2259

RUNWAY EXTENSION SITE & ASSOCIATED WORKS
SOUTHEND AIRPORT
SOUTHEND-ON-SEA
ESSEX

ARCHAEOLOGICAL STRIP, MAP & SAMPLE

Essex County Council
FIELD ARCHAEOLOGY UNIT

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RUNWAY EXTENSION SITE & ASSOCIATED WORKS
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ARCHAEOLOGICAL STRIP, MAP & SAMPLE

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RUNWAY EXTENSION SITE & ASSOCIATED WORKS
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ARCHAEOLOGICAL STRIP, MAP & SAMPLE

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SUMMARY

An archaeological strip, map and sample investigation was carried out in advance of the construction of a c.240m extension to the southwest end of the runway at London Southend Airport. The associated diversion route of Eastwoodbury Lane and alterations to the churchyard wall of St Laurence and All Saints Church were also monitored.

Despite Iron Age and Roman remains having been previously found immediately adjacent, within the RBS Cards Operation Centre site, no such features were found within the road diversion route or runway footprint. Instead, virtually all identified archaeological remains were either of prehistoric or post-medieval/modern date.

The prehistoric remains comprised a scatter of late Bronze Age pits, ditches, gullies and a possible hearth base found in the road diversion and runway extension areas. These are of a similar type and density to prehistoric remains found elsewhere in and around the airport and suggest a widespread occupation and exploitation of the landscape by this time.

No evidence for the Saxon and medieval Eastwood Manor, or any other medieval activity, was identified. Nor were remains of post-medieval farmsteads and settlements along Eastwoodbury Lane located, other than the foundation of a modern agricultural building. However, the shallow depth of the strip at the north-east end of the runway extension probably did not allow the exposure and investigation of such remains.

No significant remains were found during monitoring of the removal of the eastern part of the churchyard wall, (closest to the possible site of the Eastwood Manor, or within the foundation trench cut for a new wall along its west side.

1.0 INTRODUCTION

This report presents the results of archaeological investigation carried out by Essex County Council Field Archaeology Unit (ECC FAU) in advance of the construction of a c.240m extension to the southwest end of the runway at London Southend Airport and associated works. The fieldwork was undertaken in response to a condition placed on planning consent by Southend Borough Council, in line with Planning Policy Statement 5 and direction from the SBC archaeological officer, Mr Ken Crowe, to undertake a strip, map and sample investigation of all significant groundworks associated with the construction of the runway extension scheme. The fieldwork was carried out in accordance with an approved written scheme of investigation (ECC FAU 2010), and was monitored by the SBC archaeological officer on behalf of its planning section. The work, as reported here, comprised the following:

- Strip, map and sample of road diversion route
- Monitoring of the runway extension footprint strip
- Monitoring of alterations to the churchyard wall of St Laurence and All Saints Church

Bound and digital copies of this report will be supplied to Stobart Developments (including a copy for the Local Planning Authority), the SBC archaeology officer and the Essex Historic Environment Record (EHER). A digital copy of the report will be uploaded on the Online Access to the Index of Archaeological Investigations (www.oasis.ac.uk) and the digital version of the report will be accessible via the Archaeology Data Service website (http://archaeologydataservice.ac.uk/). The site archive and copies of the report will be deposited at Southend Museum.

2.0 BACKGROUND

2.1 Location, Geology and Topography (Fig. 1)

The scheme area was located at the south-western end of London Southend Airport (TQ 8607588653), the vast majority sited between Nestuda Way to the west, Eastwoodbury Lane to the north and the RBS Cards Operation centre to the south off Thanet Grange (Fig.1).

Prior to construction works, much of the scheme area was under arable cultivation and lay within the airport's 'visual strip' that extends off the end of the existing runway. The south-eastern part of the scheme area was public amenity land that included a footpath, children's playground amongst rough pasture and a car park alongside Eastwoodbury Lane. Hedges

and fences separated the visual strip and public amenity areas. Six cottages occupying smallholdings alongside Eastwoodbury Lane also fall within the scheme area. St Laurence and All Saints church is located immediately alongside the north-eastern limit of the scheme area, part of its churchyard wall technically within.

The church stands at *c.*14.5m OD and the land within the scheme area falls away slightly to its west and south. The geology of the area comprises estuarine alluvium alongside the tributary brook of the River Roach that runs just north of the churchyard and, more widely, aeolian drift deposits (Institute of Geological Sciences, Engineering Geology Map of South Essex, Sheet 1 1975).

2.2 History and Archaeology

2.1.1 General

The runway extension scheme area lies within a general area of established archaeological interest and potential. A number of investigations have been undertaken and findspots recorded in both the immediate and wider proximity. The vicinity has also been the subject of various desk-based assessments and environmental impact assessments in recent years, which have served to collate and evaluate the evidence produced by previous works. Most pertinent to this scheme are the DBA and Cultural Heritage chapter of EIA for St Laurence and All Saints church produced by ECC FAU (Heppell 2003) and the DBA for the current scheme produced by Jacobs (Preston 2009).

The known archaeological content and potential of the surrounding vicinity has been extensively collated and considered in a number of recent desk-based assessments necessitated by other development proposals (e.g. Heppell 2003; Heppell 2004). This content includes extensive Iron Age, Roman and Saxon remains at the Temple Farm Industrial Estate to the north-east (EHER 13751-5, 9733-5, etc.), Neolithic burials and Iron Age pottery to the north within the airport area (EHER 9605-6), and a range of Roman to post-medieval remains beneath the housing immediately east of Southend Road (EHER 9685). Particularly indicative of the general incidence of multi-period remains in the landscape, are the prehistoric and Roman sites at Westbarrow Hall Farm (Dale 2001) which lies to the north of the scheme area.

Within the confines of the airport, on its east side, where construction of a new rail station, car parking and terminal is ongoing, evaluation and subsequent monitoring by FAU has identified the presence of prehistoric (probably Bronze Age) and medieval remains (EHER 18227-8) and recorded a number of buildings associated with the WW2 airfield (Atkinson

2009, 2010; Ennis 2007; Germany 2005; Sparrow 2011; Wardill 1998). Outside the airport, immediately to its south-east investigations at Warners Bridge (EHER 16956) revealed further prehistoric ditches of probable Bronze Age date (Foreman and Germany 1997).

More specific to the runway extension scheme area, there are a number of 'sites' identified either within it or in the near vicinity. These span the prehistoric to modern periods and are described below.

2.1.2 Prehistoric

The reputed findspot of a Neolithic polished axehead lies a short distance to the east of replacement car park and Roundabout 2 of the diverted road route (NMR/SMR 418956). Monitoring of the construction of the Tesco supermarket site to the south of the scheme area and of the fieldwalking along the route of Nestuda Way only retrieved a small amount of worked flint.

2.1.3 Iron Age & Roman

Iron Age and Roman remains were identified during monitoring of construction of the RBS Cards Operation Centre site, immediately to the south of the road diversion route and its Roundabout 1 (NMR/SMR 1471283). Ditches and pits suggest the presence of a possible settlement site of Early Iron Age and Late Iron Age/Roman date (Roy 2003). However, only a single sherd of Roman pottery was recovered from the Tesco supermarket site to its south-east. Monitoring conditions at the RBS site were poor and the site is likely to have been more extensive and complex than recorded.

2.1.4 Saxon & Medieval

A 7th century Saxon coin, a Merovingian Tremesis, was found in 1960 (NMR/SMR 418969) to the south-east of the site. The medieval manor of Eastwoodbury is reckoned to have Saxon origins and is mentioned in the Domesday Survey (1086). However, its location is unknown but is thought to likely be in the vicinity of the present church, which may itself replace an earlier Saxon church.

St Laurence and All Saints church is a Grade I listed building (LB no. 122902) immediately adjacent to and impinged upon by the northern limit of the runway extension scheme area. Constructed in the early 12th century, with 13th, 15th and 16th century additions, it also includes some Roman brick in its fabric. The church served the small settlement of Eastwood and the surrounding area. The south side of its churchyard was until recently bounded by a Victorian brick wall to the south and by tree- and hedge-lines to the north,

west and east. Part of the boundary wall nearest the runway has been removed and replaced with a hedge as part of the scheme works.

2.1.5 Post-medieval

The 1777 Chapman and Andre map and later the1st edition OS map shows a substantial house known as 'Eastwoodbury' adjacent to the church and on the north side of Eastwoodbury Lane (more-or-less at the end of the present runway). Set in grounds of broadly similar proportions to the churchyard, this property could have significantly earlier, medieval, origins and it has been speculated that it might represent the location of the original manor house. This building survived until the post-war period but was demolished as part of the construction of the present runway by the early 1960s. No previous archaeological investigation of this site has been undertaken.

A large building within a roughly square plot is also depicted on the Chapman and Andre map as being present on the opposite, southern, side of Eastwoodbury Lane. By the time of the 1st edition OS map (1880s) this property had developed into a recognisable courtyard farm complex. The farmstead survived until the 1970s. A pair of cottages that were constructed in the later 19th century immediately to its south is all that remain of this site. These are some of the properties to be demolished as part of the scheme, the others being a group of four smallholdings just to the north of the runway extension.

Lastly, there are a small number of historic boundaries and paths that appear on the on 1st edition OS that cross the scheme area.

2.1.6 Modern

The modern period remains (i.e. 20th century) all relate to the development of the airfield and airport from World War 2 onwards. Other than the existing runway itself, significant remains in close proximity to the scheme area are in the form of a single pillbox associated with the defence of the WW2 airfield. Located close to the proposed lighting located off the end of the runway extension south of Nestuda Way, it is a Type 24 hexagonal pillbox (NMR/SMR 1426457) and an apparent sole-survivor of a number of such structures around this end of the airfield.

3.0 AIMS AND OBJECTIVES

3.1 Aims

The general aim of the excavation was to establish the location, extent, date, character, condition, significance, and quality of any surviving archaeological remains exposed during

groundworks and to consider the results of the work in relation to the regional research agenda for the east of England (Brown & Glazebrook 2000).

3.2 Objectives

The specific objectives of the investigation were:

- To identify and investigate any further Iron Age or Roman remains indicative of settlement or exploitation of the landscape
- To identify and investigate any remains relating to the Saxon and medieval periods in order to locate the site of Eastwood Manor and to understand its origins and development.
- To identify and investigate remains of post-medieval phases of settlement at, and associated with, Eastwood and with the adjacent farmstead.

4.0 METHOD

The archaeological fieldwork was carried out in accordance with the Institute for Archaeologists *Standard and Guidance for Archaeological Excavation (rev.2008)* and *Watching Brief (rev. 2008),* and with the Association of Local Government Officers' *Standards for Field Archaeology in the East of England* (Gurney 2003). The ECC FAU uses its own recording system (ECC FAU 2006). Topsoil and subsoil removal was undertaken in the presence of an archaeologist, to either the archaeological horizon or to required construction depth if higher. All identifiable archaeological deposits were investigated and recorded by hand, as per the methodology stated in the WSI. All artefactual material was collected from investigated features and deposits and removed from site for analysis. All deposits judged to have potential for the survival of environmental remains (e.g. charred plant and small animal) were bulk soil sampled for processing and analysis.

Originally, the SBC Archaeology officer specified the archaeological strip, map and sampling of all groundworks associated with runway extension scheme. This was to include the road diversion route between Eastwoodbury Lane and Nestuda Way, the associated relocated public car park area, and the footprint of the Runway extension earthworks. In addition, archaeological monitoring and recording was to be undertaken on the following associated/ancillary works, as appropriate:

- Closure of part of Eastwoodbury Lane
- Refurbishment of St Laurence and All saints church car park

- Removal of part of churchyard wall
- Clearance of six properties along Eastwoodbury Lane, either side of the runway extension
- Relocation of children's playground

Various of these items were not subsequently subject to archaeological coverage due to the limited/negligible nature of actual construction impacts (i.e. depth of excavations judged insufficient to significantly impact upon below-ground remains, if present). Consequently, only the groundworks of the following were given archaeological coverage and are reported on below:

- Road Diversion route between Eastwoodbury Lane and Nestuda Way and associated car park
- Runway extension footprint
- Churchyard wall removal and rebuilding

5.0 FIELDWORK RESULTS

5.1 General

Overburden across the different areas was of variable nature and thickness, with a masking deposit of yellowish brown subsoil being encountered within the runway footprint area. A low density of archaeological remains was identified, comprising small pits, gullies, ditches and possible layers. All cut features had evidently been truncated by more recent agricultural activity and were only visible where they intruded into the undisturbed natural deposit. Feature legibility was fair to good, though some disturbance from past construction activity, as well as from farm buildings and modern services was recorded.

The figures and plans referenced in the text are located at the back of the report. Further context details are presented as Appendix 1.

5.2 Road Diversion Route

Prior to the topsoil strip of the road diversion route, the excavation of a 5m-wide easement and trenches for the diversion of mains services located close to Nestuda Way was monitored (Fig.2). Between 0.3-0.4m of ploughsoil was removed, exposing the disturbed surface of the natural deposit (Plate 1). It is suspected that this area had been previously stripped and reinstated, perhaps as part of the construction of Nestuda Way itself. Despite this, a single pit [001], with defined charcoal-rich fills, was identified and investigated (Plate 2). The base of this circular and relatively deep (0.4m) pit appeared to contain a scorched

clay lining (002) at its base - perhaps merely a burnt interface with the natural deposit. Overlying fills 003-5 contained successively less burnt material upwards, but all included small quantities of late Bronze Age pottery.
Two further, more ephemeral and shallow, features [007 and 008] were found just east of the corner of the RSB car park. 007 was a poorly-defined deposit of clay that included prehistoric pottery sherds, a clay spindle whorl and fragments of probable hearth base. 008 was a short length of gully, possibly of natural origin, though Late Bronze Age pottery, baked clay and a Neolithic flint scraper were recovered from its single fill.

Subsequent monitoring of the topsoil strip of the road diversion route between Eastwoodbury Lane and Nestuda Way was conducted along the whole of its c.700m length. The strip was undertaken to a variable width of between 20-40m and, including new public car park area, exposed a total area of c.17,300 sq m (Fig.1). Although the south-western part of the route passed immediately alongside the RBS Cards Operation Centre site, no remains of Iron Age or Roman date were found within the road strip. Instead, the occasional incidence of prehistoric and post-medieval or modern features was recorded.

Oval pit or tree hole 010 (Plate 3) was located off the north corner of the RBS car park. Its fill contained only modern artefacts. A possible ditch (not planned) in this same vicinity was established to be a modern service run.

A possible hearth base, 012, was encountered further east along the road diversion route, near the old playground. A thin spread of charcoal overlay scorched natural and sealed a number of shallow post- or stake-holes that were possibly arranged in a circle (plate 4). No artefacts were found in association, but this feature is speculated to be of prehistoric date.

No significant remains of any date were encountered anywhere else along the length of the road diversion route, though patches of modern rubbish, burning and general ground disturbance were noted, particularly in the vicinity of the since relocated playground.

5.3 Runway Extension Footprint

Approximately 0.30-0.35m of topsoil was removed by mechanical excavator using a toothless bucket from the footprint of the runway extension - a rectangular area of c.45m x 340m. By necessity, baulks were left over the routes of cables and runway lights (e.g. cover plate and Plate 8). In addition a 0.15m thickness of topsoil was removed by bulldozer from the surrounding vicinity (Figs.1 and 3), which was insufficient to expose underlying subsoil deposits and so was not further investigated or monitored.

Across the south-west of the runway extension footprint, the strip was c.0.10m too shallow, leaving a deposit of yellowish brown subsoil overlying and obscuring the archaeological horizon (Plate 5). Toward the south end of the footprint, a prehistoric pot base sherd was present in this subsoil (Plate 6). Removal of the remaining 0.06-0.08m of the subsoil at this location revealed an underlying pit [059] (Plate 7). Relatively large, but shallow, this oval pit contained a significant quantity of late Bronze age pottery and a few fragments of burnt clay. Further late Bronze Age pottery fragments [060] were recovered from the subsoil some 30m to west of this pit, but no obvious underlying feature was located. The north-eastern part of the runway extension footprint also contained an overlying subsoil deposit which was investigated by means of a series of machine-dug trenches to expose the underlying natural deposit. The widespread removal of this masking subsoil was later judged not necessary to do as part of the scheme works. The trenches established that 0.10-0.15m of subsoil overlay the undisturbed archaeological horizon - a generally browner and more clayey natural deposit (Plate 8). These trenches exposed a cumulative area in excess of 700 sq m and, in addition to pit 59 and unstratified pottery 60, revealed the presence further features cut into the natural deposit (Fig. 3).

Ditch 055 ran on a NNE-SSW alignment and was intermittently traced for a distance of c.40m (Plate 9). A short distance to its south, shallower ditch 053 ran on a NE-SW alignment and faded-out at its north-east end (Plate 10). While the fill of 053 contained no artefacts, 055 contained three sherds of Late Bronze Age pottery and both ditches are postulated to probably be prehistoric. Further northeast, gully 57 was a shallow feature traced for a length of 6m (plate 11). Although it contained no artefacts, this too is likely to be prehistoric and could conceivably be a minor continuation of ditch 55.

Modern animal burial 050, that of a juvenile sheep, was also present toward the northeast end of the runway footprint monitored strip. It contained post-medieval pottery, glass and a coal fragment and is likely to be 19th or early 20th century. A modern track, just north of gully 057, was found to cross the runway footprint and can be demonstrated to align with the extant track that runs alongside Eastwoodbury Cottages to the east and probably alongside the barn to the west. Northeast of this, toward and alongside Eastwoodbury Lane, the ground was observed to become increasingly disturbed with modern rubble material apparent in the shallow strip. Remains of an open-sided farm building built of brick on a concrete foundation was also recorded (Fig.3). The opportunity was also taken to observe some new service trenches cut along the south side of Eastwoodbury Lane, opposite the churchyard entrance; no archaeological remains were identified within them. Further reduction of the very north-east end of the runway extension was done during nights, due to

health and safety constraints imposed by daytime use of the existing runway. This was therefore not archaeologically monitored.

5.4 Churchyard Wall

An approximately 38m length of the east end of the churchyard wall alongside Eastwoodbury Lane, closest to the runway, was required to be removed as part of the scheme works (Fig.4). A low-level record of the wall structure was made and the groundworks for the removal of its foundations prior to replacement with a hedge were archaeologically monitored.

The churchyard wall was a Victorian addition to St Laurence and All Saints church; a print illustration of the church, dated 1849, clearly depicts a wooden fence here and so must predate the wall's construction. The 1.2m (4ft) high wall is built of London Stock bricks laid in English bond in a sandy lime/cement mortar. The main part is built in 18-inch brickwork and finishes in a course of ashlar-moulded gault-brick detailing. The top three courses are in narrower 9-inch brickwork capped with limestone coving (Plate 12). A stile through the wall is present further west, adjacent to the entrance gate aligned on the church porch, and is unaffected by these removal works.

Observation of the machined-out foundations of the removed section of the wall revealed no archaeological remains. Further groundworks for the extension of the wall between the west side of the churchyard and the adjacent car park were also monitored (Plate 13). A trench 0.6m wide and up to 0.7m deep was excavated through 0.5m of clay silt topsoil and into a light brown firm silt beneath. No archaeological deposits were identified nor artefacts collected.

The fabric of the removed wall was to be used to construct this length of new wall in similar style.

6.0 FINDS AND ENVIRONMENTAL MATERIAL

by Alan Jacobs

6.1 Finds

A total of 301 fragments of pottery, fired clay, burnt flint, coal, glass, worked flint, and animal bone weighing a total of 1991g, were recovered from ten stratified and one unstratified contexts. All of the material has been sorted into context and recorded by count and weight. The finds are described and tabulated as Appendix 2.

Prehistoric pottery

All fabrics are defined by the Essex County Council Prehistoric Type Series, unless otherwise stated (Brown 1988 and 1995).

A total of 203 sherds, weighing 1041g, were recovered from the topsoil and nine stratified contexts (002, 003, 004, 005, 007, 009, 054, 058 and 060). These nearly all consisted of extremely abraded small fragments and as such no rim forms were recovered. The recovered material consisted primarily of flint-tempered fabrics B, C K, Q and W (contexts 002, 003, 004, 005, 007, 054, 058 and 060) these were evidently fragments of large coarse ware jars. Finer fabrics G and M (contexts 002, 005 and 009) appear to have been smaller finer vessels. A relatively few sherds displayed evidence of decoration (context 003 and 004) this consisted of diagonal or horizontal lines of impressed dots. Indications of lugs (context 060) or shoulder decoration (contexts 007 and 009) were also present on a few sherds. This style of decoration would fit with a Late Bronze Age date.

Most of the material from this group is extremely abraded and fragmentary. The balance of the sherds would appear to date to the Late Bronze, no earlier forms being identified. The assemblage is very similar in character to material recovered from extensive earlier excavations (Germany and Foreman 1997; Wardill 1998; Germany 2005; Atkinson 2009; Atkinson 2010). The lack of decoration and extremely abraded nature of the pottery is common to all of these excavations. The average sherd weight in this assemblage is 5.4g. The assemblage recovered from the Warner's Bridge excavation (Germany and Foreman 1997) was of similar size at 1555g overall, while individual sherds averaged 4.3g. The Warner's Bridge material was tentatively dated to the 9th century BC, based upon the dominance of the flint tempered wares and the lack of decoration on the thinner walled finer vessel fragments. This would be a very similar group.

Post-medieval pottery by Helen Walker

The post medieval pottery consisted of just two sherds weighing 8g. A single sherd of post-medieval red earthenware (wt 4g) was recovered from context 11. It is unglazed and highly fired and may be a piece of modern flower pot, although an earlier date cannot be precluded. The external surface shows faint rouletted bands and both surfaces are iron-stained. The sherd has been discarded. A single sherd of post medieval red ware, weighing 4g, was also recovered (context 051). The sandy fabric with reduced surfaces indicates a 16th century date for this sherd, although its small size could mean it is later in date.

Worked Flint

The struck material consisted of three fragments recovered from two contexts (002 and 009) and weighing 52g. This material comprised two highly patinated and abraded flakes and a single scraper which exhibited little evidence of abrasion on the surface ridges. The single definable artefact was recovered from an apparently natural feature (context 008) and could be dated to the Neolithic. There is clearly too little material to draw any meaningful conclusions from.

Burnt flint

A total of 12 fragments of burnt flint were recovered from just three contexts (002/003, 004 and 005) and weighed 21g in total. Not enough material was recovered for any meaningful interpretation to be undertaken, though its inclusion with Late Bronze Age pottery in pit 001 is entirely usual for prehistoric remains.

Fired Clay

A total of thirteen highly fired clay fragments, weighing 692g, were recovered from four contexts (004, 007, 009 and 058). All were associated with prehistoric pottery and are most likely of Late Bronze Age date. Most of the fragments are highly fired and abraded, and are probably fragments of a hearth lining rather than structural daub. A large and thick fragment recovered during excavation (context 007), was presumed by field staff to be part of a loom weight, but belongs to this group.

A single fired clay object was recovered; a small conical spindle whorl (context 007). This is broken and has perhaps been burnt, but is most likely of Bronze Age date.

Other finds

74 fragments of animal bone weighing 124g were recovered from a single post-medieval context (051). The assemblage consisted exclusively of juvenile sheep bones, probably from a single animal, and included fragments of skull with butchery marks, rib, vertebrae and long bone fragments. The soft condition of the bone and its relatively good survival in this context support a fairly modern date for its deposition. In addition, single fragments of bottle glass and coal, weighing 22g and 1g respectively, were recovered from modern context 011.

Conclusion

In overview, the finds assemblage from this site is very scrappy, the pottery lacking clearly definable prehistoric forms. This is similar to sites previously excavated in the area

(Germany and Foreman 1997; Wardill 1998; Germany 2005; Atkinson 2009; Atkinson 2010). The flint assemblage is too small to be of significance, though is perhaps an indication of the peripheral nature of this site. The only object of particular interest recovered during excavation is the spindle whorl which, along with the fired clay, gives some hint of domestic activity in this area during the Late Bronze Age.

The prehistoric material should be retained and could be usefully studied and published in conjunction with other assemblages from this vicinity as and when the opportunity arises. The post-medieval and modern fragments have been discarded.

6.2 Environmental material

A total of four soil samples were collected from two pits (001 and 055) of prehistoric date, though due to a labelling mix-up two of those from pit 001 were processed together (Samples 2 and 3). Selected primarily because of their perceived high charcoal content and potential for survival of carbonised plant remains, these bulk samples were retrieved to investigate the nature and function of the pits and their fills, and the wider environment of the site. Processing was also undertaken to recover artefacts. These were incorporated with the hand-excavated material and are discussed in the finds report.

Three of the bulk soil samples were processed by wet sieving with flotation using a 0.5mm mesh and collection of the flotation fraction (flot) on a 0.5mm sieve. The residue was then dried and separated using 2mm and 4mm sieves. All the material larger than 2mm (the coarse fraction) was sorted and assessed by eye, the finer material was retained. The flot was dried, examined by eye and assessed for the presence of ecofactual material such as carbonised seeds. The fourth sample was not wet-sieved, but was visually inspected for obvious ecofactual content and extraction of artefacts prior to its discard.

The results of the processing and study of the bulk soil samples are summarised as Appendix 3. All flots were found to contain mostly modern root fibre and small amounts of fine charcoal. The coarse fraction of Samples 1-3 contained no significant ecofactual material. The fine fractions included small fragments of charcoal, with rare occurrence of carbonised seed remains noted in Sample 1, from the upper fill of pit 001.

The low quantities and poor quality of the organic material indicates little potential for detailed study of these samples to further our understanding of the prehistoric environment. The presences of modern contamination, in the form of invasive root fibre, and the small numbers of seeds present restrict the value of further study. The charcoal is very

fragmentary limiting the possibility of identification to species. No further work is judged necessary for any of this environmental material.

7.0 CONCLUSIONS & ASSESSMENT OF RESULTS

The strip, map and sample strategy specified by the SBC archaeologist proved to be adequate for the investigation of the road diversion route, but the practicalities of construction and airport operation requirements dictated the reversion to a lesser monitoring and recording approach for the rest of the works subject to archaeological coverage. This two-tier strategy has produced results of variable standard, accuracy and reliability - allowing clear insights into the nature, density and survival of below-ground features and deposits along the road route, but a less clear view of the content of the runway footprint and the general vicinity of Eastwoodbury Lane.

Being immediately adjacent to the RBS Cards Operation Centre site, where monitoring in 2002-3 identified the presence of significant Iron Age and Roman remains (Roy 2003), it was anticipated to encounter further remains of this date within the road diversion route and perhaps even in the runway extension footprint. However, the absence of Iron Age and Roman remains, even as residual or unstratified artefacts, demonstrates that this particular site does not extend this far north and west. Instead, virtually all identified archaeological remains across the scheme groundworks were either of Bronze Age or post-medieval/modern date. Discussion of the significance of the results of this work is presented by broad period, below.

Prehistoric

Although the various pits, gullies and hearth located within the road route and runway extension footprint do not facilitate any significant understanding of the nature of the prehistoric occupation and land use of this vicinity of the landscape, their type and density is similar to remains found elsewhere during previous archaeological investigations within the airport and its surrounding area and, as such, they add to the general picture of widespread settlement and exploitation by the Late Bronze Age. The possible fire-pit, hearth base and spindle whorl all hint at the presence of an occupation site - either nearby or else already largely removed by subsequent agricultural activity.

Medieval and Later

In the absence of Iron Age and Roman features for reasons noted above, the later archaeological remains found are almost entirely of post-medieval and modern date. As

such the few pits, animal burial, track and other areas of ground disturbance represented are not particularly significant or informative. That no remains relating to the Saxon and medieval periods, particularly in relation to the site of Eastwood Manor, were encountered is almost certainly due to the restricted nature of investigation facilitated by the scheme works at the locations of greatest potential. As highlighted by the Written Scheme of Investigation prepared in advance of this work, these specific areas of potential were identified along Eastwoodbury Lane and in particular adjacent to the church - at the end of the existing runway. However, the limited depth of strip at the north-eastern end of the runway extension footprint, together with inconvenient access dictated by airport health and safety in relation to aircraft movements, did not permit adequate exposure, observation or investigation of below-ground remains here.

This is equally true for the investigation of remains of post-medieval phases of settlement at Eastwood which, judging from historic mapping, are likely to exist at the same locations - these perhaps being later developments of the medieval settlements themselves. The foundations of the demolished modern farm building found just south of Eastwoodbury Lane provides a hint that other below-ground remains of settlements and structures that were cleared as the airport expanded in the later 20th century were indeed present and some may well survive within the peripheral and less-impacted parts of the runway extension area.

The monitoring of the removal of the eastern part of the churchyard wall and of the cutting of the foundation trench for the new section of wall along the west side did not reveal any significant evidence relating to the origins or development of the church, or for other medieval activity - despite the wall removal being located in close proximity to the site of the former vicarage and possible earlier Eastwood Manor.

ACKNOWLEDGEMENTS

The ECC FAU would like to thank Stobart Developments for commissioning and funding the archaeological excavation. Stobart Developments' Project Managers, George Smith, Steve Harker and Matt Taylor, and staff of Buckingham Group, are thanked for their assistance in facilitating the fieldwork. The archaeological fieldwork was variously supervised by Phillippa Sparrow, Adrian Scruby, Trevor Ennis and Andrew Letch. The finds were processed, analysed and reported upon by Alan Jacobs, with guidance from Hazel Martingell on the worked flint assemblage and from Nigel Brown on the prehistoric pottery. The figures were produced by Andrew Lewsey. The project was managed by Mark Atkinson, who also completed and edited the report, and was monitored by Ken Crowe for Southend Borough Council.

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APPENDIX 1: FIELDWORK DATA

Feature No	Type	Filled by	Feature Description	Date
001	Pit	002-5	Circular. 0.7m x 0.66m x 0.4m deep. In-situ burning	LBA
002	Fill of 001	-	Bottom fill. Yellow brown clay with fire reddened patches	LBA
003	Fill of 001	-	2nd fill. Black silt with fired clay flecks	LBA
004	Fill of 001	-	3rd fill. Dark brown-grey silt, inc. pottery	LBA
005	Fill of 001	-	Upper fill. Mid yellow-brown sandy silt, inc. pottery	LBA
006	Slot thru 007	-	1.35m x 0.8m x 0.322m deep slot dug across clay deposit	-
007	Layer	-	Dark red-orange clay, inc. pottery, baked clay, spindle whorl	LBA
008	Nat feature	009	Channel-like.1.3m x 0.26m x 0.08m deep.	Prehist.
009	Fill of 008	-	Mid orange-brown clayey silt, inc. pottery and flint scraper	Prehist.
010	Pit/tree hole	011	Oval. 1.7m x 1.83m x 0.3m deep. Disturbed base.	Modern
011	Fill of 010	-	Mid grey-brown sandy silt, inc. pot and glass	Modern
012	Hearth base?	-	Surface spread. 1.1m x 0.9m x 0.03m deep. Fire reddened.	Prehist?
013-49	-	-	*Unused numbers*	-
050	Pit	051	Small near-circular pit, 0.52m x 0.58m x 0.17m deep	Modern
051	Fill of 050	-	Dark grey-brown silty clay, inc. animal skeleton, pot	Modern
052	Fill of 053	-	Mid yellow-brown clay silt. Occas charcoal. No finds	Prehist?
053	Ditch	052	ENE-WSW aligned. 15m+ x 0.78m x 0.34m deep. Fades at northern end.	Prehist?
054	Fill of 055	-	Greyish brown clay silt, charcoal toward bottom	LBA
055	Ditch	054	NE-SW aligned. 4.4m+ x 1.35m x 0.68m deep.	LBA
056	Fill of 057	-	Yellow-Brown clay silt, occas charcoal flecks. Pot crumb.	Prehist?
057	Gully	056	NE-SW aligned. 6m+ x 0.52m x 0.13m deep.	Prehist?
058	Fill of 059	-	Light/mid greyish brown clay silt, baked clay flecks, pot	LBA
059	Pit	058	Oval, 0.9m x 0.66m x 0.1m deep. Flat bottom.	LBA
060	Finds	-	Unstrat pottery findspot within subsoil	-

APPENDIX 2: FINDS MATERIAL

Ctxt No.	*Feature*	*Count*	*Wt (g)*	*Description*	*Date*
002	001	1	2	Worked flint, flake, white patinated fabric	prehistoric
		4	20	Prehistoric pottery sherds, fabric M, abraded.	Late Bronze Age
		3	4	Prehistoric pottery , fabric K, small abraded frags.	Late Bronze Age
002/003 (from mixed soil sample)	001	7	16	Prehistoric pottery sherds, fabric M, abraded.	Late Bronze Age
		7	38	Prehistoric pottery , fabric K, small abraded frags.	Late Bronze Age
		3	4	Prehistoric pottery sherds, fabric H, abraded.	Late Bronze Age
		5	2	Burnt flint fragments	
003	001	2	5	Prehistoric pottery, fabric W, small abraded frags.	Late Bronze Age
		1	2	Prehistoric pottery sherd, fabric W, small abraded fragment with line of horizontal dots decorating outer surface.	Late Bronze Age
004	001	6	5	Burnt flint, fragment	
		6	106	Baked clay, highly fired and abraded fragments.	
		18	192	Prehistoric pottery, fabric W, inc. small abraded fragment with lines of diagonal dots decorating outer surface.	Late Bronze Age
		5	26	Prehistoric pottery, fabric K, small abraded frags.	Late Bronze Age
		4	16	Prehistoric pottery sherds, fabric H, abraded.	Late Bronze Age
005	001	1	14	Burnt flint, fragment, cortex surviving on exterior.	
		9	34	Prehistoric pottery sherds, fabric M, abraded.	Late Bronze Age
		4	32	Prehistoric pottery sherds, fabric K, abraded.	Late Bronze Age
		4	18	Prehistoric pottery sherds, fabric F, abraded.	Late Bronze Age
007	-	1	530	Baked clay, large fragment of pit or hearth lining. Upper surface fairly intact, base merging with soil scorched.	
		1	30	Baked Clay, conical spindle whorl, partly burnt and fragmented. 46mm diameter? 24mm high.	
		5	52	Prehistoric pottery sherds, fabric Q, includes an unabraded fragment of the shoulder of a large urn with a raised cordon.	Late Bronze Age
009	008	3	32	Baked clay, highly fired and abraded fragments.	
		1	2	Worked flint, flake, white/grey patinated fabric	prehistoric
		1	58	Worked flint, scraper, 55mm by 42mm by 23mm. Dark grey fabric with lighter grey patches. Retouched along 60% of convex scraping edge, traces of cortex.	Neolithic
		11	42	Prehistoric pottery sherds, fabric G, shoulder of large jar, raised decoration.	Late Bronze Age
011	010	1	1	Coal fragment	Modern
		1	22	Modern glass, base of beer or wine bottle, 19th to 20th century	Modern
		1	4	Post-medieval pottery, red earthenware sherd, probably modern plant pot fragment	Modern
051	050	1	4	Post-medieval pottery, red ware sherd, probably 16th century, but could be more modern.	16th century? Post Medieval
		76	124	Animal Bone, juvenile sheep bones, including fragments of skull with butchery marks, rib, vertebrae and long bone fragments. Modern?	Post-medieval
054	055	3	18	Prehistoric pottery, fabric C, abraded fragments.	Late Bronze Age
058	059	38	146	Prehistoric pottery sherds, fabric C, abraded fragments of large urn.	
		27	88	Prehistoric pottery sherds, fabric B, abraded fragments of small coarse vessel.	
		2	14	Baked clay, highly fired and abraded fragments.	
060	U/S	39	302	Prehistoric pottery sherds, fabric C, some fragments have indications of thickening, lugs or decoration.	Late Bronze Age
Total		*301*	*1991*		

APPENDIX 3: ENVIRONMENTAL SAMPLE MATERIAL

Sample No.	***Context No.***	***Context type***	***Weight/ Volume***	**Residue *(g)***	***Flot (g)***	***Notes***
1	004	Fill of pit 001	18kg / 20 litres	318	8	Small amounts of charcoal, and very small amount of burnt flint and carbonised seed.
2	003	Fill of pit 001	17kg / 18 litres	58	4	Small amounts of charcoal, and very small amount of burnt flint, baked clay fragments.
3	002	Fill of pit 001				
4	-	-	-	-	-	Unused.
5	054	Fill of pit 055	9kg / 10 litres	108	n/a	Not wet sieved. Small amounts of charcoal, and very small amount of burnt flint manually extracted.

APPENDIX 4: ARCHIVE INDEX

RUNWAY EXTENSION SITE & ASSOCIATED WORKS, SOUTHEND AIRPORT SOUTHEND-ON-SEA, ESSEX (SOAR 10)

Index to the Archive

File containing:

1. Introduction

1.1 Brief for Excavation
1.2 WSI for Excavation

2. Research Archive

2.1 Excavation Report (1 bound, 1 unbound copy)
2.2 Finds Archive Report
2.3 Environmental samples/material report
2.4 CD Rom (inc. reports, photo images, drawing files)

3. Site Archive

3.1 Watching brief record sheets
3.2 Context Record Register
3.3 Original Context Records
3.4 Soil Sample Register
3.5 Soil Sample Record Sheets
3.6 Plans Register
3.7 Sections Register
3.8 Levels Register
3.9 Photographic Register + thumbnail sheet of digital images
3.10 Photograph record (hard copy colour prints)
3.11 Misc. scheme plans and other info

Not in Files:

Site Drawings:
10 plan/section drawing sheets (4 large, 6 small; pencil on drawing film)

1 box of finds
(inc. pottery, worked flint, burnt bone, stone objects, tile & brick, fine enviro residues and ecofacts)

APPENDIX 5: EHER SUMMARY SHEET

Site Name/Address: Runway Extension site and associated works, Southend Airport, Southend-on-Sea, Essex	
Parish: Eastwood	***District:*** Southend BC
NGR: TQ 86075 88653	***Site Code:*** SOAR10
Type of Work: Archaeol. strip, map & sample and monitoring	***Site Director/Group:*** P. Sparrow, A. Scruby, T. Ennis, A. Letch - ECC FAU
Date of Work: 04/10/10 - 8/11/10, 23/02/11-08/03/11, 15/08/11- 14/09/11, 29/09/11-07/11/11	***Size of Area Investigated:*** c.3.26ha
Location of Finds/Curating Museum: Southend Museum	***Funding Source:*** Developer
Further Work Anticipated? No	***Related EHER Nos:***
Final Report: EAH round-up	***OASIS Ref:*** 86303
Periods Represented: Prehistoric, post-medieval/modern	

SUMMARY OF FIELDWORK RESULTS:

Groundworks for the construction of an extension to the south-west end of the runway, road diversion beween Eastwoodbury Lane and Nestuda Way were subject to a strip/map/sample strategy. Monitoring of modifications to the St Laurence & All saints churchyard wall was also carried out.

Prehistoric
A scatter of late Bronze Age pits, ditches, gullies and a possible hearth base were found in the road diversion and runway extension areas. Pottery, burnt clay and a baked clay spindle whorl in these features suggest occupation in this vicinity. However, construction depths within the runway area were often too shallow to expose any remains present and more prehistoric remains were probably present. These features were of similar type and density to prehistoric remains found elsewhere in and around the airport and suggest widespread occupation and exploitation of the landscape by this time.

Iron Age & Roman
Despite Iron Age and Roman remains being found at the RBS cards Operation centre (Roy 2003), just south-east of the road diversion route, none were encountered here. It is presumed that the site does not extend this far north and west.

Medieval & Post-medieval
No evidence for the Saxon and medieval Eastwood Manor or other medieval activity was identified. Nor were remains of post-medieval farmsteads and settlements located. The shallow depth of the strip of the north-east end of the runway extension, together with restrictive working conditions imposed by airport operation, did not facilitate adequate exposure and investigation of such remains. No significant remains were found during monitoring of the removal of the eastern part of the churchyard wall (closest to the possible site of the Manor?) or the foundation trench cut for a new wall along its west side.

Modern
A Post-medieval / modern farm trackway and footings of a brick farm building were observed toward the north-east end of the runway extension footprint. These suggest that further below-ground remains of cleared farm complexes could be present here. An animal burial and a pit/tree-hole of 19-20th century date were found on the road diversion route.

Previous Summaries/Reports:	
Author of Summary: Mark Atkinson	***Date of Summary:*** 19 December 2011

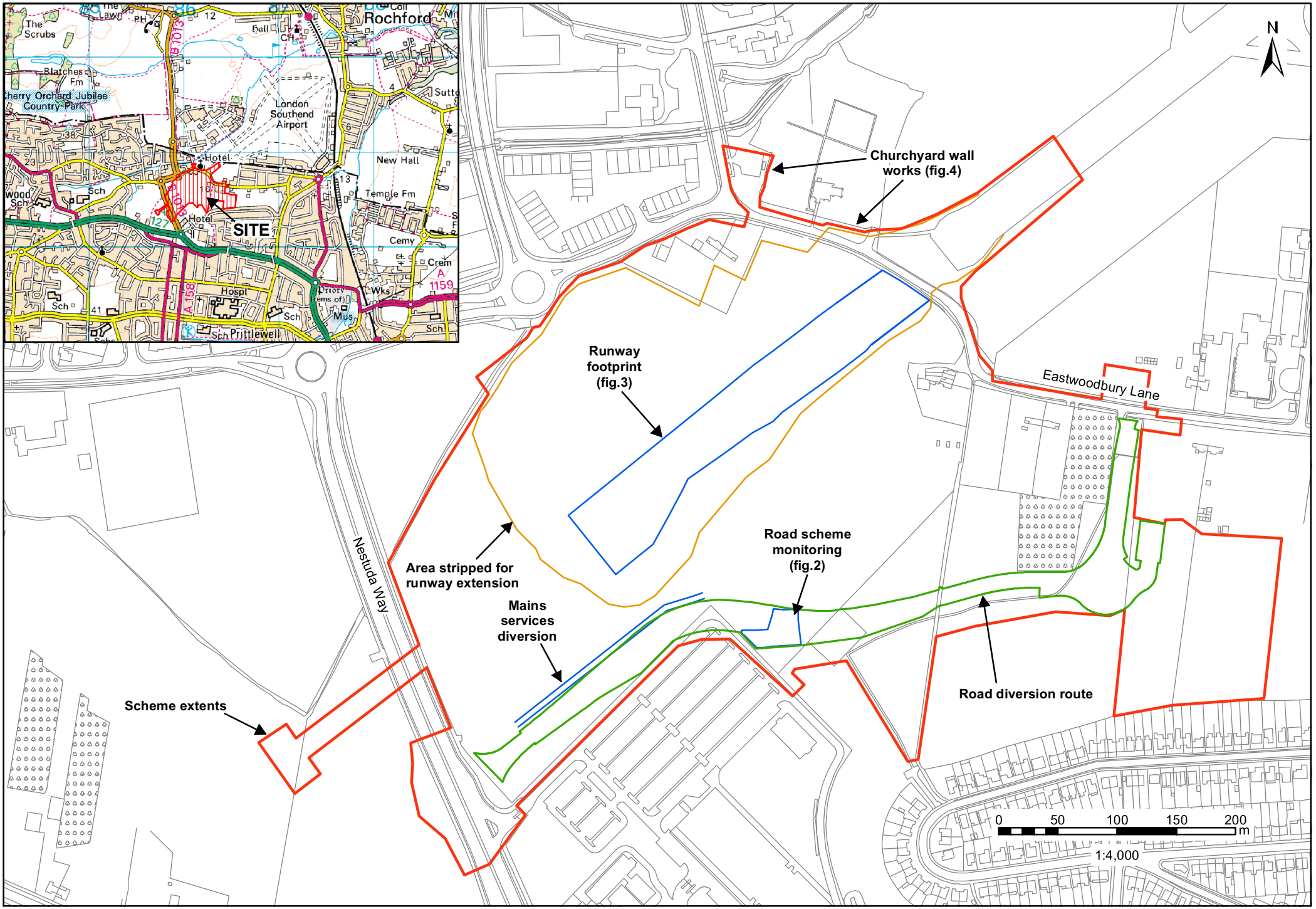

Fig.1. Site location

Essex County Council
Field Archaeology Unit

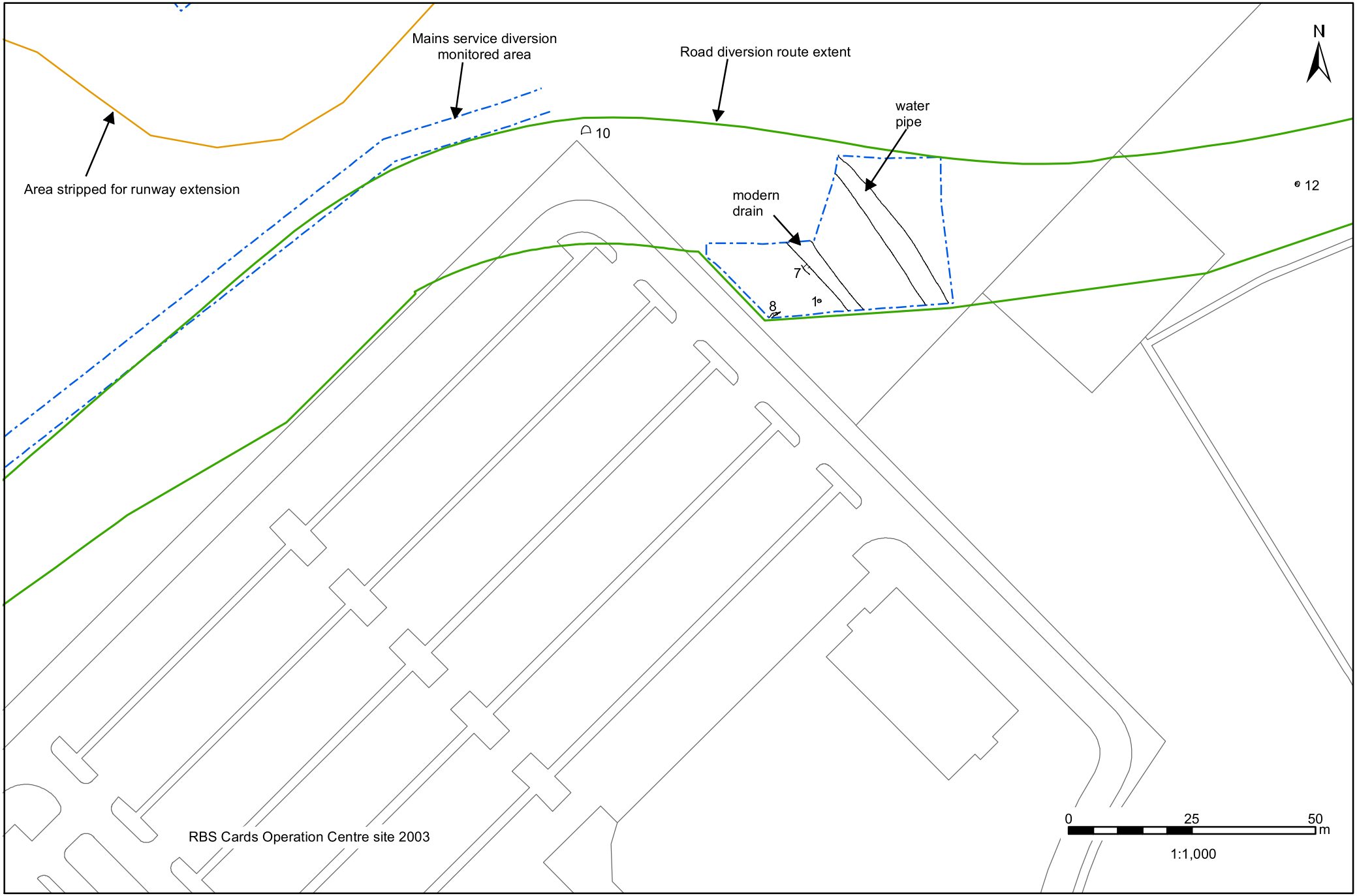

Fig.2. Mains services diversion works and south-west end of road diversion route

Essex County Council
Field Archaeology Unit

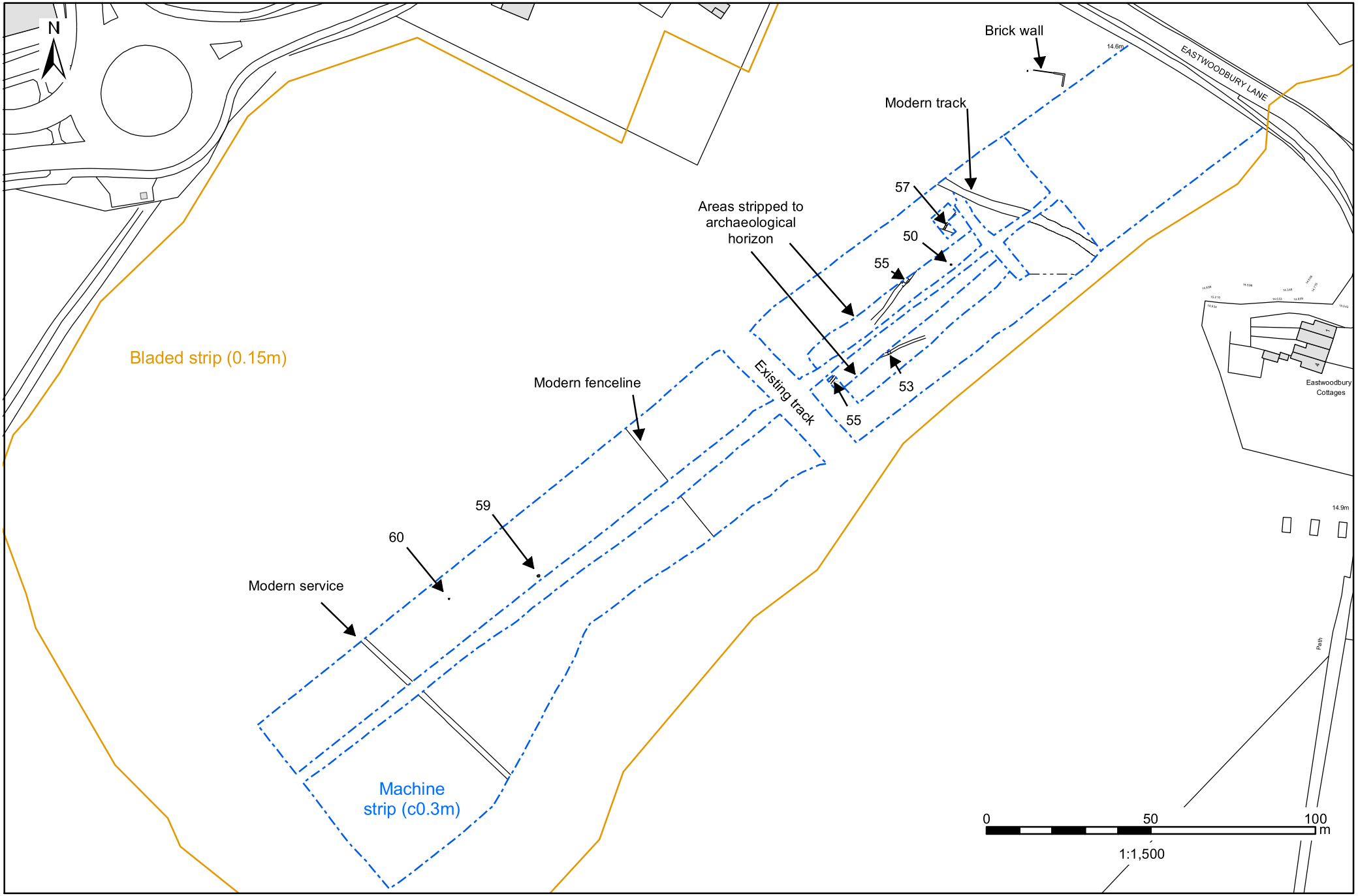

Fig.3. Runway footprint

Essex County Council
Field Archaeology Unit

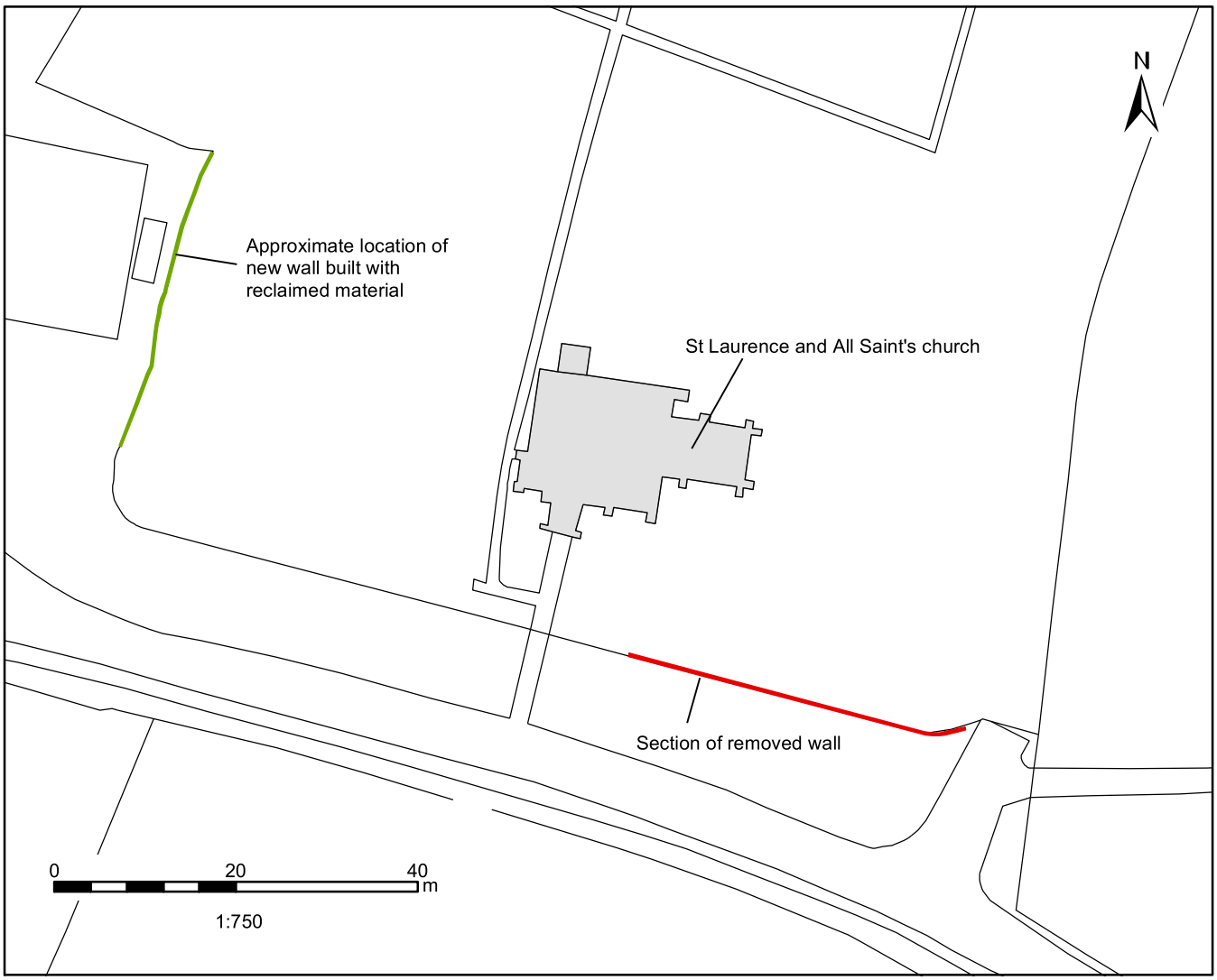

Fig.4. Churchyard wall

Essex County Council
Field Archaeology Unit

Plate 1. Easement strip for mains services diversion works, looking east

Plate 2. Pit 001

Plate 3. Pit / tree hole 010 (1m scale)

Plate 4. ?Hearth base 012 (0.5m scale)

Plate 5. Runway extension topsoil strip, looking north-east

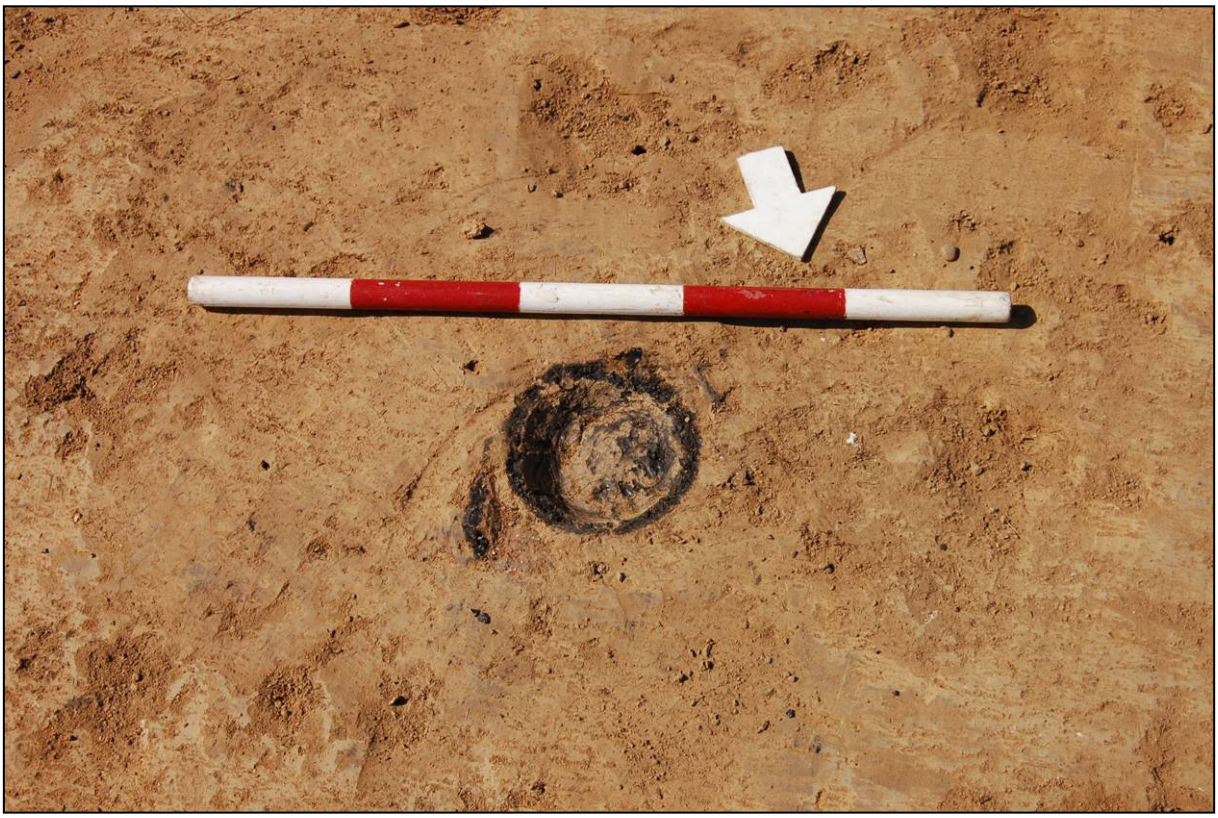

Plate 6. Potbase sherd in subsoil layer (0.5m scale)

Plate 7. Pit 059

Plate 8. Deeper strip of Runway extension footprint

Plate 9. Ditch 55, looking SSW (1m scale)

Plate 10. Ditch 53, looking NNE (1m scale)

Plate 11. Gully 057, looking north (0.5m scale)

Plate 12. Churchyard wall, during removal works

Plate 13. Foundation trench for new wall on west side of churchyard