Braintree PZ Supply
Demand Balance:
Braintree to
Cressing, Essex

Archeological Monitoring

Client: Anglian Water

OA East Report No: 1788
OASIS No: oxfordar3-218668
NGR: TL7803 2245 - TL7953 2168

July 2016
Braintree PZ Supply Demand Balance: Braintree to Cressing, Essex.

Archaeological Monitoring

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Report Date: July 2016
Report Number: 1788
Site Name: Braintree PZ: Braintree to Cressing
HER Event No: CRSAW14
Date of Works: October 2014 to March 2015
Client Name: Anglian Water
Client Ref: -
Planning Ref: 14681
Grid Ref: TL7803 2245 - TL7953 2168
Site Code: CRSAW14
Finance Code: XEXBPZ14
Receiving Body: Colchester and Ipswich Museum Service
Accession No: CRSAW14

Prepared by: Gareth Rees
Position: Project Officer
Date: 07/07/16

Checked by: James Drummond-Murray
Position: Senior Project Manager
Date: 07/07/16

Signed:

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Summary

Oxford Archaeology East undertook archaeological monitoring along the route of the Braintree PZ Supply/Demand Balance pipeline for Anglian Water. This report deals with those sites and findings uncovered on the route from the east of Braintree (TL7803 2245), in the north-west, to Cressing (TL7953 2168), in the south-east, between the October 2014 and March 2015.

Archaeological monitoring was required along the entire length of the pipeline which ran for 1.8km. Cropmarks were also visible adjacent to several fields along the route near Cressing. The site of a demolished post-medieval farm house had also been identified.

Monitoring of topsoil and subsoil removal on the route uncovered no significant archaeological features. A metal detector survey, conducted along the entire route, recovered no artefacts. No archaeological sites were uncovered along the course of the route.
1 INTRODUCTION

1.1 Location and scope of work

1.1.1 Archaeological monitoring was conducted along the route of the Braintree PZ Supply/Resources balance pipeline; this report covers a 1.8km section of the route running from the east of Braintree to Lanham Farm, north of Cressing (Figure 1; TL7803 2245 to TL7953 2168). Other sections of the route are detailed in OA East reports 1685 and 1686 (Green and Rees 2016 and Rees 2016).

1.1.2 This archaeological monitoring and excavation was undertaken in accordance with Briefs issued by Teresa O'Connor of Essex County Council (ECC) supplemented by Specifications prepared by OA East (Drummond-Murray 2014).

1.1.3 The work was designed to assist in defining the character and extent of any archaeological remains within the proposed development area, in accordance with the guidelines set out in National Planning Policy Framework (Department for Communities and Local Government March 2012).

1.1.4 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

1.2 Geology and topography

1.2.1 The majority of the pipeline routes lie on Lowestoft Formation Sand and Gravels overlying London Clay (http://mapapps.bgs.ac.uk/geologyofbritain/home.html). The pipeline crossed through predominantly arable farmland and pasture. From Braintree to Cressing the route fell from 69m to 65m O.D. in a shallow valley before rising again to 69m O.D. at its southern end.

1.2.2 This segment of the route began directly to the east of the A120 Braintree by-pass to the south-east of the town. The route here crossed entirely through arable fields with one crossing over Lanham Farm Road.

1.3 Archaeological and historical background

1.3.1 A search of the Essex Historic Environment Record (EHER) was carried out for all sites within 500m of the route of the pipeline (Figure 2). This information has been supplemented by reference to published works in the vicinity of the sites identified.

Prehistoric

1.3.2 There is evidence for continuous human occupation in Essex from the Palaeolithic period onwards, with flint scatters including tools having been recovered from across the county associated particularly with ecotonal and estuarine environments (Wymer 1996, 2; Jacobi 1996, 10).

1.3.3 Across the county it is common to find Neolithic sites associated with earlier, Mesolithic, activity. There was an increasing emphasis towards estuarine locations and river terrace deposits. There are no sites of this period within the Study Area, however Neolithic Carinated Bowl pottery was recovered from Great Waltham, 10km to the south, indicating a Neolithic presence in this landscape (Healy 2012, 3).
1.3.4 River valleys, such as that of the Blackwater, continued in importance into the Bronze Age, with these corridors often being the focus of settlement and communication in the Middle and Later Bronze Age (Yates 2012, 31).

1.3.5 There are no Iron Age sites within the Study Area, the nearest major sites are the settlement of Little Waltham 10km to the south and the cemetery at Boreham 14km to the south (Sealey 2012, 40;46).

**Roman (AD43-c.410)**

1.3.6 Two important Roman roads intersect to the west of the Study Area. The Chelmsford to Long Melford road runs north-east to south-west through Braintree (EHER6057). This road intersects with the course of Stane Street, which runs east to west through the centre of Braintree and east towards Bradwell to the north of the Study Area (EHER1226).

1.3.7 Although no major settlement appears to have been located in this area during the Roman period, evidence of occupation has been found in Braintree, to the north-west. Cremations possibly dating to the early Roman period (EHER6471) have been uncovered on Rosemary Avenue, 500m to the east of Panfield Lane, whilst a coin also dating to the Early Roman period was found at Bocking (EHER6344). Another coin of Roman date has been found at Bovingdon Road, Bocking (EHER8263).

**Saxon and medieval**

1.3.8 There is no surviving archaeological evidence for Saxon occupation in the area. A moated site was located 220m south-west of the pipeline route in Cressing (EHER6437).

**Post-medicval**

1.3.9 Two historic buildings dating to the post-mediavel period are located at the Cressing end of the route. These are the late 16th century building of Lanham Manor Farmhouse (EHER6438) and a timber framed building at Fells Farm (EHER29955) 200m to the north-east of the route. The location of Lower Farm, Lanham Green is shown on the 1st edition Ordnance Survey map from 1887 (Figure 3) to the north of Langham Wood. This lies approximately 10m to the north of the route of the pipeline.

**Cropmarks**

1.3.10 There are nine entries in the EHER for cropmarks, primarily plotted as part of the National Mapping Programme, which may represent archaeological features in or adjacent to the Study Area (Figures 2 - 4).

1.3.11 Aerial photographic survey of the area between the A120 and Cressing identified several sites of possible former field boundaries (EHER14191; EHER14211; EHER14218; EHER14222; EHER14223; EHER14231; EHER14236; EHER14237; EHER14232)

1.3.12 The remains of what may be a pre-Roman fieldsystem have been identified at Lanham Wood, west of Bradwell Cressing (EHER6521). The cropmarks consist of probable boundaries, rectangular and rectilinear enclosures, ring ditches, pits, trackways and circular enclosures.
1.4 Acknowledgements

1.4.1 The author would like to thank Jo Everitt of Anglian Water who commissioned and funded the works. The sites were monitored by Teresa O’Connor who also wrote the brief for archaeological works. The works were managed by James Drummond-Murray and the report was edited by Rachel Clarke. Mark LePort of @One Alliance managed the overall work on this segment of the pipeline and facilitated the archaeological works through provision of machines and drivers.
2 AIMS AND METHODOLOGY

2.1 Aims
2.1.1 The original aims of the project were set out in the Brief and Written Scheme of Investigation (Drummond-Murray 2014; O'Connor 2014) prior to the commencement of works. The objective of the monitoring was to mitigate against the effects of the groundworks in the development area and to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any archaeological deposits.

2.1.2 The works also aimed to add to the current knowledge of conditions for the preservation of archaeological remains. Linear works such as these provide a valuable insight into the depth and preservation of archaeological deposits and sites over a wide area, and it was recognised that the monitoring of this pipeline would provide an opportunity to characterise and map archaeological deposits on a large scale.

2.2 Methodology
2.2.1 The methodology used followed that outlined in the Briefs and detailed in the Written Schemes of Investigation. Machine excavation was carried out on all parts of the route by a 360-type tracked excavator using a 1.8m wide flat bladed ditching bucket.

2.2.2 Monitoring took place along the entire length of the pipeline during the topsoil strip and again during the cutting for the pipe trench by a suitably qualified and experienced archaeologist. Monitoring also took place of the pits at locations where the pipeline had to be drilled under roads and water courses.

2.2.3 Topsoil was scanned with a metal detector prior to stripping and all spoil, exposed surfaces and features exposed by the strip were scanned. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

2.2.4 All archaeological features and deposits were recorded using OA East's pro-forma sheets. Trench locations, plans and sections were recorded at appropriate scales and photographs were taken of all relevant features and deposits.

2.2.5 The pipeline was mostly located in ploughed arable fields or pasture with access pre-arranged by Anglian Water. Although site conditions were generally good, heavy clay geology along the entire route in this area led to flooding of large parts of the easement particularly in the valley at Lanham Farm Road. Flooding was a particular problem during the cutting of the pipe trench.
3 RESULTS

3.1 Introduction
3.1.1 The route of the pipeline passed through six fields between Braintree and the water tower at Lanham Green Road. The results of the monitoring visits along the entire length of the route are described below and summarised in Appendix A.

3.2 Chainage 0m to 1798m
3.2.1 A metal detecting survey was carried out on all fields prior to the initial strip of the easement. Along the course of the route natural deposits or subsoil were exposed in all of the fields. The initial strip removed topsoil, measuring between 0.25m and 0.30m deep, revealing natural geological deposits in places (Plate 1). A shallow subsoil, measuring up to 0.1m deep, was observed between Chainage 550m and 1000m and this may have continued in places up the slope towards Chainage 0m masking archaeological features at that level (Plate 2).

3.2.2 The cropmarks located in these areas were not observed during the later pipe trench cutting perhaps due to adverse weather conditions which hampered this stage of the project (Plate 3).

3.2.3 A walkover and metal detector survey of the stripped areas revealed no archaeological finds or features. In some areas flooding of the easement and wet conditions during the machining hindered the walkover survey and feature identification. The identification of sites in these areas relied on artefact densities uncovered in topsoil and subsoil.

3.2.4 No artefacts were recovered from any part of this route. It was also notable that very few post-medieval or modern artefacts had been ploughed in to the topsoil.

3.2.5 The route of the pipeline was altered between chainage 850m to 950m in order to avoid disturbing the remains of 'Lower Farm', recorded on historic maps in this location (Plate 4). Observations made during the cutting of the pipe trench in this area identified no archaeological remains.
4 DISCUSSION AND CONCLUSIONS

4.1.1 Archaeological monitoring along the route of the Braintree PZ pipeline between Braintree and Cressing uncovered no archaeological sites or artefacts. The presence of cropmarks between chainage 400m and 800m had led to the expectation of possible Roman or Iron Age finds from this area, however these did not materialise. It is possible that these features were masked by clayey subsoil below the level of the topsoil strip. The narrow window provided by the pipe trench cutting and the adverse weather conditions hindered identification at the later stage of investigation.

4.1.2 Figure 3 illustrates a correlation between the cropmarks and the modern, extant field boundaries as well as the buildings of Lower Farm. It is possible that some of these cropmarks lay in areas already disturbed by recent field boundary activity, hedge-laying and ditch cleaning. It is often the case on heavy clay soils that boundary ditches become filled with fine particles eroded from the sides and bank material making them difficult to identify even in good conditions of an excavation. The absence of ditches during these works does not negate the possibility these features may be found elsewhere in the vicinity.

4.1.3 No evidence of the post-medieval Lower Farm was uncovered between chainage 850m and 950m. There was a similar absence of topsoil artefacts in the easement to indicate that a post-medieval agricultural and domestic site was near by. It is possible that these fields have been extensively walked and metal detected in the past, with any evidence of sub-surface activity already removed from the topsoil.
APPENDIX A. TRENCH DESCRIPTIONS

*Trench Depths: Braintree to Cressing*

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## APPENDIX B. ESSEX HISTORIC ENVIRONMENT RECORD SUMMARY SHEETS

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South-east of Braintree to Lanham Green Road, Cressing (TL7803 2245 - TL7953 2168) |  |
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<td>Periods Represented: N/A</td>
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## SUMMARY OF FIELDWORK RESULTS:

*Oxford Archaeology East undertook archaeological monitoring along the route of the Braintree PZ Supply\Demand Balance pipeline for Anglian Water.*

*Monitoring was conducted across six field to the south-east of Braintree from the A120 to Lanham Green Road in the south-east. Cropmarks and historic map evidence had identified the potential for Iron Age, Roman and post-medieval archaeology in this area.*

*Monitoring, walkover and metal detector survey uncovered no sites and no artefacts along this route.*

---

Previous Summaries/Reports: None.

Author of Summary: Gareth Rees  
Date of Summary: 23\04\2015
APPENDIX C. BIBLIOGRAPHY


O’Connor, T. 2014 Archaeological monitoring and excavation on the construction of the Braintree PZ Supply Demand Balance Cressing Transfer main. ECC


APPENDIX D. OASIS REPORT FORM
All fields are required unless they are not applicable.

**Project Details**

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**Type of Project/Techniques Used**

| Prompt | Direction from Local Planning Authority - PPS 5 |

**Please select all techniques used:**

- Field Observation (periodic visits)
- Full Excavation (100%)
- Full Survey
- Geophysical Survey
- Open-Area Excavation
- Part Excavation
- Part Survey
- Recorded Observation
- Remote Operated Vehicle Survey
- Salvage Excavation
- Salvage Record
- Systematic Field Walking
- Systematic Metal Detector Survey
- Test Pit Survey
- Watching Brief

**Monument Types/Significant Finds & Their Periods**

List feature types using the NMR Monument Type Thesaurus and significant finds using the MDA Object type Thesaurus together with their respective periods. If no features/finds were found, please state “none”.

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<td>Project Design Originator</td>
<td>James Drummond-Murray</td>
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<td>Project Manager</td>
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**Digital Media**

- Database
- GIS
- Geophysics
- Images
- Illustrations
- Moving Image
- Spreadsheets
- Survey
- Text
- Virtual Reality

**Paper Media**

- Aerial Photos
- Context Sheet
- Correspondence
- Diary
- Drawing
- Manuscript
- Map
- Matrices
- Microfilm
- Misc.
- Research/Notes
- Photos
- Plans
- Report
- Sections
- Survey

**Notes:**
Figure 2: Essex HER entries within 500m of the easement
Figure 3: 1st edition Ordnance Survey map showing Lower Farm, Cressing, 1887
Figure 4: Cropmark sites
Plate 1: Chainage 900m after topsoil strip, facing east

Plate 2: Depth of topsoil strip at Chainage 600m showing under lying clayey subsoil
Plate 3: Chainage 850m, facing east - potential location of Lower Farm after topsoil strip

Plate 4: Chainage 1300m showing impact of adverse weather conditions on the site prior to the pipe trench cutting. Facing north-west