisable activity, or a specific activity area that may represent a smithy.

Examination and classification of the material recovered by the sampling programme is also required.

If a specific focus of activity is recognised, serious consideration should be given to analysing environmental samples for hammer scale. Iron artefacts recovered from Handford Road, Ipswich should be assessed for the presence of bars, rods, blanks etc.

Further metallurgical analysis is recommended for the iron working slags of perceived high iron content, with samples of hearth bottom and smithing slag lumps analysed for comparison. Those slags with high metallic iron contents may be evidence of a specific process, such as bloomsmithing or fining of cast iron. Examination of the iron artefact assemblage would provide an opportunity to assess evidence for bar, scrap etc and select suitable artefacts for analysis. Analyses of stratified artefacts would enhance our understanding of Romano-British iron technology, of particular importance would be any bars, rods or blanks identified (possibly directly associated with the smithing activity and representing the stock irons of the smith), and edged tools.



### 3.2.1.6 Wood (Richard Darrah)

#### Introduction

Three oak timbers were extracted by machine from moist silts in a deep pit at Handford Road, Ipswich.

#### Results

- Post 3936 was fast grown boxed heart from a 0.3m diameter tree.
- Planks 3958 and 3937 were radially cleft pieces from a tree approximately one metre in diameter.



**Plate 8:** Roman Well Timber 3936

No surface details survive on any of the timbers except for the groove left by a saw cut on a decayed lap joint at the base of 3936 (Plate 8).

On the assumption that the stratigraphy restricts the structure to being either Roman or Anglo-Saxon, the presence of a saw cut on 3936 indicated this piece to be from the Roman Period when saws were in use. By association the two cleft pieces must also be Roman in date.

Although cleft timber goes on being used throughout the Roman period, in parts of South Eastern England its use is restricted to the first century AD. In rural Suffolk I would expect the availability and use of cleft timber from large trees to become increasingly rare during the second century AD. This would make the most likely date for the well to be pre 200AD.

As both 3958 and 3937 have sufficient rings to date by dendrochronology. I have taken dendrochronological samples from these. Neither of these samples have any sapwood or a heartwood sapwood interface, so the samples will only date the time at which they were growing, not when they were felled or the well was built. But if they can be dated they will provide a date after which the well structure must have been built. I would suggest that you send the two samples for dendrochronological dating. They will both enhance the dendrochronological data for East Anglian timbers, and allow you to date the well more accurately.

Both pieces of cleft timber are likely to have come from the same tree as they have similar growth rates, medullary ray spacing and ray thickness. The medullary rays are parallel indicating that the inner edge of the pieces was more than 0.25m from the centre of the tree.

#### Structural Evidence.

Roman wells fall into three groups (Darrah, 2003, Garton & Salisbury, 1995 & Wilmott, 1982),

1. Wells with corner posts held apart with spacers, and with horizontal planks on edge packed behind the posts.
2. Wells with corner posts framed together with spacers that are tenoned into mortises in the corner posts these have vertical planking nailed to the frame.
3. Wells made up of box sections, made from horizontal planks on edge, stacked on top of each other.

On the assumption that this was a well structure, it clearly had a corner post. As no nail holes or mortise holes were found in the surviving post, it is most likely that it had spacers at its base, on which the lap joint of the corner post rested. The cladding was probable horizontal cleft planking jammed behind the corner posts.

### **Statement of Potential**

Although the centres of the pieces of wood were in excellent condition allowing tree rings to be measured, no surfaces survive on any timber except near the Roman saw cut. Because of the poor surface condition all three timbers may be discarded except the dendrochronological samples. These samples should be sent for dendrochronological analysis.

#### **3.2.1.7 Dendrochronological Assessment (Ian Tyers)**

##### **Introduction**

Dendrochronology requires three specific features from samples for them to be of any use to us. The samples need to be species of wood for which appropriate reference data exists, or are a species to which we know dendrochronological techniques have been successfully applied. In the UK oak is the principal species that has been successfully used although some other hardwoods and some imported softwoods have also proven usable. They need to contain sufficient rings for us to have some expectation that the ring sequence within them may be uniquely matched against pre-existing data, typically this requires at least 50 annual rings, and significantly greater likelihood of dating occurs when 80 or more rings are present. Finally if the first two requirements are met there still needs to be reference data of both the area of origin, and the period of origin, with which the series must match before any dendrochronological date can be securely identified. Not all apparently suitable samples date even when the data sets are strongly replicated so it is not always possible to date material that appears otherwise suitable.

##### **Results**

Samples 3958 and 3937, from Handford Road, are of oak but each contains close to the minimum number of annual rings for analysis. The sequences fit together suggesting they are contemporary. However, it has not been possible to identify a reliable and replicated match for the combined sequence.

##### **Statement of Potential**

At present there is no potential for further analysis of the data and the samples have been discarded. The data that has already been generated will be retained and re-checked at intervals, should anything else be discovered in the future we will contact you.

### 3.2.1.8 Clay-Pipes (Sue Anderson)

Twenty-three fragments (89g) of clay tobacco pipes were collected from seventeen non-square contexts and 497 fragments (2063g) from the sieved squares. While unstratified, the large size, the group from the sieved squares would be suitable for specialist analysis and has been identified as having some regional importance. Dr D. Higgins states that- *'Not much has been written on Suffolk pipes and there do not appear to be any good published assemblages...'* (Higgins, 2003).

Although it is recognised that the material could be studied in order to help build a local typological sequence, it is not proposed that resources are used to undertake the further analysis at this juncture due to the unstratified condition of the majority of the assemblage. However, the archive will be available for future study.

### 3.2.1.9 Glass (Sue Anderson)

Two hundred and forty-nine fragments of glass (896g) were collected from the sieved squares. The material was quantified, but not assessed.

Nineteen fragments of glass (236g) came from the non-square contexts. Included in this collection were two small fragments of medieval window glass (0296 & 3504), three post-medieval (0726, 2118 & 2918) and two modern (2597 & 3094) window glass sherds. A small fragment of uncoloured vessel glass, possibly a wine glass, was post-medieval (0660). A moulded blue bottle fragment from 0660 is post-medieval and three green bottles and two blue square bottles, of 19th or early 20th century date were found in 0929. Modern bottles, one pale green (0291) and one pale blue (3431) were also collected.

## 3.2.2 Small Finds (all Faye Minter unless otherwise stated)

### 3.2.2.1 Introduction

A total of 1957 small finds was recorded from the evaluation and the excavation at Handford Road. An approximate breakdown of quantities of objects are presented by major chronological period in the table below.

Period	Count of OP/Small find no.s
Prehistoric	2
Iron Age/Roman	2
Roman	264
Anglo-Saxon	47
Medieval	32
Medieval/post medieval	14
Post medieval	45
Modern	7
Undated	1544
<b>TOTAL</b>	<b>1957</b>

**Table 27:** Small Finds by Major Chronological Period

### 3.2.2.2 Methodology

The assessment was undertaken by Faye Minter and is based on the small finds database which she recorded. Additional identifications and parallels have been provided by Ian Ridler (denoted by *IR*), who examined the bone and antler assemblage and the ceramic small finds. He has also made some valuable

observations on other finds of Roman and Saxon date. Jude Plouviez has provided additional comments on the coin assemblage.

The small finds from the excavation were recorded in the small finds table in the Microsoft Access97 database IPS 280.mdb with descriptions, dimensions and weights; any parallels found were also listed. The database includes 1932 small finds (finds from the 1997 evaluation have not been incorporated), including 244 coins, tokens and jetons. The majority of the finds are made of metal, 1263 are iron objects, 375 copper-alloy and 201 lead. Other materials listed are glass, bone, antler, horn, shale/jet, stone, flint and ceramics. The largest group amongst these is bone of which there are 32 items. The objects recovered from the evaluation have been briefly listed on a spreadsheet, and have been included in this assessment. Overall the small finds were in good condition, especially the coins and copper-alloy objects.

The small finds from the excavation have been grouped initially by period and then by function category (see below). As many of the small finds are not from excavated contexts they are often not described in detail in this assessment but can be found listed with brief identifications, if known, in the small finds database (Appendix V). More detailed descriptions are provided for identifiable objects and those from a secure context.

The Iron Age, Roman and early Saxon finds recovered from stratified deposits will form the most significant part of the small finds analysis. Many artefacts of medieval and post-medieval in date were metal detected from topsoil deposits or are stray finds and as such their potential significance is greatly reduced. In spite of this, some of them are intrinsically worthy of study, and may merit summary inclusion in the report, with illustrations. By contrast, other dateable artefacts e.g. Roman or Saxon may be effectively unstratified but can be associated with the site, and will therefore be included in the period discussion of artefacts.

### ***3.2.2.3 Summary of Artefacts by Period***

#### **Prehistoric**

##### ***Miscellaneous Tools***

Two flint tools were recorded in the small finds listings, SF 1425, a piece of an axe, and SF 1359, an arrowhead (see section 3.2.1.4).

#### **Roman (including Iron Age/Roman)**

In general chronological terms the small finds support the existence of a Romano-British settlement, with the earliest metal finds being two Iron Age/Roman copper-alloy brooches. Interestingly the Roman finds may also point to possible contact with, or presence of, the Roman army as a ballista bolt and military mount were discovered (the latter is circa 2nd century in date, although unfortunately from the topsoil sampling) as well as copies of the bronze coinage of Claudius I.

#### ***Coins (identified by Faye Minter, with comments by Jude Plouviez)***

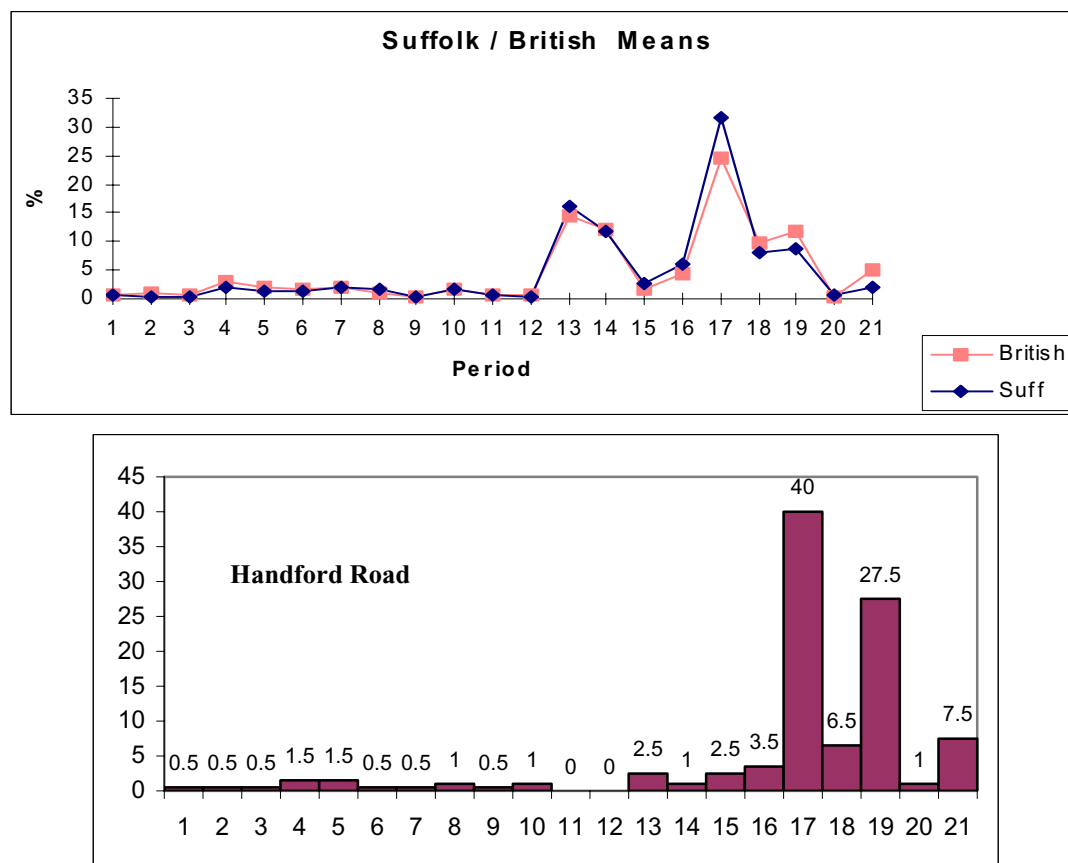
##### ***Methodology***

The coins were cleaned in distilled water where this helped legibility. All coins, jetons and tokens have been listed in a separate table (coins) within the IPS 280 database. This table includes separate fields for specific attributes (denomination, obverse/reverse details etc); most of the information has been copied into the main small finds table. Only silver coins were weighed (the weights listed for bronze

coins are inaccurate) but diameters were recorded. Coins were identified using standard available books, e.g. Reece and James 1986, but not to standard catalogue type (ie not LRBC ref).

### Results

A total of 231 coins of Roman date were recovered from the excavation and evaluation, with a date range spanning the period. There are no pre-Roman coins, although one Roman Republican denarius (OP 1654) was minted in the late 2nd century BC; these denarii were however still in circulation at the time of the conquest in AD43. There are in addition a few uncertain coins which are probably Roman. Nearly all the Roman coins were copper alloy, with only four made of silver (three denarii and a late siliqua).



#### Coin periods

1	up to AD43	8	161 to	180	15	296 to	317
2	41 to	54	9	180	192	16	317
3	54	68	10	193	222	17	330
4	69	96	11	222	238	18	348
5	96	117	12	238	260	19	364
6	117	138	13	260	275	20	378
7	138	161	14	275	296	21	388
							402

**Fig 13: IPS 280 Coin Percentages by Reece Period (total 200 coins)**

20 Roman coins derived from feature contexts rather than sieved squares and other layers. Seven of these were pre-AD200, deriving from an oven (OP 1711 in component 3405), pits (OP's 1691 & 1720 in 3619 & 3372) and ditches (OP's 1730, 1717, 1654 & 1718 in 3024, 3270, 3131 & 3457). Relatively, a smaller proportion of 4th century coins were from features: pre-AD 350 there were six from pits (OP's 1698 & 1662 from 3655 & 3213), ditches (1729, 1259 & 1210 from 3037, 0612 & 0241)

and an SFB (OP 1261 in 0699); the final six were from ditches (OP's 1740, 1268 & 1728 from 3856, 0687 & 3274), another SFB (OP 1602 in 3001), a post-hole (OP 1731 in 3944) and a slot (OP 1726 in 3510). From the relatively unmixed occupation layers 0700 12 coins ranged from the mid 3rd century to the end of the 4th/ early 5th century.

In order to examine the chronological significance of the assemblage as a whole the identifiable coins were grouped by Reece's 21 coin periods (Reece 1991, 2) (Fig. 13). 200 coins were immediately attributable to a period, a high percentage reflecting the good condition of most of them. An assemblage of 100 identified coins is usually a large enough sample to illustrate the pattern of coin loss for a site. The histogram style diagram below shows the percentages of coin loss for each period (along the x-axis); for comparison the two line graph below shows the British and Suffolk averages. The typical pattern has a relatively low number of pre-AD260 coins, a sharp increase in the later 3rd century (periods 13,14) followed by a very strong peak in the 330's (period 17) and a smaller one in the 360's (period 19). The IPS 280 coins show a fairly typical range of pre-260AD coins; the combination of a Republican denarius and a Claudius I copy as suggest activity from the middle of the 1st century (but not necessarily before c.AD65). Although the Claudius barbarous issues are related to military activity (eg Colchester, Kenyon 1987), they seem also to pass into more general circulation. It is in the 3rd century that the IPS 280 coins become anomalous: the numbers of post-260 radiates is so low as to suggest a lack of activity on the site at this time, since the numbers lost could still have been in circulation in the early 4th century. As a result the percentages of late coins are biased towards the 4th century, particularly the 330's and later. The group does not share the late 4th century decline common in south and east Suffolk assemblages (Plouviez 2004, 85), indeed it has a marked Valentinian peak and continues strongly up to the early 5th century when Roman coin imports to Britain cease. In this respect it is similar to the Castle Hill villa group from Ipswich. At least 63 of the 4th century coins had identifiable mint marks; an apparent scarcity of Siscia mint coins in the Valentinian group needs checking, and the overall pattern of sources could usefully be compared with other good 4th century groups from Ipswich (Castle Hill, Chantry). In the context of Anglo-Saxon activity at Handford Road it is interesting that only one coin was pierced for suspension, but other possible modifications could be checked for comparison with the high percentage of re-working noticed at West Stow.

### ***Dress Accessories***

**Brooches:** There are 9 brooches of Roman date including two which are Iron Age/Roman. Only 1 Roman and the 2 Iron Age /Roman brooches are from a secure context, the others are all from topsoil. One brooch was recovered from the evaluation, the remainder coming from the excavation. They are briefly described below:

SF 0103: Head-stud type, broken pin. Hinged, cast chair loop, cast headstud (with central dot; ?enamelled ring), traces of enamel (pale) in lozenges on bow. Flat-ended foot. From the evaluation.

SF 1386: Incomplete Bow brooch Hod Hill type with straight bow, 30mm in length. Traces of white metal coating. Roman 43-100AD (Plouviez, 2004, 90, fig 61, no 25), from topsoil 4031 (sieved square).

SF 1430: Foot of fantail brooch, triangular in shape with complete catch plate. 18mm in length, Roman in date from topsoil 4031 (sieved square).



**Plate 9:** SF 1569, Head Stud Bow Brooch

SF 1487: Bow brooch, Colchester derivative, double lug type, complete apart from missing pin, 34mm in length. Roman 43-80AD from topsoil 4031 (sieved square).

SF 1569: Head stud bow brooch measuring 37mm in length. Head stud is cast; Roman 43-200 in date from topsoil 4031 (sieved square).

SF 1580: Incomplete bow brooch Colchester derivative, double lug type, spring in situ pin missing, measures 19mm in length. Roman 43-80 AD in date from topsoil 4031 (sieved square).

SF 1677: Rosette type bow brooch, flat type, incomplete with cylindrical spring case and flat backed bow, missing the appliqué front, spring, pin and terminal end, 24mm in length. 1st century, from fill of ditch 3138, (Plouviez, 2004, 92, fig 62, no 57).

SF 1719: Complete Colchester type one piece brooch with short flat wings on a rounded section bow. The spring and pin are a continuation of the body and the chord is held by a hook, which also comes out of the body and is bent forward onto the bow. The spring has six coils with separate axis bar; the catch plate has three rectangular perforations through it. This brooch measures 50mm in total length. Iron Age-Roman 25-60 AD, from ditch junction, mixed junction 0201 (Plouviez, 2004 94, fig 63, no 63).

SF 1751: Catch-plate of Colchester derivative bow brooch, 24mm in length. 43-80AD from fill of pit 3961.

**Hairpins:** There is 1 definite Roman hairpin and 4 others which may be Roman or Anglo-Saxon in date. 3 of these have been catalogued below.

SF 1639: The incomplete shaft of a probable pin. The head is missing and the shaft has a circular cross-section and tapers to a point. It measures 63mm in surviving length and 2mm in width. This pin could be Roman or middle Anglo-Saxon in date as pins with circular cross-sectioned shafts occur in both date ranges. It is from well 3218.

SF 1658: Probable pin shaft, oval in cross-section missing head, tapers to a point at the complete terminal end. Measures 78mm in surviving length and 2mm in width. This pin shaft could be Roman or Anglo-Saxon in date and was found within SFB 3001.

SF 1686: Complete pin, the head is formed by two grooves cut into the top of the shaft. It has a circular cross-section and measures 126mm in length and 2.5mm in width. This pin is Roman in date (Cool, 1990, Group 5) and was found in the fill of ditch 3503.

**Beads:** 2 beads of probable Roman date were recovered as residual finds from an Early Anglo-Saxon context. These will be examined in more detail during the analysis stage of the project.

SF's 1787 & 1788: 2 small complete ?red glass beads, probably both Roman. Recovered from environmental sample of fill 3234 in SFB 3001.

**Bracelets:** 6 bracelets were found all of which are Roman in date. 3 were made of jet/shale and 3 of copper-alloy, and incomplete. All were from contexts or undisturbed subsoil. These have been catalogued below:

SF 1230: Shale/jet bracelet fragment, curvilinear rectangular cross-section, 31.9mm in length and 6.1mm in width, (Frere, 1972, Vol 1, p155, fig 57). From undisturbed subsoil 4031 (sieved square).

SF 1409: Bracelet fragment 3rd-4th century type, rectangular in shape and curvilinear measuring 27mm in length and 11mm in width. Front face is decorated with small transverse longitudinal border lines, incised crescent shapes then form two longitudinal row of small transverse lines again (Crummy, 1983). From layer in SE quadrant of excavated subsoil layer 0700.

SF 1414: Incomplete probable bracelet, band of the bracelet is narrow and rectangular in shape. It measures 3mm in width and has a flat D-shaped cross-section. The outer face is decorated with transverse grooves. Two bracelet fragments are joined at one point with a copper-alloy rivet. This bracelet is likely to be Roman and 3rd-4th century in date (Crummy, 1983). From layer in SE quadrant of excavated subsoil layer 0700.

SF 1652: An incomplete curvilinear bracelet with a oval cross-section, 40mm in surviving length, though bent, 4mm in width. One terminal of this bracelet survives and its front face is decorated with 17 transverse evenly spaced grooves, a small gap and finally two more transverse grooves at the tip of the terminal. Most likely to be late Roman in date (Crummy, 1983). From fill of well 3218.

SF 1704: Shale/jet bracelet fragment, curvilinear with rectangular cross-section. One complete ring and dot motif and one incomplete one survive on the outer face, 21.7mm in length and 6.8mm in width, (Crummy, 1983, 36-37, fig 38, no 1554-5), from fill of ditch 2061.

SF 4013: Shale/jet bracelet fragment, curvilinear oval shaped cross-section, 37.5mm in length and 7.9mm in width. From fill of ditch 3427.

### ***Toilet, Surgical or Pharmaceutical Instruments***

**Mirror:** 1 fragment was recovered.

SF 1760: Small irregular flat and corroded Roman speculum mirror fragment, 19mm by 14mm in size. From the fill of ditch 3711. Probably early Roman in date. (*IR*)

**Comb:** 1 fragment was recovered.

SF 1417: An end segment survives from an antler comb, allowing it to be identified as a late Roman type, with affronted horse heads running along the end of the segment. This was certainly an elegant comb, which has been expertly made (*IR*). Terminal fragment of the central toothed plate of a double-sided composite comb, 65.2mm by 23.5mm in size, two parallel central iron rivets remain in situ and hold a fragment of the front and back plates in place. From layer 2160.

### ***Household Objects***

**Keys:** 1 complete and 1 fragment were recovered.

SF 1405: Iron Roman key with missing handle and one surviving tooth, from excavated subsoil layer 0700.

SF 1600: Complete Roman key with two teeth, from the fill of pit 3079.

SF 1609: Complete Roman key from well 3218.

**Cleaver:** 1 was recovered.

SF 1725: Iron socketed handled cleaver, Roman in date (Manning, 1985, type 2), from fill of pit 3372.



**Handle:** 1 was recovered.

SF 1695: Bone handle, probably from a knife (*IR*). From the fill of ditch 3636.

### ***Furniture Fittings***

SF 1246: Semi-circular lathe-turned bone furniture mount, 37.1mm in length and 20.8mm in width. Outer face decorated with transverse grooves of varying depths (*IR*). From topsoil 4031 (sieved square).

### ***Buildings & Services***

**Marble facing:** Digital photographs of the 4 fragments of marble facing recovered from the site were sent to Dr David Williams at the University of Southampton. After studying the photographs he stated that “*1641 could be Roman. If this is so, the others are probably Roman as well, though it is more difficult to tell with the plainer pieces*”. Given that two of the marble fragments were recovered from secure archaeological contexts and the presence on the site of a large quantity of Roman ceramic building materials, almost certainly indicating the presence of a high status Roman building in the vicinity, it seems possible that they are all of Roman date.

SF-1764 and SF-1770 are from layer 0700 and measure 12.4mm and 11.6mm in thickness respectively, SF-1766, is from ditch fill 2131 and measures 11.9mm in thickness, and SF-1641, is from post-hole fill 2586 and measures 14.4mm in thickness.

**Window glass:** 1 possible fragment was recovered.

SF 1749: Fragment of window glass, 36.9mm by 13.9mm in size, green/blue in colour, possibly roman in date, unstratified context 0201.

### ***Objects Associated With Literacy***

**Stylii:** 1 complete example and 1 fragment were recovered.

SF 1396: Iron complete stylus, Roman in date, from the fill of ditch 2061.

SF 3155: Iron stylus, eraser end, Roman in date, from the fill of ditch 3127.

### ***Weights & Measures***

**Weights:** 1 example was recovered.

SF 1168: Steelyard weight, circular in plan, biconical in shape, measuring 32mm in diameter and 38mm in total height, it weighs 184.31g. Projecting from the centre of one tip is an iron loop, which is corroded. Roman in date and from topsoil 4031 (sieved square).

### ***Objects Associated With Transport, Agriculture & Animal Husbandry***

SF 1274: Iron lynch pin head, incomplete and Roman in date (Manning, 1985, p73, type 2b) from excavated subsoil layer 0700.

SF 1710: Possible iron ox goad, circular terminal with pointed tip, probably Roman, from fill of pit 3619.

### ***Military Equipment & Weaponry***

**Ballista bolt:** 1 example was recovered.

SF 1324: An iron ballista bolt head, complete and Roman in date from excavated subsoil layer 0700.

**Mount:** 1 example was recovered.

SF 1207: Cast open work decorative strap/belt mount probably related to Roman military equipment. Over all a roughly pointed oval shape measuring 35mm in length and 18mm in width, two parallel integral cylindrically shaped rivets are present at either end of the back face (Oldenstein, 1976, tafel 69-70), this mount is Roman and probably 2nd century in date, from mixed topsoil and subsoil 4031 (sieved square).

### ***Objects Associated With Textile Working (IR)***

**Bone needles/pins:** 2 complete examples and 3 fragments were recovered.

SF 1245: Bone pin/needle, point only. From undisturbed subsoil 4031 (sieved square).

SF 1410: Bone pin, Greep Type 1A, Early Roman. From fill of SFB 0699.

SF 1433: Terminal fragment of bone pin, 52mm in length, 4.1mm in width, circular cross-section. From fill of SFB 0699.

SF 1675: Bone pin/needle, point only.

SF 1773: Bone or antler needle, 67.8mm in length, and 3.7mm in width, circular cross-section. From fill of pit 3372.

### ***Bone & Antler Industrial Waste (IR)***

SF 1703: Unfinished bone pin with an accompanying stock, indicative of manufacture on site. From unstratified context 0201.

SF 1247: Fragment of bone waste, possibly Roman. If so, it suggests a more sophisticated level of manufacture than can be seen in the bone pins and handle. Lathe waste has been found on Continental Roman sites, but is comparatively rare in England. From mixed subsoil and topsoil 4031 (sieved square).

### **Saxon**

The small finds reflect the existence of an early Anglo-Saxon settlement, which may possibly continue into the early middle Saxon period. This part of the assemblage contains a particularly rich group of Anglo-Saxon bone and antler artefacts. Evidence of early Saxon textile working can be seen through the presence of tools such as needles, pin-beaters and spindlewhorls.

The number of identifiable copper alloy objects of early and Middle Saxon date is relatively small but it does include a number of significant items, particularly for the earlier centuries. Only one of three finger rings comes from a stratified context, and it is difficult to differentiate between Roman and early Anglo-Saxon examples. The stratified example (1147) was, however, recovered from an SFB fill and could be Anglo-Saxon on that basis.

A near complete copper alloy necklace (1603) is a significant find, given that it is a rare object type, usually discovered in cemetery contexts, as at West Stow (West 1985, fig 266.1). One example came from the nearby cemetery at Hadleigh Road, Ipswich (Layard, 1907, 335-6). In general they are not widely known and they have not been extensively discussed, although they have been briefly listed (Owen-Crocker, 1986, 57).

An incomplete girdle hanger (1101) also represents an object type well known from cemetery contexts, but extremely scarce in settlement deposits. A toilet set (1408) is incomplete and it can be compared with early Anglo-Saxon examples (MacGregor & Bolick, 1993, 216-7). Here again, the majority of examples have come from cemeteries, although part of a set was recovered from West Stow (West, 1985, 122 and fig 126.2).

A number of other items, including mounts and sections of copper alloy sheet, were recovered from SFB fills. Some of these are not readily identifiable whilst others may represent wooden vessel repair clips, fragments of strap ends and decorative strips. A small amount of metallurgical waste was recovered, most of which is unstratified.

Middle Saxon items are scarce. A complete pin from a well fill (1618) has a pierced discoidal head and a hipped shaft, the latter suggesting a date of c. AD 650 – 800. It can be compared with examples from Brandon and Ipswich, as well as further afield. A second, fragmentary pin (1639) came from the same context. A hooked tag (1014) could be of Middle Saxon date, although it could equally well be later; it does not come from a stratified context.

There is slight evidence from the bone and antler small finds of a Late Saxon or Viking presence on the site.

### ***Dress Accessories & Objects of Personal Adornment***

**Hairpin:** 1 Anglo-Saxon hairpin was identified for the assessment, although further analysis may confirm the identification and dating of 6 other possible Saxon pins.

SF 1618: Complete pin, flat roughly oval shaped head with central circular hole. Circular cross-sectioned shaft with swollen middle and tapering pointed terminal end. 117mm in total length head 12mm in width. The pin has a pierced discoidal head and a hipped shaft, the latter suggesting a date of c.AD 650 – 800. From fill of well 3218.

**Bead:** 1 Anglo-Saxon glass bead was recovered from layer NE quadrant of excavated subsoil layer 0700.



SF 1365: Complete glass bead, of traffic light type as defined by the combination of red, yellow and green, unusual in having a fairly dark green body, cylindrical, 18.3mm in length and 11.4mm in width. Yellow and red applied decorative trail. Anglo-Saxon and circa 5th century in date (B. Brugmann pers comm 2004 & B. Brugmann, 2004, 34-36 fig 119-126). There is at least one example from the Hadleigh road cemetery (Plunkett, 1994, 21).

**Plate 10:** SF 1365, Glass Bead

**Finger ring:** There are 3 copper alloy finger rings, none of which have so far been closely dated. 1 finger ring may be Roman or Anglo-Saxon in date:

SF 1233 Spiral band oval in cross-section, distorted measuring 18mm externally and 12mm internally. This style of finger ring can be found in the Romano-British and Anglo-Saxon 5th-6th centuries, it is impossible to separate the earlier examples from the later. (Macgregor & Bolick, 1993, p170, no 27.9), from SFB fill 0285.

**Necklace:** There was 1 Anglo-Saxon copper-alloy necklace found in context.



SF 1603: Incomplete necklace, flat curvilinear narrowing towards terminals. Front face decorated with longitudinal borders of tiny triangular indentations, within the borders is a longitudinal row of ring and dot motifs; there is a cluster of three ring and dot motifs at the centre of this, joined by grooves. Traces of possibly white metal coating also survive. Likely to be early Anglo-Saxon in date (West, 1985, FIG 266, 1). From the SW quadrant of SFB 3001.

**Plate 11:** SF 1603, Necklace

**Wrist clasp:** There was only 1 copper-alloy Anglo-Saxon wrist clasp from the site, which was from topsoil 4031 (sieved square).

SF 1248: A catch piece plate from a wrist clasp, rectangular in shape measuring 31mm in length and 28mm in width. Along the inner edge are four decorative rivets, traces of gilding can be seen on these. Two circular sewing holes can be seen in either corner of the outer edge. It has been examined by John Hines who believes that it is an unusual type B8 and of 5th century date (Hines, pers comm, 2004).

**Girdle hanger:** 1 incomplete copper-alloy Anglo-Saxon girdle hanger was identified from mixed topsoil and subsoil 4031 (sieved square).



**Plate 12:** SF 1248, Wrist Clasp

SF 1101: An incomplete girdle hanger.

The integral circular suspension loop is set at right angles to the plane of the shaft. The terminal of the shaft is missing due to an old break. The shaft is flat and rectangular with a swollen centre; it is decorated with longitudinal parallel rows of crescent-shaped indentations running for the first third of its length along either side of a central ridge. Below this the shaft flattens and the crescent shaped indentations continue as borders. Within the borders is an incised cross shape. The back face is undecorated.

**Hooked tag:** There was only 1 copper-alloy hooked tag of Anglo-Saxon date 600-1000; it was not within an excavated context.

SF 1014: Fragment of hooked tag. Head is circular and flat, 12mm in diameter with two parallel circular sewing holes at its top. It has a central circular perforation and around this there are four concentric circular ridges. The back face is undecorated and hook missing. From undisturbed subsoil 4031 (sieved square).

### ***Toilet, Surgical or Pharmaceutical Instruments***

**Combs:** 6 fragments have been identified, 4 of which, (1594, 1598, 1761 & 1765) may all stem from a single triangular comb with large, broad connecting plates embellished with sparse decoration of double framing lines. It is similar to an example from Pakenham (West, 1998, fig 121.5).



**Plate 13:** SF 1218, Double Sided Comb

SF 1218: Terminal fragment of a double-sided comb, one iron rivet holds central and outer plate fragments together, 34.1mm in length and 31.2mm in width, teeth incomplete and damaged, from SW quadrant of SFB 0285. This is similar to an example from West Stow (West 1985, fig 253.11) and is likely to be of sixth century date (*IR*). From the fill of SFB 0285.

SF 1594: Fragment of a single-sided composite comb, triangular in shape measuring 54.3mm in length and 39.8mm in width. Simple line decoration around edges of front face, two iron rivets survive. From NE quadrant of SFB 3001.

SF 1598: Fragment of single-sided composite comb, triangular in shape measuring 103.9mm in length and 39mm in width. The front face is decorated with simple line ornament around its edges; four iron rivets remain in situ. From NE quadrant of SFB 3001.

SF 1695: Probable incomplete connecting plate from a double-sided comb. Rectangular in plan with a D-

shaped cross-section, measuring 65.6mm in length, 18.7mm in width and 8.9mm in thickness. The rounded outer face has two rivet holes, one at either end with corroded iron within them, and is decorated with three lozenge shapes with vertical grooves within them. From fill of ditch 3503.

SF 1761: Fragment of a composite single-sided comb, part of the inner tooth plate, roughly rectangular in shape, 32.1mm by 19.8mm in size. One rivet hole is filled with iron corrosion remains and three incomplete teeth survive. From NE quadrant of SFB 3001.

SF 1765: Fragment of a single-sided composite comb, of triangular form, 80.8mm in length and 34.1mm in width. Simple line ornament can be seen around the edge on one face. Two iron rivets remain in situ, teeth missing, from fill in SE quadrant of SFB 3001.

### **Toilet sets:** Components of 2 toilet sets have been identified.

SF 1408: An incomplete Anglo Saxon toilet set, only the suspension loop and one toilet implement survive but there was likely to have originally have been several implements. The suspension loop is circular in shape and characterised with a slipknot, it measures 15mm in external diameter and 17mm in internal diameter. The single implement is attached to the suspension loop via an open loop. It appears to be a pick with a flattened rectangular shaped loop and a circular cross-section for the rest of its length. It tapers to a point and is slightly bent. It measures 64mm in length and 2.6mm in width, (MacGregor & Bolick, 1993, 216-217). From SE quadrant of excavated subsoil layer 0700.

SF 1689: Cosmetic scoop, probably from Anglo-Saxon cosmetic set. Perforated suspension lobe on the same plane as the shaft, shoulders one third of the way down the shaft, which then tapers towards its tip small circular indentation in centre of terminal. Measuring 70mm in length and 7mm in width (MacGregor & Bolick, 1993, 218). From upper fill of track 3299.

### ***Household Objects***

**Glass vessels:** 2 fragments were recovered.



SF 1279: Probable fragment of an Anglo-Saxon claw beaker, from SFB 0699.

SF 1723: Possible rim fragment, 20.8mm by 7.4mm in size, possibly Anglo-Saxon in date from fill of well 3218. Possibly from a palm cup or beaker. A number of glass vessels, including a palm cup, came from the Hadleigh Road cemetery (Plunkett, 1994, 33 and 36).

### ***Objects Associated With Textile Working***

There are many objects associated with textile working, including needles/pins and bone pin-beaters. Three of the needles have been made from pig fibulae, with heads cut from the distal end in each case. The weaving equipment includes two complete pin-beaters, both of double pointed type.

**Bone needles/pins:** 2 complete examples and 2 fragments were recovered.

SF 1213: Complete needle except for tip of shaft, with a triangular head with a circular hole through its centre. Measuring 160.3mm in total length, the head is 13.5mm in width and the shaft, tapering to a point, is 6.6mm in width at its widest point. Anglo-Saxon in date (West, 1985, EAA 24, Vol. 2, Fig 150, no 12) from SFB 0285.

SF 1215: Complete needle with triangular head with circular hole through its centre. 99.5mm in total length, head is 13.2mm in width and the shaft, which tapers to a point, is 5mm in width at its widest point. Anglo-Saxon in date (West, 1985, EAA 24, Vol. 2, fig 150, no 12) from SFB 0285.

SF 1597: Incomplete needle with its head damaged and incomplete. It measures 80.83mm in total length, shaft tapers to point, incomplete head would have been triangular in shape when complete with a circular hole through its centre, it is 8.8mm in width. Anglo-Saxon in date (West, 1985, EAA 24, Vol.2 fig 46, no 1), from SFB 3001.

SF 1675: Terminal end of possible pin/needle, 47.6mm in length, and 4.1mm in width, circular cross-section. Anglo-Saxon in date (West, 1985, EAA 24, Vol. 2, fig 61, no 11) from SFB 3001.

**Bone pin-beaters:** 2 complete examples and 1 fragment were recovered.

SF 1238: Bone pin-beater, single pointed. Late Saxon (*IR*). From mixed topsoil and subsoil 4031 (sieved square).

SF 1512: Complete pin-beater measuring 94.8mm in total length, 13.5mm in width at its widest point. It is lozenge shaped in plan and slightly irregular. Anglo-Saxon in date (West, 1985, EAA 24, Vol. 2 Fig 129, no 4-5), from SFB 2554.

SF 1659: Complete pin-beater 1.65mm in total length and 8.2mm in width at its widest central point. Anglo-Saxon in date (West, 1985, EAA 24, Vol. 2, Fig 129, no 4-5), from SFB 3001.



**Plate 14:** SF 1224 & 1260, Bone Spindle Whorls

SF 1661: Incomplete worked tool, 82.8mmx 10.1mm, with one tapering terminal decorated with transverse incisions on one face. The other terminal is missing and the object is roughly oval in cross-section and faceted. Possible pin-beater or textile implement probably Anglo-Saxon in date from fill of well 3218.

**Bone spindle whorls:** 2 were recovered.

SF 1224: Complete spindle whorl, circular in plan measuring 44.9mm in diameter and 20.8mm in thickness with flat underside and rounded top. It has a central hole, c10.1mm in diameter and is

decorated with three bands each of circumferential circles. Anglo-Saxon in date (West, 1985, EAA 24, Vol 2, fig 60 24), from SFB 0285.

SF 1260: Complete spindle whorl, 37.8mm in diameter and 20.8mm in thickness, flattened biconical in shape. Decorated with two bands, each consists of three circumferential grooves. Anglo-Saxon in date (West, 1985, EAA 24, Vol 2, fig 60 24), from fill of pit 0683.

**Ceramic spindle whorls:** The pot sherd spindle whorls are probably of Roman date, although they can occur in post-Roman contexts. The other examples include a whorl of biconical section (1590) and one of conical section (1217). Biconical ceramic spindle whorls occur in Iron Age contexts but the character of this example suggests that it is later in date. Both forms are well represented at West Stow (West, 1985, fig 30, 155 and 244-5), strongly suggesting that they are of early Anglo-Saxon date.

SF 1217: Fired clay spindle whorl, incomplete and cylindrical, 43mm in diameter and 25.4mm in thickness. Probably Anglo-Saxon in date (West, 1985, EAA 24, Vol 2, fig 245 no 5). From SFB 0285.

SF 1223: Complete flat circular ceramic spindle whorl created from reused Roman pot fragment, 44.8mm in diameter, Roman or Anglo-Saxon in date. From SFB 0285.

SF 1590: Fired clay spindle whorl, biconical c46.5mm in diameter and 21.3mm in thickness, Anglo-Saxon in date (West, 1985, EAA 24, Vol 2, fig 245, no 4). From SFB 3001.

SF 1645: Fragment of ceramic spindle whorl, reused Roman pot, Roman or Anglo-Saxon in date. From SFB 3002.

SF 1785: Ceramic spindle whorl created from a reused Roman pot base, 47.2mm in diameter. Roman or Anglo-Saxon in date from topsoil 4031 (sieved square).

SF 1786: Ceramic spindle whorl fragment, 38.5mm in diameter, probably reused Roman pottery. Roman or Anglo-Saxon in date from topsoil 4031 (sieved square).

**Lead spindle whorl:** A single example was recovered.

SF 3370: Conical spindle whorl with a central hole, measuring 20mm in width 13mm in height. Probably Anglo-Saxon in date. It can be compared to examples from Mucking (Hamerow, 1993, 65). From the fill of ditch 3345.

**Fired clay loomweights:** The 5 fragments of loomweight are all of annular type and early Anglo-Saxon date. Their original dimensions can be reconstructed, which should enable some estimate of their weight to be given when complete. The significance of the weights has been outlined elsewhere (Leary, 2003, 19-22).

SF 1782: Fragment of loomweight, 51mm by 35.5mm in surviving size, and two smaller possible fragments. Anglo-Saxon in date (Mainman & Rogers, 2000, 2532, 6585-6589). From SFB 3001.

SF 1783: Fragment of annular ceramic loomweight. Early Anglo-Saxon in date. From subsoil/topsoil 4031 (sieved square).

### ***Miscellaneous Tools***

SF 1418: Horn/antler probable tool, function unknown, incomplete and curving, measuring 139.1mm in length and 25.6mm in width. The tapering terminal end has a deep transverse groove cut across it. This tool could be Anglo-Saxon in date and is from subsoil layer 2160.

SF 1767: Antler pot stamp from excavated subsoil layer 0700, 105mm in length and 21.6mm in width at widest point, the tapering terminal end has a longitudinal groove down one edge. The fragment has a

single groove set into a curved face and it belongs with a group that consists otherwise of Middle and Late Saxon examples, from the Broch of Burrian, Canterbury, *Hamwic* and Norwich (Riddler, 1986, 19 and fig 2). On that basis it could be Late Saxon in date, although an earlier date is also possible (*IR*).

### ***Industrial Waste***

A small quantity of waste stems almost entirely from red deer antler had been dismembered by sawing and then snapping the central core, a common technique for this period (Riddler, 1996, 130-5).

SF 1221: Antler fragment with straight cut wider end and two opposing diagonal cuts at the other end. Measuring 71mm in length and 27.9mm in width at its widest point. Anglo-Saxon in date (West, 1985, Vol 2 fig 248, no2-3), from SFB 0285.

SF 1418: Antler tine. From subsoil layer 2160.

A number of additional bone and antler waste fragments were identified which may be Roman or Anglo-Saxon in date (*IR*).

SF 1247: Antler incomplete worked fragment/tine tapering to a point with a circumferential groove around the wider incomplete terminal. Possible lathe waste. Measuring 43.9mm in length and 13.35mm in width at its widest point. From topsoil 4031 (sieved square).

SF 1413: Narrow undecorated antler strip, Roman or Early Anglo-Saxon. From excavated subsoil layer 0700.

SF 1584: Long rectangular strip of antler waste, Roman or Early Anglo-Saxon. From SFB 3002.

SF 1769: Bone object partially worked, 62.5mm in length and 14.2mm in width. Hollow and with a deep circumferential groove 27.2mm from the end. From excavated subsoil layer 0700. Roman or Early Anglo-Saxon.

### ***Objects of Unknown or Uncertain Identification or Function***

SF 1661 Fragment of a decorated terminal of bone or antler. Late Saxon. From fill of well 3218.

SF 1772: Worked sheep metatarsus, 94.4mm in length, 10.5mm in width and 7.9mm in thickness. Rectangular in cross-section, from fill of pit 3372. Possibly Late Saxon.

### ***Medieval and post-medieval***

A large number of artefacts of medieval and later date were recovered from topsoil deposits. The copper alloy in particular, forms one of the largest categories by material, mainly due to the extensive use of metal-detecting. Those objects which could be identified and dated have been catalogued below:

#### ***Coins, Jetons & Tokens***

All the 24 post-Roman coins, jetons and tokens derived from sieved soil layers and recent contexts. They include four medieval silver coins, one penny and three cut halves, of 13th century date; 11 later coins, six jetons (mainly Nuremburg types) and three 17th century traders tokens.

#### ***Dress Accessories***

**Brooches:** 1 was recovered.

SF 1327: Annular brooch, circular frame measuring 19mm externally and 13mm internally, hoop is rectangular in shape. Complete cu pin remains in situ attached to the pin constriction via an open loop.



Front face of the frame is decorated V-shaped moulding and small circular dots. Medieval c11300-1450 in date, from topsoil 4031 (sieved square).

**Buttons:** There are 2 copper-alloy buttons, 1 from a context and the other from topsoil. Both are early post medieval in date.

SF 1024: Flat circular head, 21mm in diameter, rectangular attachment loop, post medieval in date from ditch fill of ditch 0241.

SF 1447: Cast in one button with a rounded globular head, 11.3mm in diameter, and an integral large perforated lug. Post medieval in date (Margeson, 1993 p21 no 103) from topsoil 4031 (sieved square).

**Buckles:** There are 7 copper-alloy buckle parts, consisting of 4 frames and 1 pin, 3 are medieval in date and 2 post medieval in date. There are also 2 copper-alloy folded sheet buckle plates, which are also medieval in date. None of these are from secure excavated contexts; two examples are given below. There are 7 iron buckle parts, 1 of which is from a secure context.

SF 1088: Oval shaped buckle frame with an ornate outer edge, which has a central constriction and a sheet roller, decorated with incised cross-hatching. Bar is offset and narrowed. 21mm by 20mm in size, medieval and c1300-1400 in date (Egan & Pritchard, 1991 p76-77), from mixed subsoil and topsoil 4031 (sieved square).

SF 1292: Folded sheet rectangular buckle plate, recessed to accommodate the missing frame, circular pin hole, three in situ copper-alloy rivets, one central one behind the pin hole and one in either corner of the attachment end. 33mm in length and 18mm in width, medieval and c1300-1400 in date (Egan & Pritchard, 1991 p110-114), from topsoil 4031 (sieved square).

**Strap fittings/mounts:** 2 were recovered.

SF 1332: Rectangular and open work cast probable sword belt fitting. One terminal is rectangular in shape with an integral loop projecting from one edge. The other has a central oval-shaped part with decorative notches and a circular perforation, it is waisted to either side of this. Measures 46mm in length 18mm in width, is post medieval in date and from topsoil 4031 (sieved square).

SF 1487: Corroded and worn, circular domed head, 15mm in diameter. On back face a rectangular loop, allowing a strap to be fitting through it, medieval or later in date, from topsoil 4031 (sieved square).

**Lace tag:** 1 copper-alloy lace tag was found, it has no context.

SF 1446: Tubular lace tag, oval cross section longitudinal edges do not quite meet. It tapers towards one end and is decorated with transverse grooves, post medieval in date (Margeson, 1993, 23). It measures 31mm in length and 3mm in width and is from mixed topsoil and subsoil 4031 (sieved square).

### ***Toilet, Surgical or Pharmaceutical Instruments***

**Toilet set:** 1 complete set and a toothpick were recovered.

SF 1252: Complete tooth pick, 38mm in length 4mm in width, flat with circular hole through suspension loop decorative transverse ridges below this and tapering to a sharp point. Originally part of a cosmetic set including the toothpick, tweezers and a scoop. Medieval in date similar to examples from London (Egan & Pritchard, 1991 377-379 no 1755), from topsoil 4031 (sieved square).

SF 1288: Toilet set consisting of complete toothpick, tweezers and ear-scoop, the latter is incomplete. All are held together via a copper-alloy rivet through their suspension lobes. Medieval in date similar

to examples from London (Egan & Pritchard, 1991 377-379 no 1755), from topsoil 4031 (sieved square).

### ***Household Objects***

**Glass vessels:** 1 fragment has been catalogued at this stage.

SF 1724: Fragment of possible vessel, as slightly curvilinear, 13.3mm by 13.9mm in size, most likely to be post medieval in date, from fill of pit 3372.

### ***Buildings & Services***

**Window glass:** 1 fragment has been catalogued at this stage.

SF 1212: Fragment of window glass, 25.6mm by 16.3mm in size, most likely to be post medieval in date, from fill of ditch 0241.

**Furniture fittings:** 1 was identified

SF 1044: Stud probably used for furnishings. Circular domed head, 17mm in diameter. Projecting from the centre of the back face is an integral spike with square cross-section tapering to a point. Post medieval in date (Margeson, 1993, p83, fig 48, no 528), from mixed topsoil and subsoil 4031 (sieved square).

### ***Recreational Objects***

There are 2 objects which are recreational, a toy modern copper-alloy cannon, from modern context 0317, and a bone counter from topsoil.

SF 1778: Rectangular bone mount 13.1mm by 14.5mm in size. Front face has an incised human face. Diagonal lines for hair, circular indented eyes, straight eyebrows and mouth. No parallel could be found for this probable gaming counter but it is perhaps most likely to be post medieval in date. It is from topsoil 4031 (sieved square).

### ***Objects Associated With Textile Working***

3 lead late medieval or post medieval cloth seals were also found, none of which have a context.

### ***Objects Associated With Literacy***

**Seal matrix:** 1 was recovered.

SF 1497: Copper-alloy seal matrix with fleur-de-lis open work handle and a circular die, measuring 28mm in height and 14mm in die diameter. The underside of die worn and image/lettering no longer clear. This seal matrix is likely to be late medieval or post medieval in date and is from topsoil 4031 (sieved square).

### ***Weights & Measures***

**Weights:** 1 was recovered.

SF 1517: Complete cup weight, circular in plan with a narrow base, hollow and measuring 14mm in height and 29mm in external rim diameter, it is 27.97g in weight. No visible decoration can be seen, it is medieval or post medieval in date (Biggs, 1992, 16). From topsoil 4031 (sieved square).

### ***Objects Associated With Agriculture, Horticulture, Animal Husbandry & Fishing***

**Bell:** 1 was identified.

SF 1496: Incomplete spherical or crotal bell, used as a stock bell. Rectangular integral suspension loop, circular body, measuring 38mm in total height and 32mm in diameter. The upper half of the bell has two opposing circular sound holes. Half of the lower half is missing due to old breaks and the

interior of the bell is filled with soil. There is a rectangular sound slot with circular terminals across the underside of the bell. This bell is post medieval in date (Margeson, 1993, 213-214, no 1760) and is from topsoil 4031 (sieved square).

### ***Military Equipment & Weaponry***

There are 5 post medieval lead musket balls from the topsoil.

### **Identified Objects of Uncertain Date**

A number of identified objects of uncertain date at the assessment phase are briefly catalogued below:

#### ***Dress Accessories***

**Buckles:** 1 fragment was identified.

SF 0741: Iron buckle pin, Roman or later in date from excavated subsoil layer 0700.

**Strap fittings/mounts:** There are 12 copper-alloy probable copper-alloy strap fittings/mounts, 8 are from the topsoil, 1 of which is a post medieval sword belt fitting, 6 are most likely to be Roman or later in date. There are 4 with secure contexts. There is 1 leather miscellaneous object of dress or personal adornment, which is from the topsoil.

SF 1357: Circular sheet mount with three evenly spaced rivet holes near its edges. Decorated with a impressed design consisting of a border groove a square within this and within the square an eight petalled flower with a circular centre. This design protrudes from the front face and is hollow on the back face. 17mm in diameter, possibly Roman or later in date from excavated subsoil layer 0700.

SF 1487: Corroded and worn, circular domed head, 15mm in diameter. On back face a rectangular loop, allowing a strap to be fitting through it, medieval or later in date, from topsoil 4031 (sieved square).

SF 1586: Riveted, folded, sheet strip, incomplete, presumably originally a strap fitting of some kind. 17mm by 9mm in size could be Roman or later in date, from fill of ditch 3024.

SF 1601: Several now separate and incomplete flat cu strips folded over and held together by corrosive products. Traces of circular rivet holes can be seen implying that the sheets originally functioned as a possible decorative strap fitting at some time. Could date from Roman period onwards. From SFB 3002.

SF 1646: Folded sheet strip, probable strap/belt mount, rectangular in shape, incomplete and bent. Two circular holes through the sheet, one larger central one and a smaller terminal end one, likely to be a rivet hole. It measures 29mm in length and 11mm in width, could be Roman or later in date and is from fill in SE quadrant of SFB 3002.

### ***Household Objects***

There are 19 non-iron objects which are related to the household, these include 7 probable cast cooking vessel fragments which could all be medieval or post medieval and date from circa 1300-1600 and are all from topsoil or modern contexts. One lead fragment, probably a pot mend may be earlier in date. There are 5 probable studs for attaching upholstery to furniture, all of which are post medieval and from the topsoil. There is also 1 incomplete shell, which is recorded under household objects as it is likely to be household waste, from a context and another scallop shell from modern well 0814.

**Vessels:** 1 has been included in this catalogue.

SF 1392: Probable lead pot mend date unknown, from SFB 0699.

### ***Buildings & Services***

There are 690 objects in total associated with buildings and services, 681 of these are iron objects, 201 of which have a context. 662 of the total iron objects are probable nails, of which 173 have a context; other iron objects include double looped spikes, staples and wall hooks.

There are 9 non-iron items associated with buildings and services; these include 1 fragment of window lead, from the topsoil, 4 probable window glass fragments, 3 of which have a context and 4 fragments of marble facing, all of which have contexts. The marble fragments have been provisionally identified as Roman in date, but it is possible that they are post-medieval.

**Window glass:** 2 were considered worthy of inclusion in the assessment catalogue.

SF 1232: Fragment of window glass, 21.2mm by 20.6mm in size, possibly Roman or Anglo-Saxon in date, from SFB 0285.

SF 1591: Fragment of window glass, 19.6mm by 15.1mm in size, and 1.8mm in thickness, Roman or Anglo-Saxon in date from SFB 3001.

### ***Objects Associated with Transport***

3 iron horseshoe fragments were recovered from topsoil (see equestrian objects category).

### ***Miscellaneous Tools***

There are 37 objects that are likely to be tools from the site. Of these 27 are iron objects, 10 of which are from a context. 23 of the iron objects are knives and the remaining objects include bars, hooks and miscellaneous tools. There are 10 non-iron probable tools, 6 of these are from contexts, and there is also 1 flint axe, which will be discussed within the flint report.

**Whetstones:** 2 have been identified.

SF 0121: Fragment of whetstone, probably sandstone, with several areas for sharpening. From the evaluation.

SF 1771: Incomplete fine-grained sandstone whetstone, rectangular in shape measuring 75mm x 22mm x 20mm in size. Possibly Roman or later in date from fill of pit 3372.

**Touchstone:** 1 possible example was recovered.

SF 1653: Fine grained black stone, roughly lozenge-shaped with straight ends, 61.4mm in length, 56.1mm in width at its widest point and 13.2mm in thickness. As it is so fine grained this stone could have been touchstone for precious metal, e.g. gold working. From upper fill of track 3299. This lozenge-shaped stone is as yet unprovenanced, although it may come from the Bristol area. Several touchstones have been recovered from Anglo-Saxon contexts, including examples from Canterbury and Winchester (Biddle, 1990, 76-8).

**Knives:** There are 20 probable iron knives from the site, 7 have a context. There is 1 iron knife with a bone handle and 1 possible bone handle, the first of which is from a context.



SF 1706: An unusual iron knife, complete but damaged, with a cylindrical bone handle, with decorative circumferential grooves. This knife measures 80mm in total length and c17mm in width.

**Plate 15:** SF 1706, Iron & Bone Knife

The iron blade has an iron tang running through the centre of the handle. The blade appears to be double edged and tapers to a point, it is 56mm in length and 21.5mm in width, no parallel has been found to date and further research is needed on this knife, it is from fill of pit 3771.

SF 1768: Incomplete worked antler handle, ends finished but object split longitudinally and less than half survives. It measures 64.9mm in length and 18.2mm in width. Roman or later in date and from excavated subsoil layer 0700.

SF 1779: Probable bone knife handle fragment, 38.1mm in length and 15.6mm in width. Outer face is decorated with ring and dot motifs. A fragment of corroded iron adheres to one terminal, probably from the iron tang of a knife. Possibly Roman or Early Anglo-Saxon, from topsoil 4031 (sieved square).

### ***Miscellaneous Fittings***

There are 35 fittings in total, 7 of which have contexts. 14 of these are iron, 5 of these have a context they include strips, hinges, rings and hooks. 21 copper-alloy fittings were found, of which 2 are from a context. The copper-alloy fittings include 2 chapes, 2 box fittings, 8 rings and 8 miscellaneous mounts.

### **Box fittings:** 2 were identified.

SF 1690: Incomplete originally circular object, consisting of a complete rim set at a 45 degree angle to the rest of the object, which is incomplete. There is a decorative groove at the angle and it has a white metal coating on its inner and outer faces. Likely to be a decorative box fitting, perhaps for the lid. It measures 36mm in length/diameter and 6mm in width. It is could be Roman or later in date and is from fill of posthole 3617.

SF 1081: A hinged box fitting open work in style. One terminal beyond the hinge consists of three triangular projections the two outer larger ones have circular rivet holes through their centres. The other terminal projecting from the opposing side of the hinge has an open work panel, which starts rectangular in shape and has a tapering triangular tip, beyond this is a worn and incomplete trefoil with a central iron rivet through it. It measures 30mm in length and 14mm in width and is likely to be post medieval in date it is from context layer 0317.

### **Scabbard Chapes:** 2 were identified.

SF 0686: Tubular sheet object roughly circular cross-section wrapped around its self with edges unsoldered. One terminal is open and the other has a circular fold, formed from the same piece of sheet and bent over to cover the open end. Possible simple folded chape, now distorted. Measuring 52mm in length and c6mm in width, most likely to be medieval in date from fill of pit 0685.

SF 1511: Incomplete folded sheet chape, squashed flat with terminal end incomplete due to old breaks. Triangular in shape with an oval cross-section measuring 35mm in surviving length and 19mm in width at the open end. The open end is concave and worn, there is a small rivet hole on either side of it and two parallel decorative grooves along the edge on the front face. Traces of solder can be seen on the back face where the two longitudinal edges of this chape were soldered together originally. Medieval in date from topsoil 4031 (sieved square).

**Rings:** There are 8 copper-alloy rings all of unknown function, many have hexagonal cross-sections and could have functioned as harness rings or perhaps crude buckle or brooch frames, all of the examples are likely to be medieval or later in date and are from modern layers or topsoil. One is listed below:

SF 1544: A cast ring with hexagonal cross-section measuring 27.5mm externally and 21mm internally, from topsoil 4031 (sieved square).

**Miscellaneous mounts:** 2 were identified.

SF 1195: Incomplete possible mount, probably originally lozenge shaped, only the centre and one terminal survives, the object this possible mount was originally attached to is unknown. The central fragment has a rounded boss on its front face, which is hollow on the back face. This mount measures 14mm in surviving length and 10mm in width, it is from topsoil 4031 (sieved square).

SF 1301: Roughly circular shaped probable mount, the object this mount was originally attached to is unknown. One edge is straight and may have been cut. There is a circular hole through this mount and traces of possible white metal coating can be seen on one face. 19mm in diameter, from topsoil 4031 (sieved square).

### ***Industrial Waste***

Apart from the antler and bone waste fragments listed as being Roman or Anglo-Saxon in date, there is a large quantity of possible lead industrial waste, (173 objects), and 7 copper alloy. There is also likely to be iron industrial waste but this is presently recorded under unknown or uncertain function until an iron specialist can examine it.

**Lead industrial waste:** 10 of the 170 lead irregular and incomplete fragments of possible industrial waste have contexts. Including SF 1219, from SFB 0285, SF 1258, from pit 2119, SF 1656, from SFB 3001, SF 1727, from ditch 3274, SF 1735 and SF 3965, from pit 3372, SF 1738 and SF 1739, from ditch 3643, SF 3026, from SFB 3002, and finally SF 3437 from posthole 3433.

**Copper-alloy industrial waste:** There are 7 copper-alloy cast irregular fragments of metal working debris only 1 is from a context the remaining 6 are from the topsoil.

SF 1721: Irregular fragment of metal working debris, roughly oval in plan, 27mm by 22mm in size, Roman or later in date and from fill of well 3218.

### **Unknown or Uncertain Function or Identification**

There are 578 objects of unknown or uncertain function in total, 515 are iron objects, 112 of which have a context. These objects are likely to include iron-working debris but currently remain recorded under category UN until they have been examined by a specialist. Of the 63 non-iron objects of unknown or uncertain function 18 have a context, 14 of these are copper-alloy, 2 are lead, 1 is bone and the final 1 ceramic. 47 of the total objects are copper-alloy, 9 lead, 3 bone, 1 ceramic and 1 leather.

**Copper-alloy:** 14 objects have been considered worthy of cataloguing at this stage.

SF 1214: Cylindrical flattened tubular and hollow, 34mm in length and 16mm in width, could be Roman or later in date and is from SFB 0285.

SF 1368: Long, thin cylinder, from SFB 0699.

SF 1421: Extremely damaged and corroded sheet fragment, 18mm by 13mm in size, from SFB 0699.

SF 1589: Extremely corroded fragment flat and roughly rectangular, 21mm by 12mm in size from SFB 3002.

SF 1595: Sheet incomplete but presumably originally square. Circular perforations arranged in 6 rows of 6 and small circular holes near to the edges of the object can also be seen. The latter were presumably to attach this object to something else. The larger holes could be functional, perhaps straining holes or decorative. This object could be Roman or later in date and is from SFB 3001.

SF 1604: Sheet fragments, damaged and irregular in shape date unknown, from fill of well 3218.

SF 1619: Rectangular damaged and incomplete sheet strip, 38mm in length and 9mm in width, date could be Roman or later, from fill of ditch 3125.

SF 1620: Rectangular sheet strip folded in half longitudinally. The folded edges do not meet. 59mm in length and 4mm in width, from fill of ditch 3125.

SF 1626: Unusual object incomplete consisting of a rectangular shaped arm with a decorative central longitudinal ridge along one face, projecting from one end of this arm at right angles another shorter arm is present with another rectangular arm projecting from the base of this. It measures 47mm in length, date unknown from fill of well 3218.

SF 1676: Sheet strip with hooked end, incomplete measuring 45mm in surviving length and 4mm in width, from SFB 3001.

SF 1688: Folded sheet fragment, function unknown, 24mm by 10mm in size, from fill of ditch fill 3457.

SF 1709: Folded rectangular shaped sheet strip. Two circular holes flank a central square hole at one terminal end and there is a central copper-alloy rivet through the other terminal end. 69mm in length and 21mm in width, from fill of pit 3665.

SF 1722: Rectangular strip with corroded copper-alloy concretion adhering to one terminal. Function unknown. 26mm in length and 6mm in width, fill of well 3218.

SF 1755: Worn and corroded fragment original function unknown. Rectangular in shape with triangular cross-section, traces of longitudinal decoration on the front face, from fill of posthole 2976.

**Lead:** 2 were recorded.

SF 1369, lead fragment from SFB 0699.

SF 3094, lead fragment from fill of pit 3093.

**Vessels:** 1 was recorded.

SF 1392: Probable lead pot mend date unknown, from SFB 0699.

**3.2.2.4 Statement of Archaeological Potential**

The excavation offers a valuable opportunity to investigate the area of the hinterland of Ipswich, to the west of the town centre near the river crossing, where only limited

archaeological work has taken place. Artefacts of early and middle Roman date have been identified at the nearby BT site, but there has been no proper excavation in the immediate area. An examination of the Roman coinage from Handford Road shows the frequency of very late coin types, which continue up to the early 5th century. By contrast, other artefacts such as the brooches appear to be mainly early in the Roman sequence. The Anglo-Saxon evidence provides a significant addition to our understanding of settlement at a time immediately prior to the expansion into a major trading centre of the adjacent settlement of Ipswich, and contemporary with the Hadleigh Road and Boss Hall cemeteries.

In the first instance an analysis of the securely stratified small finds will contribute greatly to establishing the chronology of the development of the site. This analysis will contribute to determining the dating and duration of the Roman settlement.

Further analysis of the small finds may contribute to distinguishing between the Roman and Early Saxon deposits, which is at the moment poorly understood.

A study of the spatial distribution of the artefacts may facilitate further understanding of land-use throughout the Roman and Early Anglo-Saxon periods.

A study of the Anglo-Saxon artefacts will contribute to refining the dating for this settlement. Initial investigation of some of the artefacts suggests that they date to the earlier part of the Anglo-Saxon period (late 5th-6th century). Few, if any objects of definite Middle Saxon have been identified, although there is a small amount of worked bone which could be Late Saxon in date.

The preservation of many of the artefacts is good. The overall assemblage can be discussed in terms of other groups of Roman and Early Anglo-Saxon date from Ipswich and beyond. An obvious source of comparison for the Early Saxon material is the Hadleigh Road cemetery site which is in the vicinity. Initial assessment has already indicated some object parallels between the two sites.

The metallurgical debris forms an important element of the finds assemblage, although the dating of this material is so far uncertain. Although the slag has been scanned separately for this assessment, it is likely that some of the iron fragments and possibly copper alloy recorded in the small finds listings may be related to the production of ferrous and non-ferrous artefacts. A total of 6 possible ingots have been provisionally identified. It is therefore important that the metallurgical specialist should see the iron, lead and copper alloy assemblage and extract any material that is of relevance for further study and possible analysis. One find of note is the touchstone (1653), which may suggest evidence of precious metalworking.

Although all small finds have been assigned to categories and briefly described for the small finds MS Access table, no spatial analysis has been carried out; there are clearly significant assemblages from the Anglo-Saxon sunken-featured buildings and doubtless other from other feature groups and layers. Parallels have been cited for some of the finds but many remain to be sought. Certain categories of finds need to be further examined by specialists for a final report. Further work is needed on these areas to draw conclusions regarding the relationship of the finds assemblage to the site and to seek more precise dated parallels. There is also scope to compare the



assemblage to other excavated Roman and early Anglo-Saxon sites in Ipswich. The small finds from the earlier Handford Road evaluation also need to be incorporated into the final report. Some X-rays, the cleaning and stabilisation of some finds and illustrations are also needed.

#### **3.2.2.5 Cleaning, Conservation & X-rays**

The majority of the small finds have not undergone cleaning or conservation, only the coins have been cleaned, to facilitate identification, with cotton buds and distilled water and are unlikely to need further work. The cleaning and stabilisation of all of the copper-alloy finds and several of bone objects is needed. In total 174 objects need cleaning and stabilisation, however, invasive conservation is unlikely to be needed as the finds are generally in good condition. None of the iron objects need any conservation, except for SF-1706, which has a bone handle and iron blade.

All of the copper-alloy non-coin finds need to be X-rayed. Many of the iron finds have been X-rayed, but several need re-doing to create multiple X-rays from different angles, those that need redoing have been highlighted in the small finds access table. The sample topsoil sieved square iron finds have not been X-rayed but after these have been scanned for industrial waste by a specialist and spatially orientated it may be that only some of them will need X-raying. For example those found in areas of probable iron working. None of the coins need to be X-rayed.

#### **3.2.2.6 Illustration**

At this juncture, there are provisionally 120 small finds which have been identified as worthy of illustration. Advice should be taken from the small-finds specialists, after they have examined certain categories of finds in more detail, before the final number of publication drawings can be decided. It is estimated that resources will be required to cover the illustration of 150 objects.

### **3.3 The Soil/Sediment Evidence (Richard Macphail)**

#### **3.3.1 Evaluation of a Monolith Sample**

##### **3.3.1.1 Introduction**

A 0.33 metre long monolith sample of linear feature 3299 at the Roman and Anglo-Saxon site of Handford Rd, Ipswich was received from Stuart Boulter (Field Team, Archaeological Service, Suffolk County Council). The enigmatic linear feature seems to respect the alignment of Roman ditches and apparently leads towards a well that seems to contain early Roman timbers. This monolith was examined (Hodgson, 1997).

##### **3.3.1.2 Results & Discussion**

Three layers were identified in the fill of 3299. The strong brown coloured medium sand at the base is probably of natural subsoil origin or the subsoil infill of this feature (layer 3, Table 28). This is consistent with an expected soil cover of brown sand soils (Newport soil series) within the Ludford soil association formed on glaciofluvial drift at Ipswich (Hodge et al., 1983); although there may have been areas of podzols at Ipswich by later prehistoric and Saxon times (Macphail, 1987). A middle fill of dark brown sand (layer 2) has been mixed into the subsoil (layer 3), probably by earthworm activity, and this suggests that the fill was not acidic and possibly nutrient-rich. An uppermost layer (1) of dark reddish brown sand, where artefacts are concentrated (Boulter, pers. comm.), appears to be humic *sensu lato*.

The linear feature is probably relict of the Roman and Anglo-Saxon landscape that now has been lost to more recent erosion and development of the area. The very dark uppermost fill (layer 1) may have been of wider extent, and related to Roman and Anglo-Saxon occupation. It is difficult to know whether the feature was originally natural or developed through possible traffic heading to and from the well, for example. There are no reported animal prints or obvious features that would clearly suggest that this is a hollow-way (Boulter, *pers. comm.*), and in fact the junction between the dark fill and the natural sands appears to be earthworm burrowed. On these parent materials it should be possible to differentiate between inputs of dung through animal passage and the simple infilling of a feature from occupation debris as in dark earth *sensu lato* (as carried out at Scole, Norfolk and Oakley, Suffolk). This can be done by measuring the relationships between inorganic and organic phosphate, levels of organic matter (LOI) and magnetic susceptibility, and amounts and types of inclusions and microfeatures found in thin section (Courty *et al.*, 1994; Engelmark and Linderholm, 1996; Macphail, in press; Macphail *et al.*, 2000; 2003).

### 3.3.1.3 Statement of Potential

It is suggested that a thin section be studied from the uppermost two layers, and that soil micromorphology is complemented by 3 bulk analyses (layers 1-3) for LOI, inorganic and organic fractions of phosphate and magnetic susceptibility (including fractional conversion data)(Crowther, 2003).

Relative depth	Description
0-0.07 m	Layer 1: Dark reddish brown (5YR2.5/2) structureless/massive, humic, mainly medium sand with few small stones – flint and rare rubefied material; abrupt, wavy boundary to:
0.07-0.18(0.25) m	Layer 2: Dark brown (7.5YR3/2) structureless/massive, moderately humic, mainly medium sand with few small stones; clear, irregular boundary (including 10-15 mm wide probable earthworm burrows) to:
0.18(0.25) – 0.33 m	Layer 3: Strong brown (7.5YR5/8) structureless/massive mainly medium sand with few small stones.

**Table 28:** Description of Monolith Sample of Linear Feature 3299 (Fill 3301)

## 3.4 The Biological & Environmental Evidence

### 3.4.1 Animal Bone (Julie Curl)

#### 3.4.1.1 Summary

A total of 154.023kg of faunal remains, comprising of 18,062 pieces, was recovered from excavations at Handford Road, Ipswich. Contexts were selected for assessment, the examination of these produced remains of cattle, pig, sheep/goat, deer, bird and other mammal bone. The assemblage includes a wide range of butchering, as well as evidence of bone, horn and antler working.

#### 3.4.1.2 Methodology

The aim of this assessment was to briefly scan as much of this material as possible within the limited time available. No dating was available at the time of the assessment, although many large quantities of bone were recovered from fills of an SFB, indicating a Saxon date for much of the faunal remains although material was recovered from features associated with all of the phases represented on the site. Where possible, larger contexts were chosen to hopefully give a better range of bone within one bag.

Bone selected for assessment was examined and recorded for assessment using a modified version of a system devised by Simon Davis' for recording faunal assemblages (Davis 1992). Each context chosen was sorted into immediately identifiable species. Contexts totals were recorded for each species and the number of measurable and countable elements present were also recorded. A note was also made of any other useful information such as types of elements present, butchering or other modifications, pathologies or bone/antler/hornworking. All information was recorded on the faunal remains recording and assessment sheets along with total weights for each context.

### **3.4.1.3 Quantities Assessed**

The whole faunal assemblage consisted of a total of 154.203kg of bone. Of this total, 30.663kg of bone was examined for the assessment; the amount of bone assessed amounted to 20% of the assemblage (Table 29).

<b>Context Type</b>	<b>No</b>	<b>Wt/Kg</b>	<b>% Wt</b>
SFB	3586	25.914	84.5
Pit fills	294	4.310	14.0
Trenches	4	0.117	0.5
General finds	19	0.322	1.0
<b>Totals</b>	<b>3903</b>	<b>30.663</b>	<b>100%</b>

**Table 29:** Quantities of Assessed Bone by Context Type

### **3.4.1.4 Results & Discussion**

#### **By context type**

##### ***SFB's***

The majority of the assessed bone was recovered from the fills of SFB's, which accounted for 84.5% of the assessed material. The SFB fills contained all of the ten species (or groups) identified during the assessment. There is a wide range of material in the SFB fills, with both primary and secondary butchering and working waste being present. This material included evidence of skinning, horn and antler working and a variety of food waste.

##### ***Pit Fills***

Two pit fills 2172 & 3114 were examined during the assessment. Pit 2172 contained mostly secondary butchering and food waste and some primary butchering elements. The lower fill (3114) of Roman pit 2915 was interesting as this contained and almost complete juvenile skeleton, which on initial examination, does not appear to be butchered. The burial of any whole and un-butchered animals is interesting and may possibly indicate ritual activity. It is possible that the burial of a whole juvenile cow may have been from a natural death where it was considered best not to use the animal for meat, which would at least indicate that cattle were bred on site.

##### ***Trench Fills***

Few faunal remains from trench fills were examined during the assessment. A small quantity of bone from 0822 was scanned, which produced small quantities of butchered cattle and pig. Remains included a chopped cattle horncore, which may indicate hornworking waste.

##### ***General Finds Contexts***

Material from 0284 was examined as it contained antler fragments. This context produced butchered cattle and a hoof from a small species of equid. Sawn antler fragments, including a tine, were noted and obviously evidence of antler working at this site.

## **Summary of Species Present**

### ***Cattle***

The most frequent species identified during the assessment of this assemblage is cattle, which were represented by three-hundred and twenty-one immediately identifiable pieces. Both adult and juvenile cattle were present, particularly interesting is the presence of a juvenile cow buried in a pit fill 3114. Initial examination of butchering suggests skinning, hornworking and consumption of good quality cuts of meat; slightly higher numbers of primary butchering waste bones were noted in the assessed material, this may indicate that some of the main meat bearing bones were taken elsewhere for consumption. While measurements were not taken at this stage, some small adult cattle bones were noted, suggesting keeping of the Dexter breed of cattle at this site. Some pathologies on cattle bones were observed during the scan, which may indicate husbandry practices.

### ***Pig***

Pig were the second most common species and equid the third most frequent. Both primary and secondary butchering and food waste was noted in roughly equal numbers with the assessed material, initially suggesting that the whole animals were prepared and consumed on site. The presence of a neonatal piglet could suggest that pigs were bred at this site. Pathological bone was noted with the pig remains which may give further information about the husbandry and health of these animals.

### ***Sheep/Goat***

Surprisingly, sheep/goat were only the fourth most frequently identified species, this species is usually much more common. It is possible that the remains of the sheep had not been deposited with the material assessed, or that they had been kept, processed or consumed elsewhere. The small quantity of sheep bone identified during the assessment does include a neonatal bone, which would normally suggest that they are bred on site.

### ***Equid***

Several equid bones were identified during the scan. Most remains were of teeth and footbones. One scapulae was recovered from pit fill 2172 which may have been butchered. It is possible that equid remains were at least skinned at this site and the meat may have been consumed by domesticated dogs or people.

### ***Bird Bone***

Several bird bones were recovered from the SFB fills, but most needs further identification to species. Goose was positively identified at this stage and the remains probably include domesticated fowl or pheasant. Several of the bird bones had been butchered.

### ***Other Species***

Other species include deer, and canid bone, see Table 30 for details of species and quantities. During the assessment antler working waste was positively identified and one Red Deer radius, the assessed material does include a possible deer molar. Further analysis of the whole assemblage may produce more post-cranial material from cervids. Canid remains include an elderly individual, which probably indicates a domesticated animal. Sparse remains of fish were found in the SFB fill 3016,

although not identified to species at this stage. A humerus was recovered from 3016 that has characteristics of a feline humerus, but is rather large and robust; this bone will need further identification as it may be from a species such as Otter.

Species/Group	Finds/Not specified	Pit	SFB	Trench	Total of species/group
Bird			12		12
Canid			3		3
Cattle	132	7	180	2	321
Deer (Red & Roe)	2		5		7
Equid	1	2	16		19
Feline?			1		1
Fish			2		2
Goose			2		2
Mammal	13	154	3275	1	3443
Pig		2	111	1	114
Sheep/Goat			11		11
<b>Totals</b>	<b>148</b>	<b>165</b>	<b>3618</b>	<b>4</b>	<b>3935</b>

**Table 30:** Species Quantities by Context Type

All of the species (and groups, such as those simply identified as 'bird') were recovered from the SFB fills, with species such as sheep/goat, ?feline, canids, fish, goose, these were only observed from SFB fills and not from other features during the assessment.

#### **3.4.1.5 Overall Conclusions & Recommendations for Further Work**

The bulk of the assemblage appears to be derived from SFB fills and includes a good range of butchering and some working waste. The frequency of species in the assessed material is interesting, particularly the lower numbers of sheep/goat, although this may change when the rest of the assemblage is examined.

Full examination of the Saxon material is recommended, with measurements of bones where appropriate to allow for analysis of stature and species present. Analysis of butchering will help to determine if equids were skinned/consumed and to determine if the main domestic food animals were processed and consumed fully on site or if at least some of the meat could have been consumed elsewhere. It would be worthwhile examining the pathologies of the domesticated food animals to help determine uses and animal husbandry.

Bone and antler working is evident at this site from the antler working waste in the faunal assemblage and the numerous bone artefacts recovered. Fragments of bone in the faunal assemblage should be checked for modifications as they may be working waste.

Proper examination of the almost complete juvenile cow skeleton in pit fill 3114 is recommended. The burial of whole and un-butchered animals is interesting, especially if this was found articulated, it may be part of ritual activity and this find should be compared with other sites locally and nationally.

### **3.4.2 Environmental Evidence (Val Fryer)**

#### **3.4.2.1 Assessment of Charred Plant Macrofossils & Other Remains**

##### **Introduction**

Excavations at Handford Road Ipswich, undertaken by the Suffolk County Council Archaeological Service in 2003, revealed a series of features of Late Iron Age, Roman, Early Saxon and medieval date including pits, ditches, wells, ovens and sunken featured buildings. Samples for the extraction of the plant macrofossil assemblages were taken from across the excavated area, and sixty-eight were submitted for assessment (Appendix VI).

##### **Methodology**

The samples were processed by manual water flotation/washover, and the flots were collected in a 500 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains noted are listed on Tables 31-38. Nomenclature within the tables follows Stace (1997). With the exception of very rare mineral replaced seeds, all plant remains were charred. Modern contaminants including fibrous and woody roots and seeds were present throughout.

The non-floating residues were collected in a 1mm mesh sieve and sorted when dry. Artefacts/ecofacts were removed for further specialist analysis.

##### **Results of Assessment**

###### **Plant macrofossils**

Cereal grains/chaff, seeds of common weed plants and tree/shrub macrofossils were present at a low to moderate density in all but seven samples. Preservation was generally poor; a large number of the grains and seeds were puffed and distorted (possibly due to high temperatures during combustion), and material was also fragmented and abraded. As a result of this, a high proportion of the cereal grains was not closely identifiable.

###### **Cereals & other food plants**

Oat (*Avena* sp.), barley (*Hordeum* sp.), rye (*Secale cereale*) and wheat (*Triticum* sp.) grains were recorded from thirty five samples, although frequently as single specimens within an assemblage. With the exception of sample 3953 (from kiln [3952]), chaff was extremely rare. Spelt wheat (*T. spelta*) glume bases were recorded from samples 0234 and 3980 and a single bread wheat (*T. aestivum/ compactum*) type rachis node was noted in sample 3202. In contrast, the assemblage from sample 3953 was largely composed of chaff, with wheat (including spelt) glume bases and spikelet bases being particularly abundant.

Other potential food plant remains occurred in only two samples; fragments of sloe/damson (*Prunus* sp.) type fruit stone were noted in sample 0918 and two mineral replaced apple/pear (*Malus/Pyrus* sp.) type 'pips' were found in sample 3234.

###### **Wild flora**

Weeds seeds were very rare, occurring at an extremely low density in only twenty two samples. Most were of common segetal species including stinking mayweed (*Anthemis cotula*), cornflower (*Centaurea* sp.), black bindweed (*Fallopia convolvulus*), goosegrass (*Galium aparine*), wild radish (*Raphanus raphanistrum*), dock (*Rumex* sp.) and vetch/vetchling (*Vicia/Lathyrus* sp.), although grasses (Poaceae) and grassland herbs (including ribwort plantain (*Plantago lanceolata*), buttercup (*Ranunculus* sp.) and mallow (*Malva* sp.) were also recorded. Nutlets of

sedge (*Carex* sp.) and spike rush (*Eleocharis* sp.), which are both wetland species, occurred as single specimens in samples 3953 and 0289. Hazel (*Corylus avellana*) nutshell fragments were recorded from a total of thirty four samples.

#### ***Other plant macrofossils***

Charcoal fragments were common or abundant throughout. Other plant macrofossils were rare, but did include pieces of charred root/stem and indeterminate buds, fruit stone fragments and seeds. Heather (Ericaceae) stem fragments were noted in samples 3225 and 3227.

#### **Animal macrofossils**

Bone fragments (some of which were burnt) and small mammal/amphibian bones were recorded from most features, although at the time of writing it is far from clear whether these are contemporary with the contexts or intrusive from later activities on the site. Fish bones (mostly vertebrae) were recovered from nineteen assemblages and fragmentary marine mollusc shells (probably mussel (*Mytilus* sp.)) were found in samples 0234 and 3948.

#### **Other materials**

Small fragments of black ‘cokey’ and tarry material, coal and vitrified globules were present throughout. Although some pieces of the ‘cokey’ material may be derived from the combustion of organic remains at very high temperatures, much of this material is assumed to be intrusive within the features. Ferrous globules were also reasonably abundant, although it has yet to be established whether these are contemporary with the features. Hammer scale was rare, occurring in only four samples. Two tubular glass beads (possibly yellow in colour) were recovered from sample 3234, and a possible fragment of red/brown painted wall plaster was noted in sample 3223.

#### **Discussion**

For the purposes of this discussion the material will be dealt with by period and feature type. Assessment of the samples has shown that all assemblages appear to be heavily contaminated with modern ‘industrial’ refuse including coal, coke and tarry/vitreous residues. The degree of contamination of the charcoal assemblage has yet to be established.

#### ***The Late Iron Age/Roman features (Tables 31 – 32)***

Seven samples were taken from fills within well 3218 (Table 31).

Although charcoal fragments are relatively common, charred plant remains are rare, and it would appear most likely that all are derived from scattered or wind-blown detritus, which accidentally became incorporated within the fills. A further three samples are from features of probable 1st – 2<sup>nd</sup> century A.D. date (Table 32). The assemblages from pits 0233 and 2107 are similar to those from well 3218 in that they are probably derived from a low density of scattered refuse. The assemblage from sample 3301 from track 3299 contains only a hazel nutshell fragment and small pieces of charred root stem.

Of the later Roman (2<sup>nd</sup> – 3<sup>rd</sup> century) assemblages, sample 3953 from the fill of kiln 3952 is of particular interest. Wheat chaff is particularly abundant, and this would

appear to indicate that either the kiln was being utilised for the parching of grain prior to threshing or, perhaps more likely, that cereal processing waste was being used as kindling/fuel for the firing of the kiln. The latter practise has numerous contemporary parallels within the eastern region. The presence of wetland plant remains within this assemblage may indicate that some cereals were being grown on areas of newly cultivated marginal damp ground. The remaining four assemblages from the phase II.b. features contain insufficient material for accurate interpretation.

#### Key to Tables

x = 1 – 10 specimens    xx = 10 – 100 specimens    xxx = 100+ specimens

m = mineral replaced    b = burnt    tf = testa fragment

ph = post hole    SFB = sunken featured building

Sample No.	3224	3233	3251	3283	3284	3302	3320
<b>Cereals</b>							
<i>Hordeum</i> sp. (grains)			x				
<i>Triticum</i> sp. (grains)			x				
Cereal indet. (grains)	x						x
<b>Herbs</b>							
<i>Anthemis cotula</i> L.	x						
Caryophyllaceae indet.			xcfm				
<i>Ranunculus</i> sp.			xm				
<i>Rumex/Carex</i> sp.	xm		xm				
<b>Tree/shrub macrofossils</b>							
<i>Corylus avellana</i> L.	x	x		xcf	x	x	
<b>Other plant macrofossils</b>							
Charcoal <2mm	xxx	xxx	xxx	xx	xxx	xxx	xxx
Charcoal >2mm	xx	xx	xx	x	x	x	xx
Charred root/rhizome/stem		x		x			x
Indet. seeds	xm	xm	xm				
<b>Animal macrofossils</b>							
Bone	x xb	x	x	x	x	x	x
Fish bone	x					x	
Small mammal/amphibian bones	x	x	x	x	x	x	
<b>Other materials</b>							
Black porous 'cokey' material	x	xx	x		xxx	xx	
Black tarry material	xx	xx	xx	xx	xx	x	x
Burnt/fired clay	x			x			
Ferrous globules	x	x	x	x	xx	x	x
Hammerscale	x	x					
Small coal frags.	xx		xx	x	xx	x	
Vitrified material	x				x		
<b>Sample volume (litres)</b>	<b>16</b>	<b>32</b>	<b>16</b>	<b>16</b>	<b>32</b>	<b>16</b>	<b>16</b>
<b>Volume of flot (litres)</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table 31:** Charred Plant Macrofossils & Other Remains from the Late Iron Age/Roman Well 3218



**Key to Tables**

x = 1 – 10 specimens    xx = 10 – 100 specimens    xxx = 100+ specimens

m = mineral replaced    b = burnt    tf = testa fragment

ph = post hole    SFB = sunken featured building

Sample No.	0234	2108	3301	0688	0923	2553	2883	3953
Context type	Pit	Pit	Track	Ditch	Pit	Ditch	Ditch	Kiln
Feature No.	0233	2107	3299	0687	0922	0872	2882	3952
Phase	II a	II a	II a	II b	II b	II b	II b	II b
<b>Cereals</b>								
<i>Avena</i> sp. (grains)								x
(awn frags.)								x
<i>Triticum</i> sp. (grains)						x		x
(glume bases)								xxx
(spikelet bases)								xxx
(rachis internodes)								x
<i>T. spelta</i> L. (glume bases)	x							xxx
Cereal indet. (grains)					x	x		x
(sprout frags.)								x
<b>Herbs</b>								
<i>Plantago lanceolata</i> L.		x						
Small Poaceae indet.	x	x						
Large Poaceae indet.								x
<i>Rumex</i> sp.	x							x
<i>Veronica hederifolia</i> L.		x						
<b>Wetland plants</b>								
<i>Carex</i> sp.								x
<i>Eleocharis</i> sp.								x
<b>Tree/shrub macrofossils</b>								
<i>Corylus avellana</i> L.	xcf	x	x					
<b>Other plant macrofossils</b>								
Charcoal <2mm	xx	xxx	xx	xx	xxx	xxx	xxx	xxx
Charcoal >2mm	xx	xxx			xx	x	xxx	xx
Charred root/rhizome/stem	x	x	x					x
Indet.buds		x						
Indet.fruit stone frags.		x						
<b>Animal macrofossils</b>								
Bone	xx	x xb	xx	xx	x	x	x	x
Fish bone			x					
Marine mollusc shell frags.	x							
Small mammal/amphibian bones	x	x		xx	x			x
<b>Other materials</b>								
Black porous 'cokey' material	xx	xx	xx	xx	xxx	xxx	x	x
Black tarry material	x	x	xx	xx	x	x		
Burnt/fired clay	x	x	xx					x
Ferrous globules	xx				x	x	xxx	
Glass frags.	xcf							
Hammerscale	x							
?Metallic residue		x			x			
Small coal frags.	x	xx	xx	xx	xx	x	x	x
Vitrified material	x	x	x	x	x	x	x	x
<b>Sample volume (litres)</b>	<b>21</b>	<b>16</b>	<b>32</b>	<b>32</b>	<b>16</b>	<b>32</b>	<b>32</b>	<b>40</b>
<b>Volume of flot (litres)</b>	<b>0.1</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>&lt;0.1</b>	<b>0.3</b>	<b>0.4</b>
<b>% flot sorted</b>	<b>100%</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>50%</b>	<b>25%</b>

**Table 32:** Charred Plant Macrofossils & Other Remains From Other Late Iron Age/Roman Features

***The Early Saxon sunken featured buildings (Tables 33, 34, 35 & 36)***

A total of forty one samples were taken from fills within sunken featured buildings 0699, 3001, 3002, 0285, 0985 and 2554. Remains are sparse throughout, although some superficial patterns may be evident. Culinary refuse (including charred grains, fruit stone fragments, nutshell and burnt bone) appears to be present in all but structure 0985. The density of material recovered is, however, extremely low and may be consistent with small quantities of detritus falling through the floor into the space below. Wheat grains form the main component of the cereal assemblages from building 0699, while barley is marginally more common within the samples from buildings 3001 and 3002. However, poorly preserved indeterminate grains are present in all three buildings, and the above variation may be purely a matter of differential preservation. Fragments of burnt bone and pieces of burnt or fired clay are more numerous from the fills of building 3002, although a proportion of this may be derived from modern intrusive material. Other domestic items include two glass beads found within the south-west quadrant of building 3001. A small fragment of ?painted wall plaster from the fill of posthole 3223 within building 3002 is almost certainly residual from the underlying Roman deposits. The fills of building 0985 (Table 36) are almost totally devoid of domestic type refuse, although minute pieces of hammer scale are recorded from sample 2018.

***Other Early Saxon features (Table 37)***

A further eight samples were taken from fills within pits 3220 and 3484 and ovens 3405 and 4030. With the exception of sample 3980 from oven 4030, the assemblages contain an extremely low density of material, which is almost certainly derived from scattered refuse. The wheat spikelet base and spelt glume base within sample 3980 are probably derived from residual Late Iron Age/Roman material, although they could be indicative of a late relict of spelt production within the Ipswich area.

**Key to Tables**

x = 1 – 10 specimens    xx = 10 – 100 specimens    xxx = 100+ specimens

m = mineral replaced    b = burnt    tf = testa fragment

ph = post hole    SFB = sunken featured building

Sample No.	0707	0708	0709	0710	0754	0755	0756	0757	0918	2065	2181	2405
<b>Cereals &amp; other food plants</b>												
<i>Avena</i> sp. (grains)			xcf							x		
<i>Hordeum</i> sp. (grains)											x	x
<i>Hordeum/Secale cereale</i> type (rachis nodes)				x			x					
<i>Prunus</i> sp. (fruit stone frags.)									x			
<i>Secale cereale</i> L. (grains)						xcf						
<i>Triticum</i> sp. (grains)	x	x	x			x	x					
Cereal indet. (grains)	x	x	x	xcf	x	x		x	xcf			x
<b>Herbs</b>												
<i>Centaurea</i> sp.				x								
<i>Fallopia convolvulus</i> (L.) A. Love									x		xcf	
<i>Malva</i> sp.								x				
<i>Vicia/Lathyrus</i> sp.			x				x					
<b>Tree/shrub macrofossils</b>												
<i>Corylus avellana</i> L.		xcf	xcf	x		xcf				x		
<b>Other plant macrofossils</b>												
Charcoal <2mm	xxx	xxx	xxx	xxx	xx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Charcoal >2mm	xx	xx	xx	x	xx	xx	x	xx	xx	x		x
Charred root/rhizome/stem		x		x				x				x
Indet. seeds												xm
<b>Animal macrofossils</b>												
Bone	x	x	x xb	x	x	xx	x xb	x	xx	xx	xx xb	x
Fish bone				x						x		
Small mammal/amphibian bone	x		x	x	x	x	x	x	x	x	x	
<b>Other materials</b>												
Black porous 'cokey' material		xx	x	xx	xx	x	xx	xx	xx	x	xxx	xx
Black tarry material	xx	xx	xx		xx		x	xx		xx	xx	xxx
Burnt/fired clay	x		x								x	x
Ferrous globules	x	x	x	x	x	x	x					
Glass frags.								xcf				
?Metallic residue	x			x								
Small coal frags.	xx	x	x	xx	x			x	xx	x	xx	x
Vitrified material		x	x	x			x		x	x	x	x
<b>Sample volume (litres)</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>
<b>Volume of flot (litres)</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>&lt;0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>
<b>% flot sorted</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>	<b>100%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>	<b>50%</b>

**Table 33:** Charred Plant Macrofossils & Other Remains From Fills Within SFB 0699

**Key to Tables**

x = 1 – 10 specimens    xx = 10 – 100 specimens    xxx = 100+ specimens

m = mineral replaced    b = burnt    tf = testa fragment

ph = post hole    SFB = sunken featured building

Sample No.	3004	3019	3062	3066	3067	3103	3202	3207	3227	3228	3234	3259
Context type	Fill	Fill	Fill	Fill	Fill	Fill	Fill	ph	Fill	Fill	Fill	ph
<b>Cereals &amp; other food plants</b>												
<i>Hordeum</i> sp. (grains)			xcf	xcf				x		xcf	xcf	
<i>Malus/Pyrus</i> sp.											xcfm	
<i>Secale cereale</i> L. (grains)										xcf		
<i>Triticum</i> sp. (grains)		x		xcf		x			x		x	
<i>T. aestivum/compactum</i> type (rachis nodes)							x					
Cereal indet. (grains)	xcf	x	x	x	x	x	x	x	x		x	
<b>Herbs</b>												
<i>Fallopia convolvulus</i> (L.)A.Love											xcfm	xcf
<i>Rumex</i> sp.									x			
<b>Tree/shrub macrofossils</b>												
<i>Corylus avellana</i> L.		x	x		x	x	x			x		
<b>Other plant macrofossils</b>												
Charcoal <2mm	xx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx
Charcoal >2mm	x	xx	xx	xx	xx	xxx	x	x	xx	xx	xx	x
Charred root/rhizome/stem						x	x	x		x		x
Ericaceae indet. (stem)									x			
Indet.seeds											xm	
<b>Animal macrofossils</b>												
Bone	x xb	xx	x	xx	x	x	x		x		x	
Fish bone		x	x				x				x	
Mineral replaced arthropods											x	
Small mammal/amphibian bone		x			x	x						
<b>Other materials</b>												
Black porous 'cokey' material	x	xxx	xx	x	x	xx	x	x	xx	x	xx	xx
Black tarry material	x	xx	xx	xx	x	xx		x	x	xx	xx	x
Burnt/fired clay	x	x		x	x		x		x		x	
Ferrous globules	x						x					
Glass beads											x (2)	
?Metallic residue				x				x				
Small coal frags.	x	x	x	x	x	x	xx		x	x	x	
Vitrified material		x		x			x	x			x	x
<b>Sample volume (litres)</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>16</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>16</b>
<b>Volumne of flot (litres)</b>	<b>0.1</b>	<b>&lt;0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>&lt;0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>	<b>100%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>

**Table 34:** Charred Plant Macrofossils & Other Remains From Fills Within SFB 3001

**Key to Tables**

x = 1 – 10 specimens    xx = 10 – 100 specimens    xxx = 100+ specimens

m = mineral replaced    b = burnt    tf = testa fragment

ph = post hole    SFB = sunken featured building

Sample No.	3005	3018	3026	3056	3059	3063	3064	3102	3211	3212	3223
Context type	Fill	Fill	Fill	Fill	Fill	Fill	3064	ph	ph	ph	ph
<b>Cereals &amp; other food plants</b>											
<i>Hordeum</i> sp. (grains)		xcf	x		x	x				xcf	
<i>Triticum</i> sp. (grains)			x					x			
Cereal indet. (grains)	xcf	x			x		x			x	
<b>Herbs</b>											
<i>Vicia/Lathyrus</i> sp.					x						
<b>Tree/shrub macrofossils</b>											
<i>Corylus avellana</i> L.					x	x	x	x	xcf	x	
<b>Other plant macrofossils</b>											
Charcoal <2mm	xx	xxx	xx	xxx	xxx	xxx	xx	xxx	xx	xxx	xxx
Charcoal >2mm	xx	x	x	xx	xx	xx	xx	xx	x	x	x
Charred root/rhizome/stem	x										
Indet. fruit stone frags.							x				
<b>Animal macrofossils</b>											
Bone		x xb	x	x xb	x xb	x	x xb	x xb	x	x	x xb
Fish bone	x	x		x	x		x				
Small mammal/amphibian bone	x	x		x	x	x	x	x	x	x	
<b>Other materials</b>											
Black porous 'cokey' material	xx	xx	xx	x	xxx	xx	xxx	xx	xxx	x	xx
Black tarry material	x		x	xx	xx		xx	x	x	xxx	xx
Burnt/fired clay	x	x	x	x	x		x	x	xx	x	x
Ferrous globules	x	x	x		x		x	x	x	x	x
Glass frags.							x				
?Metallic residue										x	
Mortar/plaster											x
Small coal frags.	xx	xx	xx	x	xx	xx	xx	xx	xxx	x	xx
Vitrified material	x	x	x		x		x	x		x	x
<b>Sample volume (litres)</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>16</b>	<b>16</b>	<b>16</b>
<b>Volume of flot (litres)</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>50%</b>	<b>100%</b>	<b>100%</b>	<b>50%</b>	<b>100%</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table 35:** Charred Plant Macrofossils & Other Remains From Fills Within SFB 3002

**Key to Tables**

x = 1 – 10 specimens    xx = 10 – 100 specimens    xxx = 100+ specimens

m = mineral replaced    b = burnt    tf = testa fragment

ph = post hole    SFB = sunken featured building

Sample No.	0286	0986	2001	2018	2555	2556
Context No.	0285	0985	0985	0985	2554	2554
Context type	SFB fill	SFB fill	SFB fill	SFB fill	SFB fill	SFB fill
Phase	III.a.	III.a.	III.a.	III.a.	III.a.	III.a.
<b>Cereals</b>						
<i>Hordeum</i> sp.(grains)					x	x
<i>Triticum</i> sp. (grains)	x					x
Cereal indet. (grains)					x	x
<b>Herbs</b>						
<i>Rumex</i> sp.						x
<i>Vicia/Lathyrus</i> sp.						xcf
<b>Tree/shrub macrofossils</b>						
<i>Corylus avellana</i> L.	xcf	xcf				
<b>Other plant macrofossils</b>						
Charcoal <2mm	xxx	xx	xxx	xx	xxx	xx
Charcoal >2mm	xx	x				
Charred root/rhizome/stem		x	x			x
<b>Animal macrofossils</b>						
Bone	x	x	x	x xb	x	xx
Small mammal/amphibian bone	x	x	x	x		x
<b>Other materials</b>						
Black porous 'cokey' material	x	x	xx	xxx	xxx	xx
Black tarry material	x	x	x	xx	xxx	xxx
Burnt/fired clay	x	x		x	x	x
Burnt stone		x				
Ferrous globules			x	x	x	
Hammer scale				x		
?Metallic residue				x		
Small coal frags.	x	xx	xx	xxx	xx	xxx
Vitrified material	x	x	x		xx	xx
<b>Sample volume (litres)</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>
<b>Volume of flot (litres)</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>	<b>100%</b>

**Table 36:** Charred Plant Macrofossils & Other Remains From Other Early Anglo Saxon Features

**Key to Tables**

x = 1 – 10 specimens    xx = 10 – 100 specimens    xxx = 100+ specimens

m = mineral replaced    b = burnt    tf = testa fragment

ph = post hole    SFB = sunken featured building

Sample No.	3221	3225	3226	3244	3485	3760	3948	3980
Context No.	3220	3220	3220	3220	3484	3405	3372	4030
Context type	Pit fill	Pit fill	Pit fill	Pit fill	Pit fill	Oven	Pit fill	Oven
Phase	III.a.	III.a.	III.a.	III.a.	III.a.	III.a.	III.a.	III.a.
<b>Cereals</b>								
<i>Hordeum</i> sp.(grains)	x	xcf	x	x	x		x	
<i>Triticum</i> sp. (grains)		xcf			xcf	x		
(spikelet bases)								x
<i>T. spelta</i> L. (glume bases)								x
Cereal indet. (grains)		x	x	x	x		x	x
<b>Herbs</b>								
<i>Fallopia convolvulus</i> (L.)A.Love					xtf			
<i>Galium aparine</i> L.	x							
Large Poaceae indet.								x
<i>Raphanus raphanistrum</i> L. (siliqua)				x				
<i>Vicia/Lathyrus</i> sp.	x				xcf			
<b>Tree/shrub macrofossils</b>								
<i>Corylus avellana</i> L.		x		x	x		x	x
<b>Other plant macrofossils</b>								
Charcoal <2mm	xxx	xx	xxx	xxx	xxx	xx	xxx	xxx
Charcoal >2mm	xx	xxx	xx	xxx	xxx	xx	xx	x
Charred root/rhizome/stem		x			x			x
Ericaceae indet. (stem)		xcf						
Indet.seeds					xm	x	xm	
<b>Animal macrofossils</b>								
Bone	x	x	xx xb	x	x	x	x xb	x
Fish bone		x			x	x		
Marine mollusc shell frags.							x	
Small mammal/amphibian bone			x		x		x	
<b>Other materials</b>								
Black porous 'cokey' material	x	x	x	x	x	x	x	x
Black tarry material	x	x	xx	xx	x	x	xx	x
Burnt/fired clay	x	x		x	x	x		
Ferrous globules			x				x	x
?Metallic residue			x	x			x	
Small coal frags.	x	x	xx	x	xxx	x		x
Vitrified material	x	x				x	xx	
<b>Sample volume (litres)</b>	<b>32</b>	<b>32</b>	<b>16</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>
<b>Volume of flot (litres)</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>

**Table 37:** Charred Plant Macrofossils & Other Remains From Other Early Anglo Saxon Features

**Medieval and other features (Table 38)**

Two samples were taken from the fills of medieval ditches 2131 and 2061. The assemblages are broadly similar to those from the earlier features, containing insufficient material for any conclusive interpretation. Two samples 0289 and 2180 are from contexts, which have yet to be placed within the site's stratigraphic sequence. Both contain extremely low density assemblages.

**Key to Tables**

x = 1 – 10 specimens    xx = 10 – 100 specimens    xxx = 100+ specimens

m = mineral replaced    b = burnt    tf = testa fragment

ph = post hole    SFB = sunken featured building

Sample No.	2201	2263	0289	2180
Context No.	2131	2061	0318	2179
Context type	Ditch	Ditch	Layer	Pit
Phase	IV	IV	U/S	U/S
<b>Cereals</b>				
<i>Triticum</i> sp. (grains)		x		
Cereal indet. (grains)	x			
<b>Herbs</b>				
<i>Vicia/Lathyrus</i> sp.		x		
<b>Wetland plants</b>				
<i>Carex</i> sp.			xcf	
<b>Tree/shrub macrofossils</b>				
<i>Corylus avellana</i> L.		xcf	xcf	
Other plant macrofossils				
Charcoal <2mm	xxx	xx	xxx	x
Charcoal >2mm			xx	
Charred root/rhizome/stem	x	x	x	
<b>Animal macrofossils</b>				
Bone	x	x		
Fish bone	x	x		
Small mammal/amphibian bones	x	x		
<b>Other materials</b>				
Black porous 'cokey' material	xxx	xx		xxx
Black tarry material	x	xxx		xxx
Burnt/fired clay	x			
Ferrous globules	xx	x		
Small coal frags.	xx	xxx		x
Vitrified material	x	xx		x
<b>Sample volume (litres)</b>	<b>32</b>	<b>32</b>	<b>8</b>	<b>16</b>
<b>Volume of flot (litres)</b>	<b>0.1</b>	<b>0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table 38:** Charred Plant Macrofossils & Other Remains From The Medieval Features & Unstratified Contexts

**Conclusions & recommendations for further work**

In summary, modern contamination of the deposits would appear to be a major issue with these assemblages, although at present, the exact degree of this contamination is not known. With only one exception, plant remains are comparatively rare, and most would appear to be derived from scattered and/or wind-blown detritus, although those within the sunken featured buildings may be indicative of domestic refuse. One



sample, from a kiln of probable Roman date, appears to be derived from cereal processing waste, which may have been used as kindling or fuel for the kiln.

With the exception of sample 3953 from kiln 3952, none of the assemblages contain a sufficient density of material (i.e. 100+ specimens) for quantitative analysis, and although sample 3953 is suitable, it is doubtful if quantification of a single assemblage with numerous contemporary parallels, would significantly contribute to the overall interpretation of the site or its component features. Therefore, no further analysis is recommended.

### **3.4.3 Shell (Sue Anderson)**

A total of 3014 oyster shells (26204g) was collected from the non-square contexts and 832 (5972g) from the sieved squares. Large numbers of oyster shell were found in the fills of pits 3372 (343 - 5022g), 0745 (362 - 3826g), 3619 (195 - 1618g) and posthole 0861 (123 - 1431g). Large groups were also found in the fills of ditches 3711 (414 - 3098g) and 3503 (386 - 2228g) and in layer 0700 (180 - 929g). A small amount of other shell consisting of mussels and whelks was also collected — 155 from non-squares and eleven from the sieved squares. All shell was quantified and discarded.

### **3.4.4 Charcoal (Sue Anderson)**

Thirty-seven small fragments of charcoal were collected from twenty contexts in thirteen of the non-square features — three ditches, a kiln, an oven, five pits, one posthole, two SFBs and one unstratified. Four fragments were collected from four of the sieved squares.

## **3.5 Discussion of the Finds Evidence**

For the purposes of this assessment the finds assemblage was divided into two distinct components: those recovered from the sieving of subsoil in the 2 metres x 2 metres gridded squares (effectively an unstratified/mixed occupation and plough soil horizon) and those recovered from the formal excavation of features.

Assessment work has been aimed primarily at the stratified finds with only a basic recording (spot-dating & identification) of the sieved square material, the latter revealing a similar date range to that from the more secure contexts. The layer from which the sieved square assemblage was recovered was clearly fundamentally mixed and includes a far higher proportion of medieval and post-medieval finds than the more formally excavated contexts. However, the sieved square material still forms a major component of the overall finds assemblage and can, as such, still have a significant role in the analysis stage of the project and the overall interpretation of the site.

While there was evidence for prehistoric, Middle and Late Saxon, medieval and post-medieval activity on the site, by far the most archaeologically significant periods represented in the artefactual assemblage were the Roman and Early Saxon periods.

Generally, the range and condition of Roman finds was good, although a lot of the pottery, especially the earlier Roman material, had suffered varying degrees of abrasion and reworking. With further analysis, it should be possible to establish how the site developed during the Roman period in terms of its character, status and also identify areas of contact and trade.

Overall, the artefactual evidence suggests that there was relatively intensive activity/occupation on the site for almost the entire Roman period, with its origins in the immediate pre-conquest Iron Age. The coins, the majority of which were recovered during the metal detector survey associated with the sieved squares, indicate a break in activity/occupation of the site during the 3<sup>rd</sup> century, picking up again during the 4<sup>th</sup> century and then continuing into the early 5<sup>th</sup> century. However, the later Roman activity is not reflected in the presence of a significant number of features/structures of that date. Similarly to other sites with a later Roman component, e.g. Preston St. Mary (Boulter, 1996, PSM 003 & PSM 007), the evidence seems to be largely artefactual and contained within an occupation layer/plough soil or as residual finds in later contexts. At Handford Road this includes a significant quantity of Roman tile of various types which suggest the presence of high status buildings in the vicinity.

A relatively large quantity of metalworking slag was also recovered during the excavation from both the formally excavated features and the sieved squares, the latter not examined for this assessment. While some of the material may relate to 20<sup>th</sup> century industrial activity on the site, there was clearly some iron working, predominantly smithing, and possibly some non-ferrous metalworking, dating to the Roman period. Further analysis will include an examination of the ferrous objects and non-ferrous industrial waste in order to ascertain exactly which metalworking processes were undertaken on the site.

Evidence for other Roman industrial activity was provided by the presence of a kiln. Even though the firing chamber lay outside the excavated area, a quantity of pottery was recovered that may represent the products of the kiln, while fragments of lining and kiln furniture may help in a reconstruction of the structure itself.

Some form of contact with the Roman military, albeit limited, was indicated by the recovery of a Ballista bolt and a mount.

The possibility that the site included a ritual element during the Roman period must also be considered with a horse skull recovered from one pit and a whole juvenile cow skeleton from another.

While there was almost certainly a gap between the Roman and Early Saxon occupations of the site, the artefactual evidence suggests that this was relatively small, probably a few decades during the middle of the 5<sup>th</sup> century. Further analysis of the finds may be able to ascertain more accurately how long this gap actually was and to what extent the Early Saxon settlement was influenced by the preceding Roman occupation. Roman finds should be examined for signs of re-working during the Early Saxon period.

Early Anglo Saxon finds formed a significant component of the sieved squares assemblage and from contemporary features, with pottery and animal bone particularly well represented, along with an extensive range of small finds. The condition of the material was good and further analysis has the potential to more securely date the beginning and end of the Early Saxon occupation.

Analysis of the animal bone, the majority of which was recovered from SFB's, will provide information regarding animal husbandry, processing and consumption on the site, although care must be taken due to the presence of residual material from the Roman period. The presence of bone and antler working waste is indicative of these activities being undertaken at the site.

Textile working activities were also carried out on the site as a number of small finds (pins/needles, pin-beaters, spindle whorls, loomweights) relating to these processes were recovered.

A number of small finds relating to dress and personal adornment were identified, including a rare necklace. While more commonly recovered from cemetery sites, in this context they must be seen as stray losses within the settlement area. However, the opportunity should be taken to compare these objects with those recovered from nearby cemetery sites, particularly Hadleigh Road.

The Middle and Late Saxon periods were poorly represented and were limited to a few small finds and odd sherds of Ipswich Ware and Thetford Ware pottery, although the latter can easily be mistaken for Roman greywares.

The majority of the medieval finds, predominantly ceramics, were recovered from the sieved subsoil squares with only two features, a pair of parallel ditches, recorded on the site. However, the quantity of medieval pottery was more than could be expected from a simple manuring scatter. While it is not considered necessary to undertake in-depth analysis of this unstratified material, it has been suggested that a desktop survey be carried out with a view to identifying any adjacent medieval sites.

Post-medieval finds were recovered from sieved subsoil squares and securely excavated contexts, but other than recognising the intrinsic archaeological value of individual items, there is little to be gained from a further programme of analysis. In addition, while it has been recognised that the clay pipe assemblage is of some regional significance, with the potential to help build a local typological sequence, the unstratified condition of the majority of the assemblage has been the major influencing factor in the decision not to allocate resources for the further analysis of this material.

#### **4. Storage & Curation**

The bulk and small finds (following conservation where necessary), along with the paper and digital archive, can be adequately stored in the controlled conditions of the Suffolk County Council's Archaeological Service Store at Shire Hall, Bury St. Edmunds (conforming to MGC standards).

#### **5. Overall Statement of Archaeological Potential (by Period/Phase)**

The site provided evidence for fluctuating levels of activity during a number of archaeological periods. The archaeological potential for each of these periods varies accordingly with the intensity and character of the activity and quality of the surviving deposits and artefactual assemblage.

### **Period I.a. Neolithic (c.4500 – 2700 BC)**

The prehistoric period was represented almost exclusively by residual and unstratified worked flints with the overall character of the material suggesting an overwhelmingly Neolithic date. The river terrace location of the site is one where, based on experience from more extensive studies of similar environments, prehistoric activity is usually widespread and often relatively intense. While the quantity of worked flint from Handford Road does appear to indicate a reasonable level of activity in the area at this time, it also seems unlikely that all contemporary features, had they been present, would have been completely destroyed by the, admittedly, extensive later archaeological interventions.

It must, therefore, be accepted that the unstratified nature of the assemblage limits its potential to the intrinsic archaeological value of individual pieces, which can be described and illustrated. In addition, the identification of concentrations of material, in both the later features and sieved subsoil squares should be considered as they may reflect the location of discrete surface scatters of Neolithic activity disrupted by later archaeological interventions.

### **Period I.b. Bronze Age (c.2500 – 650 BC)**

There is no archaeological potential for further work on this phase.

### **Period I.c. Iron Age (c.650 BC – 43 AD)**

There is no archaeological potential for further work on the earlier and middle Iron Age material other than noting the limited presence of ceramic finds in the overall artefact assemblage. The later Iron Age will be dealt with in Period II.

### **Period II. Late Iron Age/Roman (all phases, c.1<sup>st</sup> - E. 5<sup>th</sup> century AD)**

The Roman activity on the site effectively appears to have started in the very latest decades of the Iron Age and continued almost continuously through to the early 5<sup>th</sup> century with only a short gap so far recognised during the 3<sup>rd</sup> century. The fact that the activity continues to flourish beyond the Valentinian period is in itself unusual for sites in the east of the county. In the Ipswich area, only the later phases of the Castle Hill Villa (IPS 200) and a site at Speedwell Road, Ipswich (IPS 030) have produced any quantity of comparably dated material (Plouviez, pers. comm.).

Given that the Roman activity spans such a chronologically extended period and the wealth of stratigraphic and artefactual information recovered from the site, there is a clear potential to expand on certain topics highlighted in East Anglian Archaeology Occasional Paper 3, Research and Archaeology Framework for the Eastern Counties; 1 resource assessment (hereafter EAA occ. 3) and help answer some of the research questions posed in East Anglian Archaeology Occasional Paper 8, Research and Archaeology Framework for the Eastern Counties; 2 research agenda and strategy (hereafter EAA occ. 8).

In EAA occ. 3 it is stated that ‘...that settlements of all kinds need to be examined not as isolated entities but in relation to their hinterlands and that future projects should consider both town and countryside in conjunction as far as possible’ (EAA occ. 3, 1997, p.37). This should certainly be the case with Handford Road where the further analysis and interpretation of the site will aim to place the site within its local and regional context. Particular regard should be accorded to nearby Roman sites

including the Whitton Villa (IPS 200), Speedwell Road (IPS 030), The Albany (IPS 240) and the recently excavated Roman material from an excavation at Cranfields Mill (IAS 6405) on Ipswich Dock (Gardner, forthcoming). In addition the topographical setting and aspect of the site should be explored, including its relationship with the adjacent watercourse and the possibility that it represents a contemporary formal leat or canal/canalised channel of the River Gipping (Malster, 2000, p.2).

The wealth of artefactual evidence recovered clearly places the site within an area which at one time had high status buildings and was also home to various industrial activities. However, there were no obviously identifiable building structures that would help identify the type of site represented. On that basis, one aspect of the examination and analysis of the structural and artefactual evidence needs to focus on ascertaining the development and changing character of the site during the Roman period.

Industrial sites and potteries are also highlighted in EAA occ. 3 (pp.40-41) as being of particular importance with regard to further studies as there has been only limited detailed work undertaken on Roman metalworking or pottery production sites in the region, particularly in Suffolk. The Handford road site has provided significant metalworking evidence and also a pottery kiln and has the potential to expand our knowledge on these topics.

EAA occ. 3 and 8 also draw attention to other gaps in our knowledge and put forward a number of priority research topics, the following of which the Handford Road site has the potential to contribute towards. These include:

- **Roman Military:** the site produced limited artefactual evidence (two items) that were of military origin.
- **Religion/ritual (EAA occ. 3, p.40):** the complete juvenile skeleton of a cow from one context and a horses skull from another may have some ritual significance.
- **Faunal remains (EAA occ. 8, p.21):** while the site covers almost the whole of the Roman period, the bulk of the features are from the earlier Roman period, almost certainly spanning the conquest, a time which has been identified as having particular interest.
- **Roman-Saxon transition (EAA occ.3, p.40 & EAA occ. 8, p.22):** the Handford Road site has provided considerable evidence, particularly coins, for its continuation into the 5<sup>th</sup> century while the Early Saxon occupation had clearly been established by the end of the 5<sup>th</sup> century. The finds assemblage should be studied with a view to identifying curated objects that may extend the continuity of activity on the site further into the 5<sup>th</sup> century and, in so doing, reduce the chronological gap between the Roman and Early Saxon occupation.

### **Period III.a. Early Anglo Saxon (c.5<sup>th</sup> century-E.7<sup>th</sup> centuries)**

The Early Anglo Saxon period was represented by occupation features scattered throughout the site and by a significant artefactual assemblage from the sieved subsoil squares. Information from Handford Road has considerable potential to help address

some of the gaps in the knowledge highlighted in EAA occ. 3 and research questions posed in EAA occ. 8.

In EAA occ. 3 it is stated that '*No Early Anglo-Saxon settlements have been excavated on a large scale during the last twenty years and West Stow (West, 1985) and Mucking (Hamerow, 1993) remain the only examples for the region*' (EAA occ. 3, 1997, p.48). This situation has not radically changed in Suffolk since this was written, although an extensive area of a settlement was excavated at Bloodmoor Hill, Carlton Colville (Mortimer, 2000) and a further significant area of occupation at Flixton Park Quarry, Flixton (Boulter, forthcoming). In addition, various sites have yielded tantalising glimpses of occupation in the form of occasional buildings in a similar vein to the partial settlement excavations listed in the resource assessment (EAA occ. 3, 1997, p.48). While the Handford Road excavation clearly did not cover the whole of the area occupied during the Early Anglo Saxon Period, with structural evidence recorded close to all of the site edges, the c.0.5 hectare area examined almost certainly provided a reasonably representative sample of the settlement.

The research agenda also draws attention to the continuing lack of knowledge regarding the 5<sup>th</sup> century, particularly on settlement sites as opposed to the more extensive cemetery evidence (EAA occ. 8, 2000, p.23). It has also been suggested (EAA occ. 8, 2000, p.22) that the gap between the end of the Roman activity and the Early Anglo Saxon phase can be narrowed by the identification of stratigraphic contexts that post-date the Roman period, but are characterised by 'curated sherd' assemblages during a period when the population were themselves aceramic. The Handford Road site has both a later Roman component and artefactual evidence which suggests that an element of the Early Anglo Saxon occupation occurred during the 5<sup>th</sup> century and, therefore, has the potential to provide information relating to this period.

A further priority for research involves the size, character, location and distribution of Early Saxon settlements as the present body of knowledge is based more on the location of cemeteries than settlement sites themselves (EAA occ. 8, 2000, p.23). There is also a specific Finds Research Theme which is aimed at examining '*Production and exchange in the Iron Age, Roman and Anglo-Saxon periods*' (EAA occ. 8, 2000, p.45) to which the Handford Road artefactual assemblage has the potential to contribute. To this end, the structural and artefactual evidence from the Handford Road site has the potential to be studied on a number of levels including the following:

- The overall character of the occupation; recognition of related groups of structures within the settlement, chronological sub-phasing etc.
- The structural affinities of its buildings with those on other known sites.
- The relationship of the settlement with other Early Anglo Saxon sites in the Lower Gipping Valley (both funerary & occupation).
- Its trading relationships on a regional, national and international scale.

- Craft production; evidence from the animal bone assessment suggests that bone and antler working were undertaken at the site.
- Animal husbandry, production processing and consumption.

Furthermore, the apparent abandonment of the site during the 7<sup>th</sup> century may also be a crucial factor in the explaining why the contemporary settlement recorded at the core of Ipswich eventually developed during the 7<sup>th</sup> century into a major trading centre that was the Emporium of Gipeswic (Wade, 1993, pp.145-148).

### **Period III.b. & c. Middle Saxon (c.650-850) & Late Saxon (c.850-1000)**

No further work is required on this material which was limited to four sherds of unstratified and intrusive pottery.

### **Period IV. medieval (c.1000-1480)**

While the artefactual evidence recovered from the sieved subsoil squares clearly indicates medieval activity in the vicinity of the site, only two incised features, both ditches, could be positively attributed to this period. On that basis, the potential for further work is considered to be limited to a documentary search. Relevant sources should be examined (including the history of Handford Lodge with the possibility that it was a medieval foundation) with a view to recovering information regarding the medieval ownership and landuse of the site and its immediate environs.

### **Period V. post-medieval (c.1480-present day)**

Post-medieval features were recorded throughout the site, the majority relating to late 19<sup>th</sup> and 20<sup>th</sup> century industrial activity. No further work is recommended on the stratigraphic evidence other than identification of features for the purpose of the final site phasing and archiving tasks. However, the artefactual assemblage from the sieved subsoil squares also included a major post-medieval component for which there is some potential for meaningful analysis using Vertical Mapper to plot artefact densities across the site.

## **6. Recommendations for Analysis, Publication & Archive**

### **6.1 Introduction**

Section 6.2 lists the recommended key tasks that on the basis of the overall statement of potential need to be undertaken for analysis and publication. In addition to the period specific tasks there are others involved with individual categories of artefactual evidence, compiling the site archive and general management of the project, these are also listed below. A more detailed breakdown with projected costs is presented in section 8.2.

### **6.2 List of Key Tasks**

#### **1. General Project Management**

#### **2. General Report Preparation**

#### **3. Structural & Stratigraphic Analysis**

##### **3.1 Period I. Prehistoric**

##### **3.2 Period II. Roman**

- 3.3 Period III. Anglo Saxon
- 3.4 Period IV. medieval
- 3.5 Period V. post-medieval

#### 4. Finds Analysis

- 4.1 Prehistoric & Roman Pottery
- 4.2 Post-Roman Pottery
- 4.3 Ceramic Building Material, Fired Clay & Mortar
- 4.4 Metalworking Waste
- 4.5 Stone (Worked Flint & Querns)
- 4.6 Animal Bone
- 4.7 Small Finds

#### 5. Illustration

#### 6. Environmental Analysis

#### 7. Soil Monolith Analysis

#### 8. Documentary Search

#### 9. Archiving

#### 10. Non Staff Considerations

### 7. Preliminary Publication Synopsis

Table 39 is a Preliminary Publication Synopsis which has been prepared with due regard to the relative potential/importance of each archaeological period as presented in Section 5 of this report.

Description	Illustrations/figures (No. pages)	Plates (No. pages)	Tables & graphs (No. pages)	Pages of text (1 page =c.1200 words)	Total No. pages
<b>Chapter 1. Introduction</b>	1 (1 full page with inset or 2 x 0.5)	-	-	2	3
<b>Chapter 2. The Excavation</b>					
Phasing summary	-	-	-	0.5	0.5
Period I. Prehistoric	-	-	-	0.25	0.25
Period II. Roman	4 (At least 2 x 0.5 of phase plans, 3 of sections/plans)	2 (4 x 0.5)	-	7	13
Period III. Anglo Saxon	5 (0.5 phase plan, 0.5 oven plan & sections, 4 of selected buildings)	2 (4 x 0.5)	0.5 (building stats)	7	14.5
Period IV. Medieval	0.5 (0.5 phase plan)	-	-	0.5	1
Period V. post medieval	1 (2 x 0.5 phase plans)	-	-	0.5	1.5

**Table 39:** Preliminary Publication Synopsis (continued on next page)



Description	Illustrations/figures (No. pages)	Plates (No. pages)	Tables & graphs (No. pages)	Pages of text (1 page =c.1200 words)	Total No. pages
<b>Chapter 3. Specialised Reports</b>					
<i>Artefactual evidence:</i>					
Small Finds (metal)	4	1	1	8	14
Metalworking (slag)	-	-	1	2	3
Non-building stone	0.5	-	-	0.5	1
Worked flint	0.5	-	0.5	1	2
Quern	0.5	-	0.5	0.5	1.5
Glass	-	-	-	0.25	0.25
Pottery	4	-	4	10	18
Stone	0.5	-	-	0.5	1
CBM	-	-	1	3	4
Fired clay + kiln	-	-	1	1.5	2.5
Mortar	-	-	-	0.25	0.25
Bone artefacts	5	0.5	-	5	10.5
Wood (worked)	-	0.5	-	0.5	1
<i>Soil Studies:</i>					
Soil monolith	-	0.5	0.5	1	2
<i>Biological &amp; botanical evidence:</i>					
Animal bone	-	-	2	5	7
Mollusca	-	-	0.25	0.25	0.5
Plants	-	-	3	3	6
<b>Chapter 4. Discussion</b>	-	-	-	5	5
<b>Bibliography</b>	-	-	-	5	5
<b>Totals</b>	<b>26.5</b>	<b>6.5</b>	<b>15.25</b>	<b>70</b>	<b>118.25</b>

Table 39: Preliminary Publication Synopsis

## 8. Resources & Programming for Analysis, Publication & Minimum Standard for Site Archive

### 8.1 Staff for Analysis, Publication & Archive Compilation

The following table presents the likely makeup of the staff that will be used for the analysis and publication phase of the project. Changes may need to be made to this list and additional input from other specialist sources could be required.

Name	Duties & Responsibilities	Organisation
John Newman (JN)	Project Manager	SCCAS Field Projects Team
Stuart Boulter (SB1)	Senior Project Officer & principal author	SCCAS Field Projects Team
Richenda Goffin (RG)	Finds Manager	SCCAS Field Projects Team
Cathy Tester (CT)	Roman pottery & kiln specialist	SCCAS Field Projects Team
John Duffy (JD)	Survey	SCCAS Field Projects Team
Jude Plouviez (JP1)	Roman coins specialist	SCCAS Conservation Team
Sue Anderson (SA)	Post-Roman pottery & CBM specialist	CFA Archaeology Ltd
Sarah Bates (SB2)	Worked flint specialist	NAU
Tony Breen (TB)	Documentary Historian	Freelance
Diana Briscoe (DB)	Stamped Saxon pottery specialist	Freelance
Julie Curl (JC)	Zooarchaeologist	NAU
Val Fryer (VF)	Charred plant macrofossils & other remains	Freelance
Hilary Major (HM)	Roman & other metal small finds	Freelance
Hilary Cool (HC)	Roman & other glass small finds	Freelance
Sue Holden (SH)	Illustrator	Freelance
Richard I. Macphail (RM)	Soil monolith analysis	Institute of Archaeology, UCL
David Williams (DW)	Petrological analysis	University of Southampton
Rebecca Slater (RS) & Gerry McDonnell (GM)	Metalworking residues specialists	Bradford University
Julia Park (JP2)	X-radiography & conservation	Conservation Services
John Hines (JH)	Saxon Wrist Clasp	University of Cardiff
Ian Ridler (IR)	Worked bone & other selected small finds	Freelance

Table 40: Staffing for Analysis &amp; Publication

## 8.2 Costing for Analysis, Publication & Archive Compilation

The following costing (Table 41) includes a management and administration oncost. VAT is charged at 17.5%.

[illegible]

**Table 41:** Costing for Analysis, Publication & Archive Compilation (continued below)

[illegible]

**Table 41:** Costing for Analysis, Publication & Archive Compilation (continued below)





## 9. Bibliography

- Biggs, N. L.  
1992 *English weights an illustrated survey* White House publications, Galataprint, Powys.
- Blagg, T.,  
Plouviez, J. &  
Tester, A.  
2004 *Excavations at a large Romano-British settlement at Hacheston, Suffolk in 1973-4* East Anglian Archaeol Rep106, Suffolk County Council Archaeological Service.
- Blockley, K.,  
Blockley, M.,  
Blockley, P.,  
Frere, S. S. &  
Stow, S.  
1995 *Excavations in the Marlowe Car Park and Surrounding Areas*, The Archaeology of Canterbury 5, Canterbury
- Boulter, S. P.  
1996 *Preston St. Mary, PSM 002 & PSM 008.* SCCAS Rpt. No. 96/15
- Boulter, S. P.  
1997 *Former Firmin Site, Handford Rd. Ipswich (IPS 280), Record of an Archaeological Evaluation.* SCCAS Rpt. No. 97/25
- Boulter, S. P.  
forthcoming **Assessment 2:** *An Assessment of the Archaeology Recorded in New Phases 5, 6, 7(a & b), 9, 11 & 12 of Flixton Park Quarry (FLN 056, FLN 057, FLN 058, FLN 061, FLN 062, FLN 063 & FLN 064).* SCCAS Rpt. No 2001/102, Volume I: Text & Figures
- Brugmann, B.  
2004 *Anglo-Saxon beads* Oxbow Books, Oxford.
- Cool, H. E. M.  
1990, Roman Metal Hair Pins from Southern Britain. *Archaeological Journal* 147 148-182.
- Courty, M. A.  
Goldberg, P. &  
Macphail, R. I.  
1994 Ancient people – lifestyles and cultural patterns, *Transactions of the 15<sup>th</sup> World Congress of Soil Science, International Society of Soil Science, Mexico.* International Society of Soil Science, Acapulco, pp. 250-269
- Crowther, J.  
2003 Potential magnetic susceptibility and fractional conversion studies of archaeological soils and sediments. *Archaeometry*, 45(4): pp. 685-701
- Crummy, N.  
1983 *Colchester Archaeological Report 2: The Roman small finds from excavations in Colchester 1971-9* Colchester Archaeological Trust Ltd.
- Darrah, R.  
2003 *Wood in Excavations at Great Holts Farm, Boreham, Essex, 1992-1994*, East Anglian Archaeology 105 pp. 182-189
- Davis, S.  
1992 A rapid method for recording information about mammal bones from archaeological sites. English Heritage AML report 71/92
- EAA  
1997 *Research and Archaeology: A Framework for the Eastern Counties, 1. Assessment.* East Anglian Archaeology, Occasional Paper No. 3, Edited by Glazebrook, J.
- EAA  
2000 *Research and Archaeology: A Framework for the Eastern Counties, 2. Research agenda and strategy.* East Anglian Archaeology, Occasional Paper No. 8, Edited by Brown, N. & Glazebrook, J.
- Egan, G. &  
Pritchard, F.  
1991 *Medieval finds from excavations in London: 3 Dress Accessories c1150-c1450* Museum of London, London

- Engelmark, R. & Linderholm, J. 1996 Prehistoric land management and cultivation. A soil chemical study. *Arkaeologiske Rapporter fra Esbjerg Museum*: pp. 315-322
- Frere, S. 1972 *Verulamium Excavations Volume 1* The Society of Antiquaries, London.
- Garton, D. & Salisbury, C. R. 1995 A Romano-British wood-lined well at Wild Goose Cottage, Lound, Nottingham in *Transactions of the Thorton Society of Nottinghamshire*, Vol. XCIX, pp. 15-43.
- Going, C. J. 1987 *The Mansio and other sites in the south-eastern sector of Caesaromagus: the Roman pottery*. Chelmsford Archaeological Trust Report 3.2/CBA Res. Rep. 62 CBA, London.
- Hamerow, H. 1993 *Excavations at Mucking Volume 2: The Anglo-Saxon Settlement* by Jones, M.V. and W.T., Engl. Heritage Archaeol. Rep. 21
- Hawkes, C. F. & Hull, M. R. 1947 *Camulodunum*. Reports of the Research Committee of the Society of Antiquaries of London No. 14, London.
- Hull, M. R. 1963 *The Roman Potters' Kilns of Colchester*, Rep. Res. Comm. Soc. Antiq. London 21
- Higgins, D. A. 2003 Clay Tobacco Pipes from Excavations at Landguard Fort, Felixstowe, Suffolk. Specialist report written for inclusion in future publication.
- Hillson, S. 1992 Mammal bones and teeth. The Institute of Archaeology, University College, London
- Hillson, S. 1996 Teeth. Cambridge Manuals in Archaeology. Cambridge University Press.
- Hines, J. 1993 *Clasps Hektespenner Agraffen* The Swedish Council for Research in the Humanities and Social Sciences, Bohuslaningens Boktryckeri AB, Uddevalla, Sweden.
- Hodge, C. A. H. et al. 1983 *Sheet 4 Eastern England. Soils of England and Wales*. Ordnance Survey, Southampton
- Hodgson, J. M. 1997 *Soil Survey Field Handbook*, Technical Monograph No. 5. Soil Survey and Land Research Centre, Silsoe.
- Kenyon, R. 1987 'The Claudian coinage' in Crummy, N (ed.), *The coins from excavations in Colchester 1971-9*, Colchester Archaeol Rep 4, 24-41
- Leary, J. 2004 *Tatberht's Lundenwic. Archaeological Excavations in Middle Saxon London*, PCA Monograph 2, London
- Loyd-Morgan, G. 1981 *Descriptions of the Collections in the Rijksmuseum G. M. Kam at Nijmegen: N° IX. The Mirrors*, Nijmegen
- MacGregor, A. & Bolick, E. 1993 *A Summary Catalogue of the Anglo-Saxon Collections (Non-Ferrous Metals)* BAR British Series 230, Ashmolean Museum, Oxford.

- Macphail, R. I.  
1987 A review of soil science in archaeology in England. In: H. C. M. Keeley (Editor), *Environmental Archaeology: A Regional Review Vol. II*. Historic Buildings & Monuments Commission for England, London, pp. 332-379
- Macphail, R. I.  
forthcoming 'Dark Earth': recent studies of 'dark earth' and 'dark earth-like' microstratigraphy in England. In: L. Verslype (Editor), *Dark earth in the dark ages*. Université Catholique de Louvain, Louvain.
- Macphail, R. I.,  
Cruise, G. M.,  
Engelmark, R. &  
Linderholm, J.  
2000 Integrating soil micromorphology and rapid chemical survey methods: new developments in reconstructing past rural settlement and landscape organisation. In: S. Roskams (Editor), *Interpreting Stratigraphy*. University of York, York, pp. 71-80.
- Macphail, R. I.,  
Galinié, H. &  
Verhaeghe, F.  
2003 A future for dark earth? *Antiquity*, 77(296): pp.349-358
- Mainman, A. J. &  
Rogers, N. S. H.  
2000 *The Archaeology of York The small Finds 17/14 Craft, Industry and everyday life Finds from Anglo-Scandinavian York* York Archaeol Trust, by the Council of British Archaeology, Bradford.
- Malster, R.  
2000 *A History of Ipswich*, Phillimore & Co. Ltd.
- Manning, W. H.  
1985 *Catalogue of the Romano-British Iron tools, fittings and weapons in the British Museum* BM Dorset.
- Margeson, S.  
1993 *Norwich Households: The Medieval and Post-Medieval Finds from Norwich Survey Excavations 1971-1978*. East Anglian Archaeol Rep 58 Norwich Survey, Hunstanton, Norfolk.
- Mortimer, R.  
2000 Bloodmoor Hill, Carlton Colville, Suffolk, Excavation of the Early Anglo-Saxon Settlement. An Interim Statement, Cambridge Archaeological Unit
- Oldenstein, V. J.  
1976 'Zur Ausrüstung römischer Auxiliareinheiten', *Bericht der Römisch-Germanischen Kommission* 57.
- Owen-Crocker,  
G. R.  
1986 *Dress in Anglo-Saxon England*, Manchester
- Plouviez, J.  
2004 'Roman coins' in Blagg, T, Plouviez, J and Tester, A, *Excavations at a large Romano-British settlement at Hacheston Suffolk, 1973-74*, East Anglian Archaeol 106.
- Reece, R.  
1991 *Roman Coins from 140 Sites in Britain*, Cirencester
- Reece, R. &  
James, S.  
1986 *Identifying Roman Coins: A practical guide to the identification of site finds in Britain*, London
- Riddler, I. D.  
1986 Pottery Stamps – a Middle Saxon Viewpoint, *Medieval Ceramics* **10**, 17-22



- Riddler, I. D.,  
Trzaska-  
Nartowski, N. I.  
A. & Hatton, S.  
Forthcoming
- An Early Medieval Craft. Objects and Waste of Bone, Antler and Ivory from Ipswich Excavations, 1974-1994*, East Anglian Archaeology, Suffolk County Council
- Stace, C.,  
1997
- New Flora of the British Isles*. Second edition. Cambridge University Press.
- Swift, E.  
2000
- Regionality in Dress Accessories in the Late Roman West*, Monographies Instrumentum 11, Montagnac
- Wade, K.  
1993
- ‘The Urbanisation of East Anglia: the Ipswich Perspective’ in Gardiner, J. (ed.), *Flatlands and Wetlands: Current themes in East Anglian Archaeology*, E. Anglian Archaeol. 50, pp.144-151
- West, S.  
1985
- West Stow. The Anglo Saxon Village, Volume 1:Text*. East Anglian Archaeology 24, Suffolk County Council Planning Department, Suffolk
- West, S.  
1985
- West Stow the Anglo-Saxon Village Volume 2: Figure and Plates*. East Anglian Archaeology Report. 24, Suffolk County Planning Department, Suffolk.
- West, S.  
1998
- A Corpus of Anglo-Saxon Material from Suffolk*, East Anglian Archaeology 84, Suffolk County Council
- Wilmott, T.  
1982
- “Excavations at Queen Street, City of London, 1953 abd 1960, and Roman Timber-Lined Wells in London”, Trans. London and Middlesex Archaeol. Soc. 33, pp. 1-78
- Young, C. J.  
1977
- The Roman Pottery Industry of the Oxford Region*, BAR 43 Oxford