THAMES INDUSTRIAL PARK, PRINCESS MARGARET ROAD, EAST TILBURY, ESSEX, RM18 8RH

ARCHAEOLOGICAL TRIAL TRENCH EVALUATION

LOCAL PLANNING AUTHORITY:
THURROCK COUNCIL

SITE CODE: ETPM17

MARCH 2017

PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

THAMES INDUSTRIAL PARK, PRINCESS MARGARET ROAD, EAST TILBURY, ESSEX; AN ARCHAEOLOGICAL EVALUATION

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Pre-Construct Archaeology Limited			K4913
	Name & Title	Signature	Date
Text Prepared by:	Guy Seddon		March 2017
Graphics Prepared by:	Hayley Baxter		March 2017
Graphics Checked by:	Mark Roughley		March 2017
Project Manager Sign-off:	Tim Bradley		March 2017

Revision No.	Date	Checked	Approved

Pre-Construct Archaeology Ltd
Unit 54
Brockley Cross Business Centre
96 Endwell Road
London
SE4 2PD

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Site Code:	**ETPM17**
Central NGR:	**TQ 68015 78276**
Local Planning Authority:	**Thurrock Council**
Planning Reference:	**13/01163/FUL**
Commissioning Client:	**Thames Industrial Estate Ltd**
Written/Researched by:	**Guy Seddon** **Pre-Construct Archaeology Limited**
Project Manager:	**Tim Bradley (MCIfA)**

Contractor: **Pre-Construct Archaeology Limited**
Unit 54 Brockley Cross Business Centre
96 Endwell Road
Brockley
London SE4 2PD
Tel: **020 7732 3925**
Fax: **020 7732 7896**
E-mail: **tbradley@pre-construct.com**
Web: **www.pre-construct.com**

PCA REPORT NO R12827

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1 ABSTRACT

1.1 This report details the results of an archaeological trial trench evaluation conducted by Pre-Construct Archaeology Ltd on Land at Thames Industrial Park, Princess Margaret Road, East Tilbury, Essex, RM18 8RH, in response to Condition 32(b) and 32(c) of the extant planning permission 13/01163/FUL for the site. The site is located within the Planning Authority of Thurrock and is centred at TQ 68015 78276.

1.2 Following the Written Scheme of Investigation prepared by Pre-Construct Archaeology Ltd (Bradley 2016), an archaeological trial trench evaluation was carried out between 20th and 28th February 2017 and was completed in accordance with the standards specified by the Chartered Institute for Archaeologists and the Standards for Field Archaeology in the East of England.

1.3 Natural strata of Quaternary Head deposits were located in Trenches 2 to 13, falling from 3.65m OD in Trench 2 to 2.73m OD in Trench 5. In Trench 1 the natural deposits comprised of Taplow gravel, falling from 3.63m OD at the north end of the trench to 3.51m OD at the south.

1.4 The natural deposits were cut by ditches of a probable field system, two pits and a single posthole. The presence of finds was scarce, those retrieved dating to the late medieval to early post-medieval period. The features were sealed by a post-medieval sub-soil, which in turn was overlain by either the modern topsoil or tarmac and concrete associated with the 20th century use of the site.

2 INTRODUCTION

2.1 An archaeological trial trench evaluation, commissioned by Thames Industrial Estate Ltd, was undertaken on land at Thames Industrial Park, Princess Margaret Road, East Tilbury, Essex, RM18 8RH (Figure1) between 20th and 28th February 2017.

2.2 The site comprises of former Bata factory buildings constructed in the 1930s, (Grade II Listed). An area of landscaping currently runs along the north-eastern perimeter of the site between the Princess Margaret Road and the Estate, whilst an access road crosses the site to the south of Trafalgar House leading westwards from the site entrance into the Estate. The south and south east of the site comprises of a former computer centre building and associated car park which is now overgrown.

2.3 The site covers approximately 1.7ha in extent and is centred at TQ68015 78276.

2.4 The Written Scheme of Investigation (WSI) prepared by Pre-Construct Archaeology Ltd (PCA) (Bradley 2016), detailed the methodology by which the evaluation was undertaken. The WSI followed the Chartered Institute for Archaeologists guidelines (CIFA, 2014) and Standards for Field Archaeology in the East of England (EAA Occasional Paper 14, 2003). The evaluation was supervised for PCA by Guy Seddon and managed by Tim Bradley for Pre-Construct Archaeology Ltd.

2.5 The site was given a unique site code ETPM17. The complete archive comprising written, drawn and photographic records will be retained by Thames Industrial Estate Limited for eventual deposition at the Bata Museum to facilitate future study and ensure proper preservation of all artefacts.

3 PLANNING BACKGROUND

3.1 In March 2012, the government published the National Planning Policy Framework (NPPF), which replaces national policy relating to heritage and archaeology (Planning Policy Statement 5: Planning for the Historic Environment).

3.2 Section 12 of the NPPF, entitled Conserving and Enhancing the Historic Environment provides guidance for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Section 12 of the NPPF can be summarised as seeking the:

- Delivery of sustainable development
- Understanding the wider social, cultural, economic and environmental benefits brought by the conservation of the historic environment
- Conservation of England's heritage assets in a manner appropriate to their significance, and
- Recognition of the contribution that heritage assets make to our understanding of the past.

3.3 Section 12 of the NPPF recognises that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. Paragraph 128 states that planning decisions should be based on the significance of the heritage asset and that the level of detail supplied by an applicant should be proportionate to the importance of the asset and should be no more than sufficient to review the potential impact of the proposal upon the significance of that asset.

3.4 Heritage Assets are defined in Annex 2 of the NPPF as: a building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. They include designated heritage assets (as defined in the NPPF) and assets identified by the local planning authority during the process of decision-making or through the plan-making process.

3.5 Annex 2 also defines Archaeological Interest as

3.6 A heritage asset which holds or potentially could hold evidence of past human activity worthy of expert investigation at some point. Heritage assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.

3.7 A Designated Heritage Asset comprises a: World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area.

3.8 Significance is defined as: The value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.

3.9 In considering any planning application for development, the planning authority will be mindful of the framework set by government policy, in this instance the NPPF, by current Development Plan Policy and by other material considerations.

3.10 The Localism Act (November 2011), contains provisions which will result in the abolition of regional strategies. However, their abolition will require secondary legislation and until such time as this is introduced they will remain part of the development plan.

3.11 The East of England Plan was revoked in January 2013.

3.12 The Thurrock Local Development Framework (LDF) Core Strategy was adopted in December 2011 and contains the following policy relating to the historic environment:

3.13 **PMD4 - HISTORIC ENVIRONMENT THE COUNCIL WILL ENSURE THAT THE FABRIC AND SETTING OF HERITAGE ASSETS, INCLUDING LISTED BUILDINGS, CONSERVATION AREAS, SCHEDULED ANCIENT MONUMENTS AND OTHER IMPORTANT ARCHEOLOGICAL SITES, AND HISTORIC LANDSCAPE FEATURES ARE APPROPRIATELY PROTECTED AND ENHANCED.**

1. THE COUNCIL WILL ALSO REQUIRE NEW DEVELOPMENT TO TAKE ALL REASONABLE STEPS TO RETAIN AND INCORPORATE NON-STATUTORILY PROTECTED HERITAGE ASSETS CONTRIBUTING TO THE QUALITY OF THURROCK'S BROADER HISTORIC ENVIRONMENT.

2. APPLICATIONS MUST DEMONSTRATE THAT THEY CONTRIBUTE POSITIVELY TO THE SPECIAL QUALITIES AND LOCAL DISTINCTIVENESS OF THURROCK, THROUGH COMPLIANCE WITH LOCAL HERITAGE GUIDANCE INCLUDING: I. CONSERVATION AREA CHARACTER APPRAISALS; II. CONSERVATION AREA MANAGEMENT PROPOSALS; III. OTHER RELEVANT THURROCK-BASED STUDIES, INCLUDING THE LANDSCAPE CAPACITY STUDY (2005), THE THURROCK URBAN CHARACTER STUDY (2007) AND THE THURROCK UNITARY HISTORIC ENVIRONMENT CHARACTERISATION PROJECT (2009). IV. FURTHER LOCAL GUIDANCE AS IT IS DEVELOPED.

3. THE COUNCIL WILL FOLLOW THE APPROACH SET OUT IN 'PPS 5: PLANNING FOR THE HISTORIC ENVIRONMENT' IN THE DETERMINATION OF APPLICATIONS AFFECTING THURROCK'S BUILT OR ARCHAEOLOGICAL HERITAGE ASSETS. THIS WILL INCLUDE CONSIDERATION OF ALTERATIONS, EXTENSIONS OR DEMOLITION OF LISTED BUILDINGS OR THE DEMOLITION OF UNLISTED BUILDINGS WITHIN CONSERVATION AREAS, AND REQUIREMENTS FOR PRE-DETERMINATION ARCHAEOLOGICAL EVALUATIONS AND FOR PRESERVATION OF ARCHAEOLOGY IN SITU OR BY RECORDING.

3.14 No Scheduled Ancient Monuments lie on or close to the site. The site lies within the East Tilbury Conservation Area and two Listed buildings lie within the site; Trafalgar House and Victory House.

3.15 This report presents the results of the archaeological evaluation fieldwork as required under Condition 32(b) and 32(c) of the extant planning permission 13/01163/FUL. The work was undertaken in accordance with an approved WSI (Bradley 2016).

3.16 Above ground heritage matters will be dealt with in a separate report.

4 GEOLOGY AND TOPOGRAPHY

4.1 Geology

4.1.1 The bedrock geology in the area of the site is formed of Palaeogene deposits of Thanet Formation sand.

4.1.2 In terms of superficial geology, the site lies at the boundary between a spur of Quaternary Head deposits (clay silt sand and gravel) and surrounding deposits of Taplow Gravel.

4.2 Topography

4.2.1 The site currently comprises of a former Bata factory buildings constructed in the 1930s (Grade II Listed). An area of landscaping currently runs along the north-eastern perimeter of the site between the Princess Margaret Road and the Estate (this area includes a statue of Thomas Bata), whilst an access road crosses the site to the south of Trafalgar House leading westwards from the site entrance into the Estate. The south and south east of the site comprises of the vacant remains of a former computer centre building and associated car park which is now overgrown.

4.2.2 The site lies approximately 2km north west of the northern bank of the River Thames. The site is approximately level at c4m OD.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 The archaeological background detailed below has been drawn from the Desk-Based Assessment completed for the proposed development area (CgMs 2013).

5.2 **Palaeolithic**

5.2.1 This section of the Lower Thames Valley is one of the archaeologically richest in the country for evidence of the Palaeolithic period. Many finds of flint hand-axes and other flint tools and debris have been recovered from Gravel Terrace deposits bordering the Thames.

5.2.2 A Palaeolithic hand-axe was recovered during gravel extraction approximately 1500m south west of the study site. This was recovered at depth, in a derived context.

5.3 **Mesolithic**

5.3.1 Relatively little evidence exists to indicate the extent to which the East Tilbury area was exploited during the Mesolithic period. During this period the sea level was lower than today and thus, at East Tilbury, the Thames would have been a river rather than a broad tidal estuary.

5.3.2 A series of isolated findspots are recorded in the HER from a catalogue of finds associated with the watching brief on Mucking gas pipeline. Further lithics have also been recovered in the wider vicinity of the site. A macehead was found during field walking approximately 2km north west of the study site.

5.4 **Neolithic**

5.4.1 By the Neolithic period the study site would have lain on a dry gravel terrace overlooking the Thames floodplain. This would have been a favoured location for any settlement and farming activity on fertile, better drained ground.

5.4.2 Despite this, Neolithic finds within 1km of the study site are restricted to two records of lithic material, one about 1km north west of the study site and one approximately 800m south east of the study site. Evidence of Neolithic settlement activity has been recovered further north on higher ground at Mucking and at the Orsett Causewayed Enclosure.

5.5 **Bronze Age**

5.5.1 An extensive archaeological evaluation (Oxford Archaeology 2005) revealed the remains of a Late Bronze Age large ditched enclosure containing a pottery assemblage and domestic waste (Trenches 385-388, 386 and 390). To the south and north of this feature further ditches were revealed identified as associated field boundaries (Trenches 378, 379, 395, 409,412, 413, 416 and 422). A post hole was recorded in Trench 416 and a stake hole in Trench 409.

5.5.2 The 2005 evaluation also found evidence for field systems in the southern part of Tranche 1 and at the southern end of Tranche 2. In Tranche 2 ditches dating from both the late Bronze Age and Roman period were revealed indicating that the features in this area may represent superimposed field systems dating from both periods (N.B. the trench locations can be viewed in Figure 2 of the Desk Based Assessment).

5.5.3 A Bronze Age cemetery was recorded during investigations approximately 750m north east of the study site. The cemetery must be associated with the ring ditches and barrows recorded close by.

5.6 **Iron Age**

5.6.1 The Iron Age period is characterised in this region by settlement stability and the largescale organisation of the landscape, developments that began in the late Bronze Age.

5.6.2 Cropmarks characteristic of Iron Age settlement activity, c250m south east of the application site, are interpreted as a pit, mound, trackway, ditch and a rectilinear enclosure. An Iron Age rectangular enclosure, partially destroyed by gravel digging, was identified approximately 700m south of the application site.

5.7 **Roman**

5.7.1 The Thurrock area continued to be reasonably heavily populated during the Roman period. A Roman road follows the alignment of the East Tilbury Road/Princess Margaret Road which bounds the site to the east and north east. Evidence of Roman roadside activity is therefore possible, particularly in the eastern/north eastern part of the study site.

5.7.2 The extensive evaluation undertaken by Oxford Archaeology in 2005 revealed evidence of a Roman occupation site approximately 1km north west of the study site. Ditches forming part of a rectilinear field system and droveway were revealed with associated pits, postholes and pottery in the northern part of Tranche 1. In Tranche 2 ditches dating from both the late Bronze Age and Roman period were revealed indicating that the features in this area may represent superimposed field systems dating from both periods.

5.7.3 A scatter of Roman pottery was recovered from the surface of a cropmark complex approximately 1km north west of the study site. The cropmarks were interpreted after geophysical surveying as a ditch, rectangular enclosure and ring ditch.

5.7.4 Approximately 1km south west of the study site a Roman cremation cemetery was identified during gravel extraction.

5.8 **Saxon/Early Medieval, Medieval and Post-Medieval**

5.8.1 In c 628 Tilbury is recorded as being the location of Bishop Cedda's Palace. The site of the Palace is thought to be the series of earthworks, a Scheduled Ancient Monument, near St James Church at West Tilbury approximately 2km south west of the study site.

5.8.2 Archaeological investigations at Mucking, north of the application site, identified a large Saxon settlement comprising 53 timber buildings and 203 Grubenhauser. In addition to settlement, two cemeteries were excavated containing a large number of inhumations and cremations.

5.8.3 There is no evidence of Anglo Saxon activity within 1km of the study site, although it is likely that the Roman road bounding the study site to the north east was still in use during the Saxon period. Settlement and or religious activity is postulated for an area adjacent to the road alignment close to Coal House Fort, approximately 1500m south east of the study site, where 20 Saxon sceattas were discovered.

5.8.4 Away from known areas of Saxon settlement most of the landscape would have remained in agriculture. The study site lies approximately 1500m north west of the possible settlement close to Coal House Fort and it is likely that by the Saxon period it lay within agricultural land. It is therefore considered that the archaeological potential of the study site for the Anglo-Saxon period is low.

5.8.5 Medieval occupation in the area of East Tilbury village developed as a linear settlement along the road north from St Catherine's church, which dates from the 12th century. Away from known areas of Medieval settlement most of the landscape would have remained in agriculture. The potential of the study site for the Medieval period is therefore considered to be low.

5.8.6 During the Post-Medieval period the study site continued to occupy agricultural land bounded to the north east and east by the former Roman road. The earliest map of the area is Chapman and Andre which shows the study site to the north west of the settlement at East Tilbury and to the south east of the settlement at Mucking, and immediately west of St Cleres farmstead.

5.9 **Modern**

5.9.1 The East Tilbury tithe map of 1846 shows that most of the study site continued to occupy agricultural land west of St Cleres farmstead. A small building occupied the northern most part of the site.

5.9.2 There was subsequently no change to the study site until 1933 when the Bata Shoe Factory and Estate was constructed. The Bata Estate was built on 670 acres of former farmland, it was a planned settlement centred upon an industrial concern, in this case the Bata Shoe Company, and provided for the housing and social needs of its workforce including houses shops and leisure facilities.

5.9.3 By the mid-1930s the Company had established its own building department which embarked upon an ambitious factory building programme which placed emphasis upon cheap, standardised and rapid form of construction.

5.9.4 The first factory buildings were constructed in 1933 and included Building 12 (former rubber factory) which is now Grade II Listed and lies to the north of the application site. Trafalgar House/Building 13 is also Grade II Listed and was built as a leather factory in 1934 and lies to the north of the application site. Between 1936 and 1938 further buildings were constructed including a second leather and rubber factory (Victory House (Building 24) and Nelson House (Building 34)). Both buildings are Listed and one, Victory House, lies within the western part of the application site.

5.9.5 Further expansion of the Bata Estate took place after the and the Ordnance Survey map of 1961 shows four small buildings had been constructed by this date in the south of the site.

5.9.6 The remainder of the site comprised Victory House, access road and landscaping. The southern-most part of the site continued to lie within part of a field by this date.

6 ARCHAEOLOGICAL METHODOLOGY AND OBJECTIVES

6.1 Aims and objectives

6.1.1 The primary aims of the evaluation were to identify, excavate and record the location, extent, date, character and state of preservation of any archaeological remains on the site which are likely to be threatened by the proposed development, and to identify their significance in a local, regional and national context, as appropriate, with reference to the East Anglian regional research agendas:

- Research and Archaeology: A Framework for the Eastern Counties: 1. Resource Assessment (Glazebrook 1997)
- Research and Archaeology: A Framework for the Eastern Counties: 2. Research Agenda and Strategy (Brown and Glazebrook 2000)
- Regional Research Framework for the Eastern Region (Medlycott and Brown 2008)
- Research and Archaeology Revisited: A Revised Framework for the East of England (Medlycott 2011)

6.1.2 The evaluation also aimed to:

- Provide sufficient information to enable the formulation of a suitable management/investigation strategy for the site's heritage assets, in light of the current redevelopment proposals.
- Provide a predictive model of the archaeological remains present and likely to be present on the site and include an appraisal of their significance.

6.2 Methodology

6.2.1 All aspects of the investigation were conducted in accordance with the Chartered Institute for Archaeologists' Code of Conduct, the Standard and Guidance for Archaeological Excavation (CIfA 2014), and Standards for Field Archaeology in the East of England (EAA Occasional Paper 14, 2003).

6.2.2 In total 13 trenches were excavated for the evaluation using a 360° tracked machine. Nine of the trenches measured 30m x 1.8m whilst the remaining four measured 15m x 1.8m. (Figure 2), targeting the areas to be impacted by the proposed development. All the trenches were single bucket width (1.8m).

6.2.3 Within each trench the topsoil, subsoil or made ground deposits were machine stripped by the mechanical excavator with toothless ditching bucket. Machine stripping was only undertaken to the top of the archaeological horizon or the geological substrate, and was monitored by an experience archaeological supervisor.

6.2.4 Exposed archaeological features and deposits were cleaned as necessary to define them using hand tools.

6.2.5 Metal-detecting was carried out on any stripped deposits throughout the monitoring process and all archaeological features and spoil heaps were surveyed by metal-detector as they were encountered.

6.2.6 Limits of excavation of all trenches, pre-excavation and post-excavation plans of archaeological features and heights above Ordnance Datum (m OD) were recorded using a Leica 1200 Global positioning System (GPS) rover unit with RTK differential correction, giving three-dimensional accuracy of 20mm or better.

6.2.7 All features were investigated and recorded in order to properly understand the date and nature of the archaeological remains on the site and to recover sufficient finds assemblages to assess the chronological development and socio-economic character of the site over time.

6.2.8 Drawn records were in the form of survey plans, drawn plans and section drawings of all archaeological features were at an appropriate scale (1:10, 1:20, 1:50) while all individual deposits and cuts were recorded as written records on PCA pro-forma context sheets.

6.2.9 High-resolution digital photographs were taken at all stages of the monitoring process. Digital photographs were taken of all archaeological features and deposits by the supervisor

6.2.10 Artefacts and ecofacts were collected by hand and retained, receiving appropriate care prior to removal from site (CIfA 2014; Walker 1990; Watkinson 1981).

6.2.11 The site was given a unique site code ETPM17. The complete archive comprising written, drawn and photographic records will be retained by Thames Industrial Estate Limited for eventual deposition at the Bata Museum to facilitate future study and ensure proper preservation of all artefacts.

7 THE ARCHAEOLOGICAL SEQUENCE

7.1 The earliest deposits observed during the archaeological investigation consisted of the natural deposits, comprising Taplow Gravel in Trench 1 and Quaternary Head deposits (clay silt sand and gravel) in Trenches 2 to 13.

7.2 The gravels fell from a height of 3.63mOD at the north end of the trench to 3.51mOD at the southern end.

7.3 The highest level recorded for the Quaternary Head deposits was in Trench 2 at 3.65mOD, falling to 2.73mOD in Trench 5.

7.4 Cut into the natural deposits were a series of mainly NE-SW and NW-SE ditches, two pits and a posthole.

7.5 The ditches were similar to each other in form, having steep, slightly concave sides and flat bases. Details of the ditches can be seen in the table below.

Context Number	Trench Number	Same as	Alignment	Length (m)	Width (m)	Depth (m)	Max Level (mOD)	Min Level (mOD)
5	12	7	NE-SW	5.12	0.71	0.17	3.17	3.01
7	12	5	NW-SE	1.95	0.81	0.14	3.02	2.86
9	12	38	NE-SW	1.8	1.02	0.11	3.07	2.91
20	8	*	NW-SE	1.98	1.36	0.42	3.34	2.91
23	7	31	NE-SW	1.89	0.65	0.1	3.32	3.22
31	10	23	NE-SW	1.8	0.87	0.19	3.38	3.18
36	13	*	NE-SW	1.8	0.56	0.08	3.21	3.11
38	13	9	NE-SW	1.8	0.35	0.1	3.02	2.91
46	3	*	NE-SW	2.33	1.05	0.24	3.23	2.99
48	1	*	NW-SE	4.43	0.25	0.07	3.61	3.44
55	2	?	E-W	2.24	0.8	0.29	3.27	2.94
58	2	?	NE-SW	1.8	0.84	0.26	3.12	2.77
60	2	?	NW-SE	7.68	0.6	0.23	2.91	2.67

7.6 It is probable that two ditches located in Trench 2 are the same as those found in Trench 12, however due to the constraints of the evaluation trenching it was not possible to be certain which was which.

7.7 The fills of the ditches were all very similar, comprising firmly compacted, mid-dark brown sandy silt, and it is probable that at least most them are contemporary, forming an integrated field system.

7.8 Dating evidence was recovered from the fills of ditches [46], [48], [53], and [60]. Sherds of Mill Green pottery dating to between 1270 and 1400 and post-medieval peg tile with a date range of 1480 – 1900 were recovered from both [54], the fill of ditch [55] and [59], the fill of ditch [60], located in Trench 2. Given the good condition of the medieval pottery it is probable that these features date to the earlier part of this date range, placing their use within the late-medieval period, and disuse and backfilling in the early post-medieval period.

7.9 A sherd of heavily abraded Roman greyware was recorded in [47], the fill of ditch [48], located in Trench 1. The poorly preserved condition of this sherd strongly suggests that it was residual in nature and can be discounted as dating evidence.

7.10 A scythe blade, (small find <1>) was recovered from context [45], the fill of ditch [46], recorded in Trench 3. It is possible that this dates to the medieval period.

7.11 Pit [25] in Trench 7 was sub-circular in plan and had concave sides and a slightly concave base with a diameter of *c.* 0.80m and a depth of 0.17m. It contained a single fill, comprising very firmly compacted, dark reddish-brown silty clay. No finds were recovered.

7.12 Pit [44], located in Trench 3, was oval in plan, with steep sides and a flat base. It contained two fills, [42] and [43]. The primary fill of the pit [43] was firmly compacted, light grey silty sand with occasional flecks of charcoal, 0.19m thick. The secondary fill [42] comprised firmly compacted, dark grey silty sand containing frequent charcoal flecks and occasional small fragments of animal bone and burnt flint. The fact that the earth around the feature was not scorched indicated that the fill was not likely represent burning in situ, but was brought in from somewhere else. No dating evidence was recovered from the pit.

7.13 A single posthole, [62] was recorded in the evaluation, located in Trench 2. It was square in plan, with steep sides and a slightly concaved base and measured 0.40m by 0.40m with a depth of 0.30m and contained a single fill [61] which comprised firmly compacted, mottled light and mid grey, clayey sand. No finds were recovered.

7.14 Sealing the features, in all the trenches was a layer of subsoil. It comprised firmly compacted, light – mid greyish brown, sandy silt and is probably a post-medieval plough soil. Although the subsoil is probably a single layer continuous across the entire site, it has been allocated different context numbers in within each trench, the descriptions of which can be seen in the table below.

Trench Number	Context Number	Thickness (m)	Max Level (m OD)	Min Level (m OD)
1	50	0.21	4.01	4.00
2	53	0.54	3.57	3.55
3	40	0.32	3.57	3.48
4	64	0.29	3.58	3.56
5	67	0.35	3.74	3.52
6	13	0.32	3.77	3.70
7	21	0.30	3.74	3.70
8	17	0.37	3.88	3.84
9	69	0.47	3.62	3.53
10	28	0.28	3.66	3.58
11	72	0.26	3.52	3.50
12	2	0.34	3.59	3.47
13	33	0.28	3.38	3.33

7.15 As can be seen from the table, the subsoil had a maximum thickness of 0.54m in Trench 2 and a minimum thickness of 0.21 in Trench 1. It fell from a maximum height of 4.01m OD in Trench 1 to a minimum of 3.33m OD in Trench 13.

7.16 Overlying the subsoil in all trenches apart from Trench 2 was a layer of modern topsoil. In the area of Trench 2 the topsoil had been removed and replaced by tarmac and a bedding layer of crushed rubble hardcore.

8 ARCHAEOLOGICAL PHASE DISCUSSION

8.1 Phase 1: Natural Deposits

8.1.1 The Taplow Gravel deposits were only observed in Trench 1, located towards the north of the site. It had a maximum height of 3.63m OD at the northern end of the trench, falling to a minimum height of 3.51m OD at the southern end.

8.1.2 The Quaternary Head deposits were located in Trenches 2 – 13 and fell from a maximum height of 3.65m OD in Trench 2 to a minimum height of 2.73m OD in Trench 5.

8.2 Phase 2: Medieval

8.2.1 This phase represents the earliest human occupation of the site recorded during the evaluation. The ditches that dominate this phase are probably contemporary with each other, forming a series of field boundaries, with alignments either parallel or perpendicular to each other.

8.2.2 Accurate phasing of the features has been restricted by the scarcity of dating material from across the site, with the majority of the finds being recovered from ditches located in Trench 2, [55] and [60]. This material took the form of well-preserved fragments of medieval pottery, (Mill Green), dated to 1270-1400, and a fragment of post-medieval peg tile within each feature. The ditches have therefore tentatively been place in the late medieval period, with backfilling events in the early post-medieval period, probably in order to enlarge the field sizes.

8.2.3 It is possible that posthole [62] could be the remnant of fencing associated with the field system, and so has also been placed in this phase.

8.2.4 No dating evidence was retrieved from pits [25] and [44], however due to the dating of the ditches, and their place within the stratigraphic sequence, they have been placed in the medieval phase, and could represent casual pitting/rubbish disposal.

8.3 Phase 3: Post-Medieval

8.3.1 This phase is represented by the layer of subsoil which was recorded in all trenches across the site. The subsoil was humic in nature and is probably a post-medieval plough soil, reflecting the arable farming that took place upon the site throughout this period.

8.3.2 It is probable that the ploughing of the site during this period partially horizontally truncated the natural deposits and archaeological horizon, explaining why the features were all so shallow.

8.4 Phase 4: Modern

8.4.1 The subsoil was sealed by a layer of modern topsoil and tarmac, related to the landscaping and use of the site as an industrial park in the 20th Century.

9 ORIGINAL AND REVISED RESEARCH OBJECTIVES

9.1 Primary Objectives

9.1.1 The Written Scheme of Investigation (Bradley 2016) prepared prior to the commencement of archaeological work at Thames Industrial Park highlighted a set of specific objectives to be addressed by the investigation.

9.2 **The broad aims of the evaluation were to identify, excavate and record the location, extent, date, character and state of preservation of any archaeological remains on the site which are likely to be threatened by the proposed development, and to identify their significance in a local, regional and national context, as appropriate, with reference to the East Anglian regional research agendas:**

- **Research and Archaeology: A Framework for the Eastern Counties: 1. Resource Assessment (Glazebrook 1997)**
- **Research and Archaeology: A Framework for the Eastern Counties: 2. Research Agenda and Strategy (Brown and Glazebrook 2000)**
- **Regional Research Framework for the Eastern Region (Medlycott and Brown 2008)**
- **Research and Archaeology Revisited: A Revised Framework for the East of England (Medlycott 2011)**

9.2.1 The archaeological remains that were identified during the trial trench evaluation were excavated, located and fully recorded as appropriate. The evidence suggests that the study area was probably located on the periphery of East Tilbury and utilised throughout the medieval and post-medieval periods for horticultural/agricultural activity.

9.2.2 The backfilling of the probable medieval field systems creating larger fields during the post-medieval period was common practice across the country and is evidence of the changes in agricultural practice that were taking place at this time.

9.3 **The evaluation will provide a predictive model of the archaeological remains present and likely to be present on the site and include an appraisal of their significance.**

9.3.1 From the evidence gained during the trial trench evaluation it is probable that the field systems that were observed continue over the rest of the site. These are of local archaeological significance.

10 CONCLUSIONS

10.1 The results of the evaluation show that the processes of intensive farming across the area of the site, from the post-medieval period into the early 20th century, has had a detrimental effect on the archaeological horizon, horizontally truncating it through ploughing.

10.2 The effect of this ploughing is that only the bases of larger and deeper features have been left intact. However, the evidence recovered from the evaluation shows that the site was on the periphery of East Tilbury, well outside the focus of urbanisation and was utilised for horticultural/agricultural purposes throughout the medieval and post-medieval periods.

11 ACKNOWLEDGEMENTS

11.1 Pre-Construct Archaeology Limited would like to thank Thames Industrial Estates Limited for commissioning the archaeological work.

11.2 Thanks also to Richard Havis, Principle Historic Environment Consultant at Essex County Council for monitoring the site on behalf of Thurrock Council.

11.3 The author would also like to thank: Tim Bradley for project managing and editing this report; Hayley Baxter for the illustrations, Chris Jarrett for the pottery assessment, Amparo Valcarcel for the building material assessment; Karen Deighton for the animal bone assessment; Richard Archer for the survey and Bruce Ferguson, Fergus Hooper, Wayne Perkins and Lorna Webb, for their work on site.

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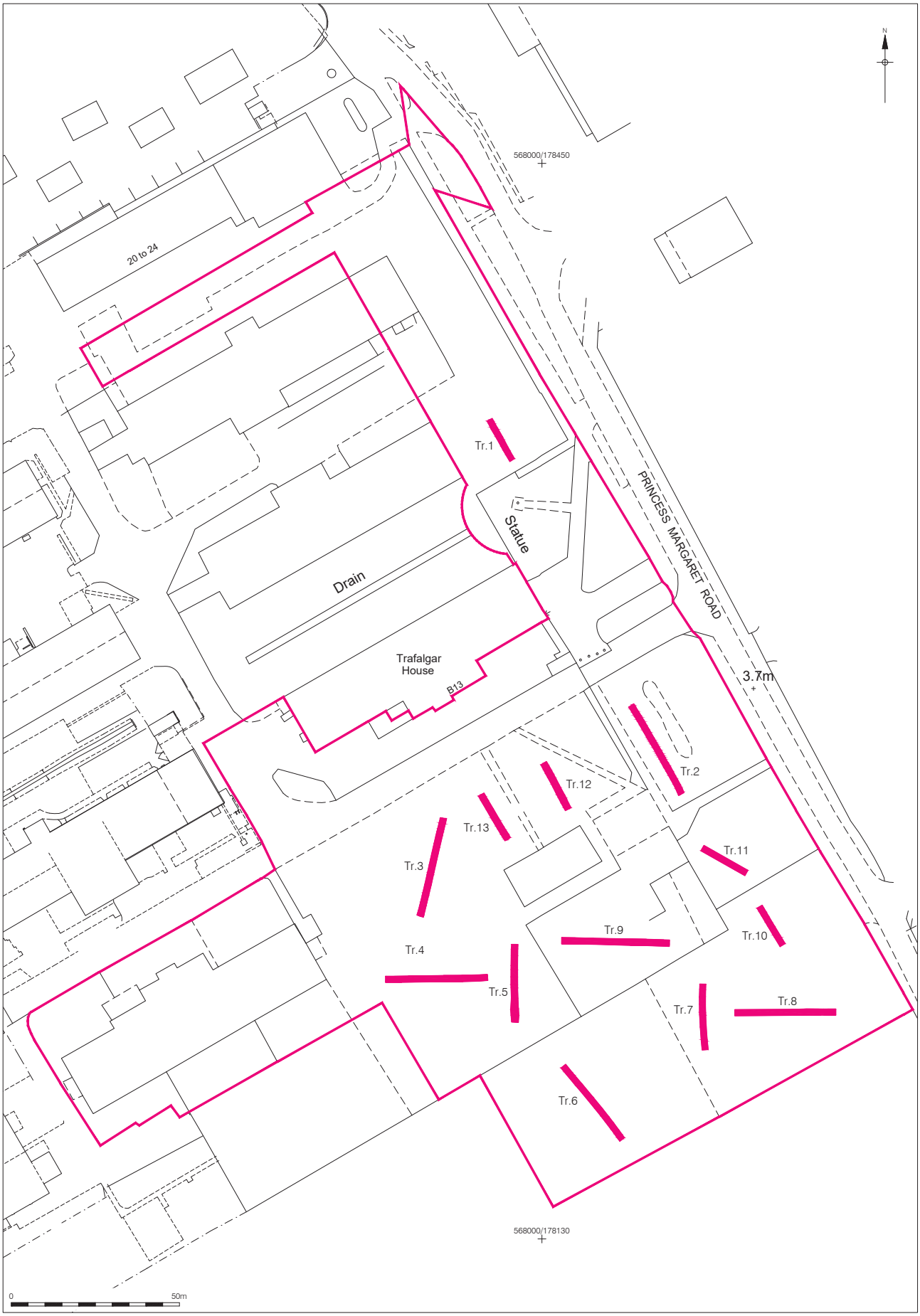
10/03/17 MR

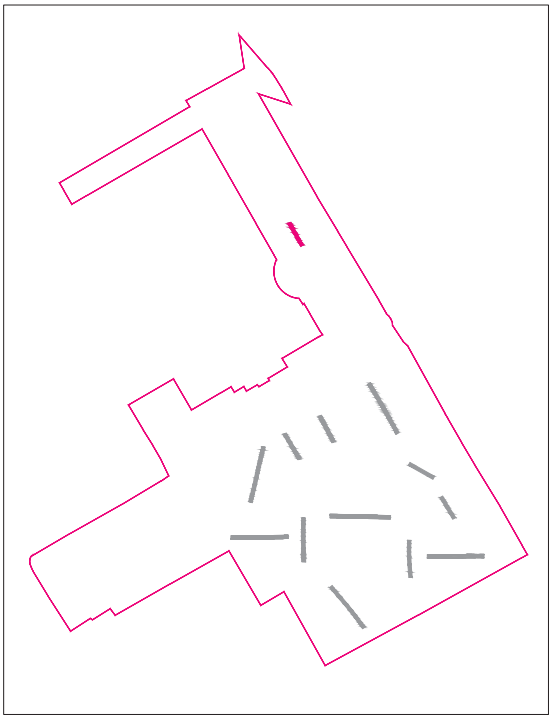
Figure 1
Site Location
1:2,000,000; 1:250,000; 1:25,000 at A4

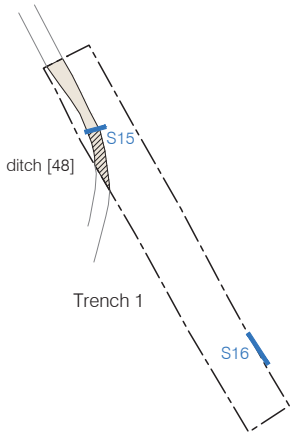


Topographical Survey supplied by the client

15/03/17 HB

Figure 2
Trench Location
1:1,600 at A4





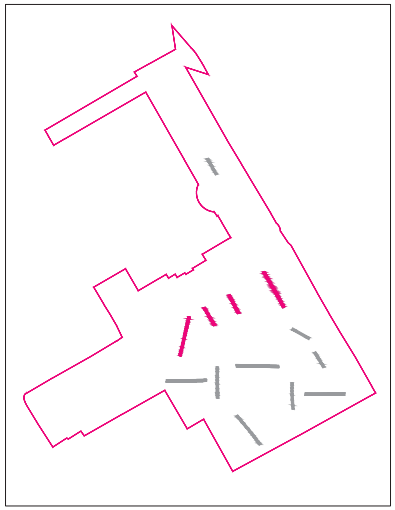
Archaeological feature

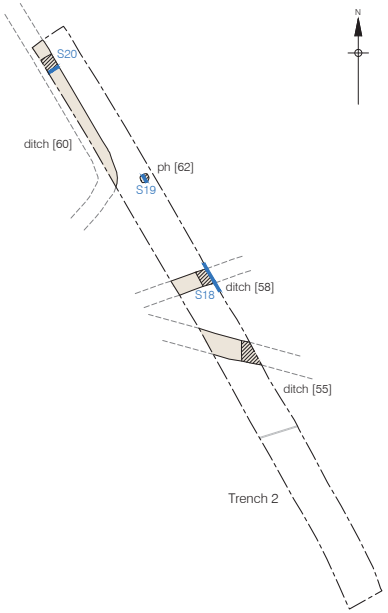
Excavated slot

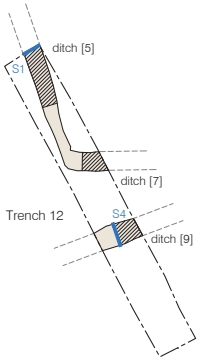
0 10m

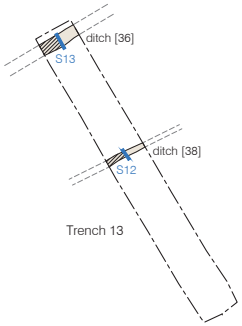
14/03/17 HB

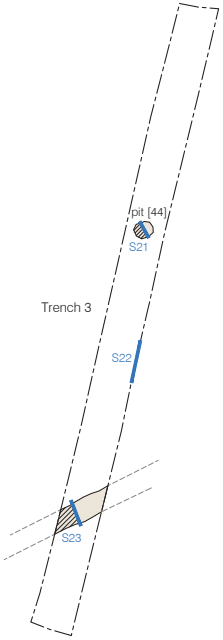
Figure 3
Plan of Trench 1
1:250 at A4











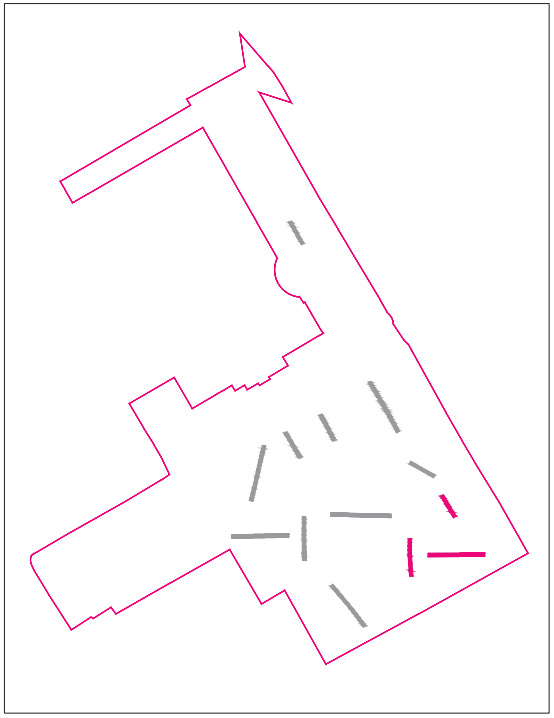
Archaeological feature

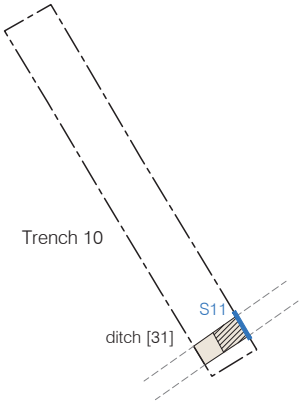
Excavated slot

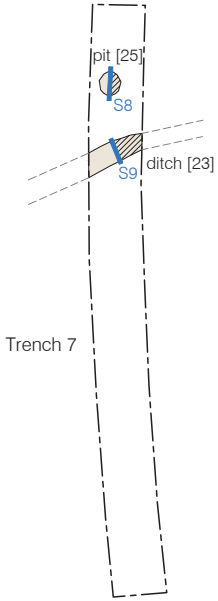
0 10m

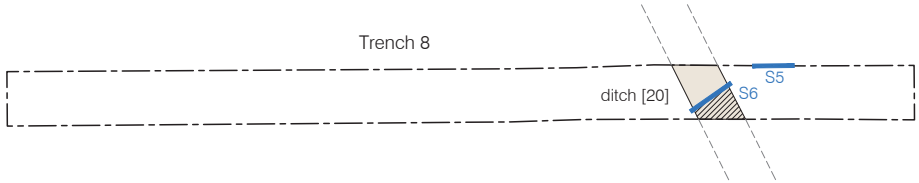
14/03/17 HB

Figure 4
Plan of Trenches 2, 3, 12 & 13
1:250 at A3









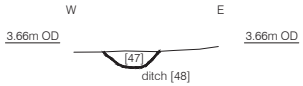
Archaeological feature

Excavated slot

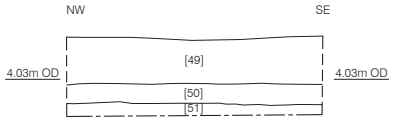
0 10m

14/03/17 HB

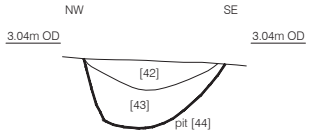
Figure 5
Plan of Trenches 7, 8 & 10
1:250 at A4



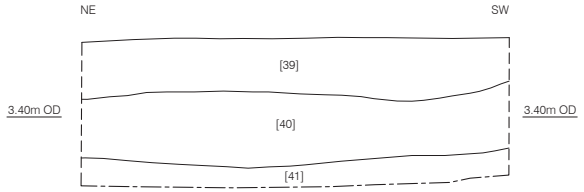
Section 15
South facing
Trench 1



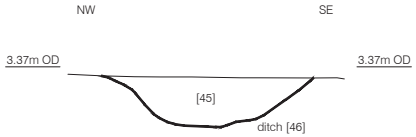
Section 16
South West facing
Trench 1



Section 21
South West facing
Trench 3



Section 22
North West facing
Trench 3



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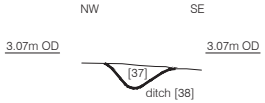
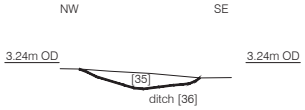
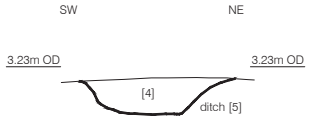
Trench 3



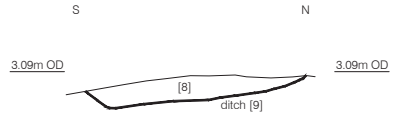
Section 12
South West facing
Trench 13



Section 13
South West facing
Trench 13

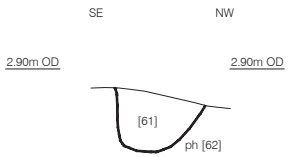


Section 1
South East facing
Trench 12

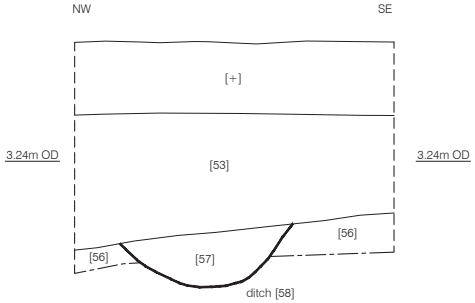


Section 4
East facing
Trench 12

Section 20
North West facing
Trench 2



Section 19
North East facing
Trench 2

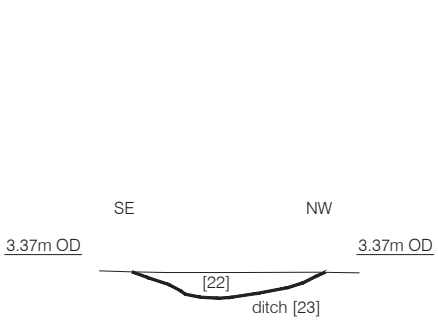


Section 18
South West facing
Trench 2

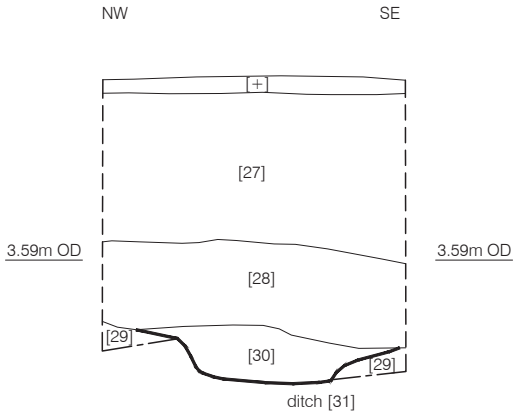
0 1m

14/03/17 HB

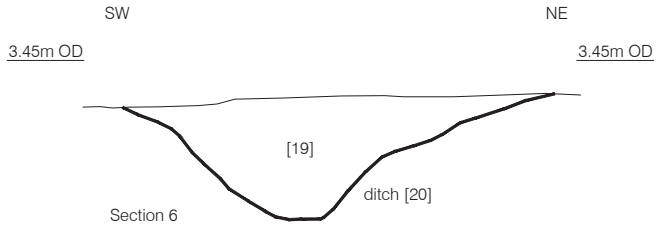
Figure 6
Sections from Trenches 1, 2, 3, 12 & 13
1:25 at A3



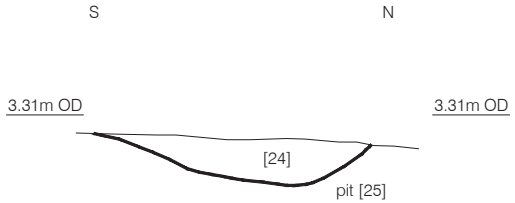
Section 9
North East facing
Trench 7



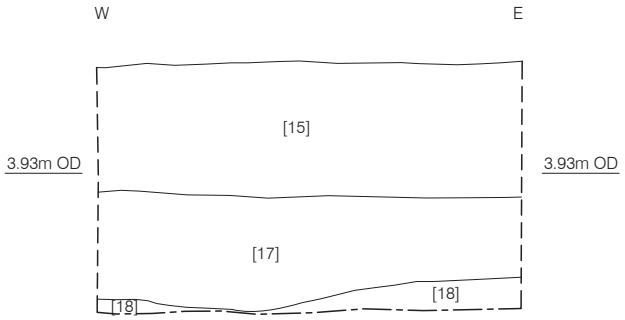
Section 11
South West facing
Trench 10



Section 6
South East facing
Trench 8



Section 8
East facing
Trench 7



Section 5
South facing
Trench 8

0 1m

14/03/17 HB

Figure 7
Sections from Trenches 7, 8 & 10
1:25 at A4

PLATES:

Plate 1: Ditch [60], Tr2 - Looking South

Plate 2: Posthole [62], Tr2 - Looking West

Plate 3: Ditch [46], Tr3 - Looking West

Plate 4: Pit [44], Tr3 - Looking North-East

Plate 5: Pit [25], Tr7 - Looking West

Plate 6: Ditch [23], Tr7 - Looking West

Plate 7: Ditch [5], Tr 12 - Looking North

Plate 8: Ditch [5], Tr 12 - Looking West

APPENDIX 1: CONTEXT INDEX

Context	Context Type	Fill of	Trench	CTX_Interpretation	Phase
1	Layer		12	Topsoil.	ETPM17-PH4
2	Layer		12	Subsoil.	ETPM17-PH3
3	Natural		12	Natural Deposits.	ETPM17-PH1
4	Fill	5	12	Fill of ditch [5].	ETPM17-PH2
5	Cut		12	Ditch cut.	ETPM17-PH2
6	Fill	7	12	Fill of ditch [7]. For Length see [4]	ETPM17-PH2
7	Cut		12	Ditch cut. For length see [5]	ETPM17-PH2
8	Fill	9	12	Fill of ditch [9].	ETPM17-PH2
9	Cut		12	Ditch cut.	ETPM17-PH2
10	Fill		6	Fill of probable tree-throw [11].	ETPM17-PH2
11	Cut		6	Cut of probable tree-throw.	ETPM17-PH2
12	Layer		6	Topsoil	ETPM17-PH4
13	Layer		6	Subsoil.	ETPM17-PH3
14	Natural		6	Natural deposits.	ETPM17-PH1
15	Layer		8	Topsoil.	ETPM17-PH4
16	Void			VOID - double numbered context!	
17	Layer		8	Subsoil.	ETPM17-PH3
18	Natural		8	Natural deposits.	ETPM17-PH1
19	Fill	20	8	Fill of ditch [20].	
20	Cut		8	Ditch cut.	ETPM17-PH2
21	Layer		7	Subsoil.	ETPM17-PH3
22	Fill	23	7	Fill of ditch [23].	ETPM17-PH2
23	Cut		7	Ditch cut.	ETPM17-PH2
24	Fill	25	7	Fill of pit [25].	ETPM17-PH2
25	Cut		7	Pit cut.	ETPM17-PH2
26	Natural		7	Natural deposits.	ETPM17-PH1
27	Layer		10	Topsoil.	ETPM17-PH4
28	Layer		10	Subsoil.	ETPM17-PH3
29	Natural		10	Natural deposits.	ETPM17-PH1
30	Fill	31	10	Fill of ditch [31].	ETPM17-PH2
31	Cut		10	Ditch cut.	ETPM17-PH2
32	Layer		13	Topsoil.	ETPM17-PH4
33	Layer			Subsoil.	ETPM17-PH3
34	Natural		13	Natural deposits.	ETPM17-PH1
35	Fill	36	13	Fill of ditch [36].	ETPM17-PH2
36	Cut		13	Ditch cut.	ETPM17-PH2
37	Fill	38	13	Fill of ditch [38].	ETPM17-PH2
38	Cut		13	Ditch cut.	ETPM17-PH2
39	Layer		3	Topsoil.	ETPM17-PH4
40	Layer		3	Subsoil.	ETPM17-PH3
41	Natural		3	Natural deposits.	ETPM17-PH1
42	Fill	44	3	Secondary fill of pit [44].	ETPM17-PH2
43	Fill	44	3	Primary fillof pit [44].	ETPM17-PH2
44	Cut		3	Pit cut.	ETPM17-PH2
45	Fill	46	3	Fill of ditch [46].	ETPM17-PH2
46	Cut		3	Ditch cut.	ETPM17-PH2
47	Fill	48	1	Fill of ditch [48].	ETPM17-PH2
48	Cut		1	Ditch cut.	ETPM17-PH2
49	Layer		1	Toopsoil.	ETPM17-PH4
50	Layer		1	Subsoil.	ETPM17-PH3
51	Natural		1	Natural deposits.	ETPM17-PH1
52	Void			Tarmac and 20thC made ground.	
53	Layer		2	Subsoil.	ETPM17-PH3
54	Fill	55	2	Fill of ditch [55].	ETPM17-PH2
55	Cut		2	Ditch cut.	ETPM17-PH2
56	Layer		2	Natural deposits.	ETPM17-PH1
57	Fill	58	2	Fill of ditch [2].	ETPM17-PH2
58	Cut		2	Ditch cut.	ETPM17-PH2
59	Fill	60	2	Fill of ditch [60].	ETPM17-PH2
60	Cut		2	Ditch cut.	ETPM17-PH2
61	Fill	62	2	Fill of posthole [62].	ETPM17-PH2
62	Cut		2	Posthole cut.	ETPM17-PH2
63	Layer		4	Topsoil.	ETPM17-PH4
64	Layer		4	Subsoil.	ETPM17-PH3
65	Natural		4	Natural deposits.	ETPM17-PH1
66	Layer		5	Topsoil.	ETPM17-PH4
67	Layer		5	Subsoil.	ETPM17-PH3
68	Natural		5	Natural deposits.	ETPM17-PH1
69	Layer		9	Subsoil.	ETPM17-PH3
70	Natural		9	Natural deposits.	ETPM17-PH1
71	Layer		11	Topsoil.	ETPM17-PH4
72	Layer		11	Subsoil.	ETPM17-PH3
73	Natural		11	Natural deposits.	ETPM17-PH1

APPENDIX 2: POTTERY ASSESSMENT

Chris Jarrett

Introduction

A small assemblage of pottery (five sherds/4 estimated number of vessels/71g) dating to the Roman and medieval periods was recovered from the archaeological work and found as small groups in three contexts. The pottery is in a good condition and was therefore more likely to have been deposited soon after breakage. The classification of the Essex Roman fabrics follows that of Symonds and Wade (1999), while the Essex post-Roman pottery codes are according to Cunningham (1985) and Cotter (2000).

The pottery types and their distribution

The distribution of the pottery types are shown in Table 1. The Roman fine greyware could have come from a number of sources, which include Essex and London (Symonds and Wade 1999, 434) while the medieval pottery all appears to be derived from the Mill Green industry (Cotter 2000, 180–2) and includes sherds of a cooking pot and a jug

Context	Period	Code	Expansion	Form/ description	Date range	SC	ENV	Wt (g)	Spot date
47	Roman	GP	Fine grey ware	-	50–120	1	1	7	50–120
54	Medieval	35	Mill Green ware	Jug (decorated with two converging vertical white slip bands and green mottled clear glaze; body sherd)	1270–1350	2	2	31	1270–1350
59	Medieval	20C	Mill Green coarse ware	Cooking pot	1270–1400	2	1	33	1270–14000

Table 1: Pottery by context. SC: sherd count, ENV: estimated number of vessels, Wt(g): weight.

Significance, potential and recommendations for further work

The pottery is of little significance as it occurs in such a small quantity. The pottery has the potential to date the contexts it was found in and to demonstrate Roman activity in the vicinity of the site and late 13th-14th century activity on the study area. There are no recommendations for further work on the material.

References

Cotter, J. P., 2000. *Post-Roman pottery from excavations in Colchester, 1971 – 85*, Colchester Archaeological Report, **7**. English Heritage and Colchester Archaeological Trust.

Cunningham, C. M., 1985. 'A typology for post-Roman pottery in Essex', in Cunningham, C. M., and Drury, P. J., *Post-Medieval sites and their pottery: Moulsham Street, Chelmsford*'. Chelmsford Archaeological Trust, Report **5**, Council for British Archaeology, **54**, 1–16.

Symonds, S. and Wade, S. 1999, *Roman pottery from excavations in Colchester, 1971-86, Colchester Archaeological Report* **10**. Colchester Archaeological Trust.

APPENDIX 3: BUILDING MATERIAL ASSESSMENT

Amparo Valcarcel

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
54	2276*type*	Post medieval unglazed peg tile	1	1480	1900	1480	1900	1480-1900	No mortar
59	2276*type*	Post medieval unglazed peg tile	1	1480	1900	1480	1900	1480-1900	No mortar

Review

The ceramic building material recovered (2 fragments, 114 g.) consists of post medieval unglazed peg tiles. No further work recommended.

APPENDIX 4: ANIMAL BONE ASSESSMENT

Karen Deighton

A total of six fragments of animal bone were recovered from 2 medieval ditch contexts in Trenches 12 and 13. These were identified as follows:

Context 4

Cattle pelvis fragment (acetabulum), distal humerus and shaft, maxilla fragment and proximal femur shaft. The epiphysis of the humerus was unfused which indicates a juvenile animal.

Context 35

Sheep/goat proximal metacarpal.

All bones exhibited evidence for butchery consistent with chopping.

APPENDIX 5: OASIS FORM

OASIS ID: preconst1-278749

Project details

Project name	Thames Industrial Park, Princess Margaret Road, East Tilbury, Essex, RM18 8RH, An Archaeological Trial Trench Evaluation
Short description of the project	An archaeological trial trench evaluation was conducted by Pre-Construct Archaeology Ltd on Land at Thames Industrial Park, Princess Margaret Road, East Tilbury, Essex, RM18 8RH, between 20th and 28th February 2017. Ditches of a probable field system, two pits and a single posthole, all of probable medieval date. The features were sealed by a post-medieval sub-soil, which in turn was overlain by either the modern topsoil or tarmac and concrete associated with the 20th Century use of the site.
Project dates	Start: 20-02-2017 End: 28-02-2017
Previous/future work	No / Not known
Any associated project reference codes	ETPM17 - Sitecode
Type of project	Field evaluation
Site status	Conservation Area
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	DITCHES Medieval
Monument type	PITS Medieval
Monument type	POSTHOLE Medieval
Significant Finds	POTTERY Medieval
Significant Finds	CERAMIC BUILDING MATERIAL Post Medieval
Significant Finds	ANIMAL BONES Medieval
Methods & techniques	"Sample Trenches"
Development type	Rural residential
Prompt	Planning condition
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	ESSEX THURROCK EAST TILBURY Thames Industrial Estate, Princess Margaret Road

Postcode	RM18 8RH
Study area	1.7 Hectares
Site coordinates	TQ 68015 78276 51.477927622531 0.419748882287 51 28 40 N 000 25 11 E Point
Height OD / Depth	Min: 2.73m Max: 3.65m

Project creators

Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	Thames Industrial Estate Limited
Project design originator	Tim Bradley
Project director/manager	Tim Bradley
Project supervisor	Guy Seddon
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Thames Industrial Estate Limited

Project archives

Physical Archive recipient	Bata Museum
Physical Contents	"Animal Bones","Ceramics"
Digital Archive recipient	Bata Museum
Digital Contents	"Animal Bones","Ceramics","Stratigraphic","Survey"
Digital Media available	"Database","Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive recipient	Bata Museum
Paper Contents	"Animal Bones","Ceramics","Stratigraphic","Survey"
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Project

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P C A

PCA SOUTH
UNIT 54
BROCKLEY CROSS BUSINESS CENTRE
96 ENDWELL ROAD
BROCKLEY
LONDON SE4 2PD
TEL: 020 7732 3925 / 020 7639 9091
FAX: 020 7639 9588
EMAIL: info@pre-construct.com

PCA NORTH
UNIT 19A
TURSDALE BUSINESS PARK
DURHAM DH6 5PG
TEL: 0191 377 1111
FAX: 0191 377 0101
EMAIL: info.north@pre-construct.com

PCA CENTRAL
THE GRANARY, RECTORY FARM
BREWERY ROAD, PAMPISFORD
CAMBRIDGESHIRE CB22 3EN
TEL: 01223 845 522
FAX: 01223 845 522
EMAIL: info.central@pre-construct.com

PCA WEST
BLOCK 4
CHILCOMB HOUSE
CHILCOMB LANE
WINCHESTER
HAMPSHIRE SO23 8RB
TEL: 01962 849 549
EMAIL: info.west@pre-construct.com

PCA MIDLANDS
17-19 KETTERING RD
LITTLE BOWDEN
MARKET HARBOROUGH
LEICESTERSHIRE LE16 8AN
TEL: 01858 468 333
EMAIL: info.midlands@pre-construct.com