

Belton Stepshort Rising Main



Excavation Report and Watching Brief



January 2018

Client: Anglian Water

OA East Report No: 2066

OASIS No: oxfordar3-276119

NGR: TG 4898 0320 to TG 5010 0431

Belton Stepshort Rising Main

Archaeological Excavation and Watching Brief

By Stuart Ladd BA MA PCIfA

With contributions by Katie Anderson BA MA, Lawrence Billington MA PhD, Matt Brudenell BA PhD, Denise Druce BA PhD, Carole Fletcher HND BA ACIfA, Rachel Fosberry ACIfA, Ted Levermore BA, Richard Mortimer MCIfA, Sarah Percival BA MA MCIfA

Editor: Lawrence Billington MA PhD

Illustrators: Stuart Ladd BA MA PCIfA, David Brown BA and Gillian Greer BSc MCIfA

Report Date: December 2017

Report Number: 2066

Site Name: Belton Stepshort Rising Main

HER Event No: ENF 141721 / ENF 141722 / ENF 141723 / ENF 141724

Date of Works: March- 2017

Client Name: Anglian Water

Client Ref:

Planning Ref: N/A

Grid Ref: TG 4898 0320 to TG 5010 0431


Site Code: ENF 141721 / ENF 141722 / ENF 141723 / ENF 141724

Finance Code: XNFBSP17

Receiving Body: Norfolk Museums and Archaeology Service

Accession No: ENF 141721 / ENF 141722 / ENF 141723 / ENF 141724

Prepared by: Stuart Ladd
Position: Project Officer
Date: January 2018

Checked by: Matt Brudenell
Position: Senior Project Manager
Date: January 2018
Signed: 
.....

Disclaimer

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

Oxford Archaeology East,

15 Trafalgar Way,
Bar Hill,
Cambridge,
CB23 8SQ

t: 01223 850500
f: 01223 850599
e: oaeast@thehumanjourney.net
w: <http://thehumanjourney.net/oaeast>

© Oxford Archaeology East 2017
Oxford Archaeology Limited is a Registered Charity No: 285627

Table of Contents

Summary.....	7
1 Introduction.....	8
1.1 Location and scope of work.....	8
1.2 Geology and topography.....	8
1.3 Archaeological and historical background.....	9
1.4 Acknowledgements.....	11
2 Aims and Methodology.....	12
2.1 Aims.....	12
2.2 Site Specific Research Objectives.....	12
2.3 Methodology (Strip Map and Record excavation; Sites 1 and 3).....	12
2.4 Methodology (Watching Brief; Site 2).....	13
3 Results.....	14
3.1 Site 1: Land off New Road, Belton.....	14
3.2 Finds Summary (Site 1).....	20
3.3 Environmental Summary (Site 1).....	20
3.4 Site 2: Land off Gorleston Lane, Bradwell.....	21
3.5 Site 3: Magdalene Recreation Ground, Bradwell.....	22
3.6 Finds and Environmental Summary (Site 3).....	23
4 Discussion and Conclusions.....	24
4.1 Site 1: Land off New Road, Belton.....	24
4.2 Site 2: Gorleston Lane, Bradwell.....	27
4.3 Site 3: Magdalene Recreation Ground, Bradwell.....	27
4.4 Conclusions: Significance and publication.....	28
Appendix A. Context Inventory.....	29
Appendix B. Soil Profiles and Geology.....	34
B.1 Site 1: Land off New Road, Belton (ENF141721).....	34
B.2 Site 3: Magdalene Recreation Ground.....	34
Appendix C. Finds Reports.....	35
C.1 Beaker Pot (Site 1).....	35
C.2 Pottery (Site 1).....	36
C.3 Ceramic building material (Site 1).....	38
C.4 Flint (Site 1).....	39
C.5 Other finds.....	40

Appendix D. Environmental Reports.....	41
D.1 Environmental samples (Site 1).....	41
D.2 Charcoal.....	42
D.3 Radiocarbon dating.....	43
Appendix E. Historic Maps Consulted.....	44
Appendix F. Bibliography.....	44
Appendix G. OASIS Report Form.....	46

List of Figures

- Fig. 1 Site 1 location showing excavated areas, pipeline route and Norfolk HER and NMP records. Scale 1:5000.
- Fig. 2 Sites 2 and 3 location showing excavated areas, pipeline route and Norfolk HER and NMP records. Scale 1:5000.
- Fig. 3 Site 1: West. Scale 1:250.
- Fig. 4 Site 1: Opposite Cherry Cottage. Scale 1:500.
- Fig. 5 Site 1: Ditch **76**. Scale 1:100.
- Fig. 6 Site 1: Opposite Acre Meadow. Scale 1:500.
- Fig. 7 Site 1: Opposite The Chantry and The Lodge. Scale 1:250.
- Fig. 8 Site 1: Eastern end. Scale 1:250.
- Fig. 9 Site 3: Western end. Scale 1:500.
- Fig. 10 Site 3: Eastern end. Scale 1:500.
- Fig. 11 Other Section Drawings.
- Fig. 12 SF1: Complete Beaker from Pit **20**.

List of Plates

- Plate 1 Site 1: Ditch **106** and base of test pit 1. Looking south.
- Plate 2 Site 1: Possible ditch **79** and tree throw 67. Looking south.
- Plate 3 Site 1: Feature **91**. Looking south.
- Plate 4 Site 1: Ditch **76**. Looking south-east.
- Plate 5 Site 1: Feature **45**. Looking north.
- Plate 6 Site 1: Pit or treethrow **99**. Looking north-west.
- Plate 7 Site 1: Pit or treethrow **20**, containing complete Beaker (SF1). Looking north.
- Plate 8 Site 1: Possibly ditch terminus **14**. Looking south-east.
- Plate 9 Site 1: Pit or treethrow **17**. Looking south.
- Plate 10 Site 1: SF1: Complete Beaker from pit **20**.
- Plate 11 Site 2: Excavated trench and stripped top soil immediately north of Gorleston Lane. Looking north-east.
- Plate 12 Site 3: Looking west, showing buried old soils (foreground) and truncated sand with thin soil cover (background).
- Plate 13 Site 3: Features **204** (foreground) and **202** (background),
- Plate 14 Site 3: Section through possible gravel concentration (205) in subsoil, showing topsoil sealed by sand overburden.
- Plate 15 Site 3: 19th century ditch **211**. Looking south.

List of Tables

Table 1: Site locations and event numbers.....	8
Table 2: Site geologies (BGS 2017).....	9
Table 3: Site 1 Soil profiles.....	34
Table 4: Site 3 Soil profiles.....	34
Table 5: Pottery quantification.....	36
Table 6: Prehistoric pottery quantification.....	37
Table 7: Summary ceramic building material catalogue (Site 1).....	39
Table 8: Quantification of the flint assemblage (Site 1).....	39
Table 9: Environmental samples (Site 1).....	41
Table 10: Results of the charcoal assessment.....	42
Table 11: Radiocarbon dates.....	43

Summary

In March and May 2017, Oxford Archaeology East undertook two excavations and a watching brief (Sites 1-3) along the Belton Stepshort to Great Yarmouth Pipeline for Anglian Water (TG 4898 0320 to TG 5010 0431).

Along the western part of the pipeline route, south of New Road, Belton, (Site 1) a number of archaeological and natural features were identified and excavated. Despite the abundance of previously recorded cropmarks in the area, only one pre-modern feature identified during the excavation corresponded to the cropmark evidence. This feature, a ditch, has been radiocarbon dated to the Middle Bronze Age, and produced Late Bronze Age/Early Iron Age pottery from its upper fill. Numerous pit or tree throw-like features and possible ditches were also excavated, most of which did not produce finds, or contained small quantities of residual material. However, a complete Beaker vessel was recovered from a pit located close to the cropmark of a ring ditch. This feature has been radiocarbon dated to the late third millennium cal BC, and a similar date was acquired on a dump of charcoal recovered from an adjacent feature, possibly the terminus of a ditch. Elsewhere, a small quantity of earlier Neolithic pottery and flintwork was recovered from a probable tree throw feature. Roman finds and a single Early Saxon sherd were also recovered as residual finds from modern boundary features.

A watching brief carried out along the pipeline route off of Gorleston Lane (Site 2) did not reveal any archaeological finds, deposits or features.

Work at the Magdalene Recreation Ground, Gorleston (Site 3) identified a single 19th century ditch, but no other archaeological remains were encountered. It was not possible to locate a series of large, probably post-medieval, earthwork banks which had been recorded on aerial photographs of this area taken in the mid twentieth century, and it seems likely that these earthworks have been destroyed by ploughing and subsequent landscaping of the recreation ground.

1 INTRODUCTION

1.1 Location and scope of work

- 1.1.1 Archaeological excavations and watching briefs were conducted along the 3821m line of the Belton Stepshort Rising Main. The route passed through the parishes of Belton with Browston in the west through Bradwell to Gorleston-on-Sea in the east. Archaeological work was undertaken along the sections shown in Table 1. Chainage refers to the total distance from west to east along the project according to Anglian Water plans.

Site no.	Site name (given by OA East)	NGR	Chainage	Archaeological Investigation method	Event no.
1	Land off New Road	TG 4898 0320 to TG 4992 0308	483m – 1427m	Strip, map and sample excavation	ENF141721
2	Land off Gorleston Lane	TG 5088 0208 to TG 5117 0313	2529m – 2934m	Monitoring and recording	ENF141722
3	Magdalene Recreation Ground	TG 5133 0308 to TG 5150292	3158m – 3500m	Strip, map and sample excavation	ENF141723
4*	Land off Clay Lane	TG 5010 0431	NA	Strip, map and sample excavation	ENF141724
* Site 4 was dropped from the scheme and no field work was undertaken					

Table 1: Site locations and event numbers

- 1.1.2 The archaeological works were commissioned by Anglian Water in response to two briefs and advice issued by James Albone of Norfolk County Council Historic Environment Service, supplemented by a Written Scheme of Investigation prepared by OA East (Brudenell and Blackburn 2017).
- 1.1.3 The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment 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 Superficial geology of the route comprises predominantly sands, gravels and laminated silts of Happisburgh Glacigenic Formation. The solid geology comprises sands and gravels of the Crag Group. Details of the geology and topography of each of the archaeological investigation sites is given in Table 2.

Site no.	Superficial geology	Solid geology	Topography and land use
1	Sands (Happisburgh Glacigenic Formation)	Sand and gravels (Crag Group)	Gently undulating, 7-12m OD. Arable.
2	Sands (Happisburgh Glacigenic Formation)	Sand and gravels (Crag Group)	Sloping down to the north-east, 6-12m OD. Arable
3	Sands (Happisburgh Glacigenic Formation)	Sand and gravels (Crag Group)	Flat, 8-9m OD. Playing field
4*	Sands (Happisburgh Glacigenic Formation)	Sand and gravels (Crag Group)	Flat, 5m OD. Arable
* Site 4 was dropped from the scheme and no field work was undertaken			

Table 2: Site geologies (BGS 2017)

1.2.2 Soil profiles and details geological variations are listed for Site 1 in Table 3 and for Site 3 in Table 4 (Appendix B.).

1.3 Archaeological and historical background

Introduction

1.3.1 Numbers from the Norfolk Historic Environment Record are prefixed in the text with NHER and where appropriate are shown on Figures 1 and 2, alongside the digitised National Mapping Program (NMP) crop marks. As broader NHER areas of crop marks contain phased sub-areas with their own entries, the overlapping designations are in places difficult to effectively plot and display. For example NHER 11552 (undated crop marks north and south of New Road on Figure 1) contains NHER 49259 (possibly medieval to post-medieval crop marks) and overlaps with NHER 45216 (multi-phase crop mark site north of New Road). NHER 45216 is the parent designation for the phased crop mark sites.

1.3.2 Where specific crop marks have been grouped into a phased NHER entry, they are detailed in the smaller scale excavation plans, Figures 3-10.

Site 1: Land off New Road

1.3.3 To the west of Bradwell village in the area around New Road, a large number of crop marks of multiple periods have been identified, shown on Figure 1 (south of New Road: NHER 45261; to the north: 45216; both overlapping NHER 11552).

Early Prehistoric

1.3.4 A Mesolithic macehead was found near Belton (NHER 10478). Neolithic and later flints have been recovered north of the pipeline route (NHER 30084). There is a crop mark of a possible Neolithic long barrow/mortuary enclosure some 700m north of Site 1 (NHER 43603).

Bronze Age

1.3.5 A ring ditch crop mark, approximately 15m in diameter, possibly a Bronze Age round barrow, is recorded south of New Road, close to the junction with Beccles Road (NHER 45209). A second lies to the north (NHER 45210). Others are located to the south-east (not shown on Figure 1; NHER 12777, 13432, 45207-8, 45210).

Later Prehistoric to Roman

- 1.3.6 Located between Beccles Road and the former railway (NHER 13574) are a series of crop marks dating to the prehistoric or Roman periods. Here a complex of enclosures, trackways and fragmentary field boundaries have been identified (NHER 45215), within which specific foci have been recognised (e.g. NHER 45225 and NHER 30302). To the south-east, field systems of possible Roman date (or post-medieval, fossilising Roman elements) have been mapped (NHER 43592). A particularly clear enclosure with internal features is recorded 250m south of the eastern end of Site 1 (NHER 18388) and is thought to belong to this period.
- 1.3.7 A number of finds from this period have been recovered in the area, including a Roman/Iron Age brooch (NHER 24807). Closer to the site, a Roman brooch was found just south of New Road (NHER 20866), and a denarius further south (NHER 18641).

Saxon and Medieval

- 1.3.8 A possibly Late Saxon silver ingot was found near the eastern end of Site 1 (NHER 39556). Medieval finds have come from within 160m of the site: a coin (NHER 18641), a buckle (NHER 37127), a harness mount (NHER 37556); as well as further north: buckle plate (NHER 25607).
- 1.3.9 The parish boundary between Belton with Browston and Bradwell crosses the site, reflecting the site's location away from medieval settlement centres.

Post-medieval

- 1.3.10 The historic landscape characterization of the field around New Road (19th century) is primarily 20th century agriculture, with consolidated 19th century enclosures. The crop mark of a track/road that preceded New Road out of Belton is visible to the south (part of NHER 11552; Figure 1). Additional crop marks perpendicular to New Road represent former modern fields now consolidated (also NHER 11552) and visible on historic maps. This complex extends north of New Road, comprising field boundaries and a small rectilinear enclosure (NHER 49259).

Site 2: Land off Gorleston Lane (Chainage 2529m – 2934m) and Site 3: Magdalene Recreation Ground (Chainage 3158m – 3500m)

Prehistoric

- 1.3.11 A fieldwalking survey took place immediately south of Gorleston Lane where 113 worked flints, one sherd of Late Bronze Age or Early Roman Pottery were found (NHER 59571). The flint recovered largely dated to the Mesolithic and Neolithic and pieces recovered included blade cores, blades, scrapers and debitage.
- 1.3.12 South of Sites 2 and 3, a fieldwalking and metal detecting survey has also been carried (NHER 60114), covering part of a group of Bronze Age barrows (NHER 43551). Over 800 flints were recovered, thought to date predominately to the Middle and Late Bronze Age. West of this lies another possible barrow (NHER 12779). Possible Middle Bronze Age enclosures have been excavated here and potentially form part of the crop mark complex south-east of Site 3 (NHER 45056).

Late Prehistoric to Roman

- 1.3.13 A major, straight land boundary or possible road of late prehistoric or Roman date has been recorded as crop marks passing west-east around 250m south of Site 2 (NHER 43591, 43593). An additional sinuous trackway (NHER 43529) meets the eastern end of this south of Site 3. Extensive, dense areas of field systems related to this feature

have been mapped from crop marks in the areas south of the two sites (NHER 45055). More fragmentary but similarly extensive systems are known to the north of Site 3 (NHER 43466) and also north-west of Site 2 (NHER 43476 and 43476).

Saxon to Medieval

- 1.3.14 An unusual Early Saxon mount or figurine was found south of the sites (NHER 60841). South of Gorleston Lane, field walking produced two Late Saxon Pottery sherds, and a small amount of medieval pottery (NHER 59571). A Late Saxon book mount was found to the north of Site 2 (NHER 18004)
- 1.3.15 Medieval metal finds include metal work at some distance north of Site 2 (NHER 18377, 18995 and 18991 to 18993).

Post-Medieval

- 1.3.16 Crop marks of medieval or post-medieval banked enclosures lie immediately north of Site 2 (NHER 43457) and to the south-east of Site 3 (NHER 45056), informed by the Iron Age/Roman landscape. Elements of this south-eastern system have however been dated to the Middle Bronze Age (NHER 45056/57396). Evaluation of the south-eastern part of this system in 1998 failed to identify these banks in the ground, probably due to increased plough damage (NHER 45056). Similarly excavation at James Paget Hospital failed to identify these features.

Second World War

- 1.3.17 Numerous second world war installations are recorded around Bradwell and the vicinity of Site 3. These include air raid shelters (the closest being 160m north of Site 3; NHER 42255) as well as the site of a searchlight batter or radio site (NHER 42518). The site of a high frequency direction finding station lies only 60m west of Site 2 (NHER 42232).

1.4 Acknowledgements

- 1.4.1 Work was commissioned by Jo Everitt of Anglian Water. For Site 1, with the support of land owner Richard Beevor, machining was undertaken by Anthill Plant Hire Ltd. Sites 2 and 3 were excavated by Barhale. OA East excavation staff were Lindsey Kemp, Fergus Hooper, John Percival and Stuart Ladd, with Dave Brown completing site survey. The project was monitored by James Allbone of Norfolk CC and managed by Matt Brudenell.

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 (Brudenell and Blackburn 2017).
- 2.1.2 The main aims of this excavation were
- To mitigate the impact of the development on the surviving archaeological remains. The development would have severely impacted upon these remains and as a result a full excavation was required, targeting the areas of archaeological interest highlighted by the previous phases of evaluation.
 - To preserve the archaeological evidence contained within the excavation area by record and to attempt a reconstruction of the history and use of the site.
- 2.1.3 The aims and objectives of the excavation were developed with reference to Regional and Local Research Agendas:
- Research and Archaeology Revisited: A Revised Framework for the East of England (Medleycott 2011)
 - 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 & Glazebrook 2000)

2.2 Site Specific Research Objectives

- 2.2.1 Research objectives differed according to the location of the sites and the nature of the archaeological intervention.

Site 1: Land off New Road, Belton (ENF 141721)

- Attempt to phase the palimpsest of crop marks in the area (e.g. NHER 18641; 20866; 25807)
- Contribute to the understanding of the functions of different crop marks boundaries and enclosures

Site 2: Land off Gorleston Lane (ENF141722)

- Provide a context for the Prehistoric, Roman, Saxon, and medieval find recovered from fieldwalking and metal detecting in this area (e.g. NHER 59571; 60114)

Site 3: Magdalene Recreation Ground (ENF141723)

- Attempt to phase the palimpsest of crop marks in the area (e.g. NHER 45056; 43466)
- Contribute to the understanding of the functions of different crop marks boundaries and enclosures

2.3 Methodology (Strip Map and Record excavation; Sites 1 and 3)

- 2.3.1 The methodology used followed that detailed in the Written Scheme of Investigation (Brudenell and Blackburn 2017).

- 2.3.2 Machine excavation was carried out by a tracked 360 type excavator using a 2.2m wide flat bladed ditching bucket. under constant supervision of a suitably qualified and experienced archaeologist.
- 2.3.3 Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.
- 2.3.4 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 colour and monochrome photographs were taken of all relevant features and deposits.
- 2.3.5 Specific methodologies were required on the different sites and are detailed below.

Site 1: Land off New Road, Belton

- 2.3.6 Specifications from Anglian Water/Barhale meant a limited working width was available for the trench. In total the allocated easement area was 8m wide. Of this, the northern 2m of the easement was allocated for the storage of topsoil and was to remain unexcavated. Any subsoil deposits also had to be stored on the northern edge of the easement and, where subsoil deposits were present, this increased the amount of space required for storage of spoil. The width of the strip thus varied from 5-6m (no subsoil) down to 3-4m, depending on the volume of subsoil requiring storage. The plans on Figures 3-8 show the area stripped down to the natural geology.
- 2.3.7 The presence of overhead cables prevented machining in two lengths each of c.40m in the east of the site.
- 2.3.8 Site conditions varied from wet to bright and sunny. Alternate drying and re-wetting and weathering of features did not improve their visibility.

Site 3: Magdelene Recreation Ground

- 2.3.9 Excavation proceeded in the same manner as with Site 1, starting in the west. Restrictions on soil storage were similar. Of a 12m easement, 4m was reserved for topsoil storage, leaving only 8m in which to strip and store subsoil. The west of the area had very thin soil, allowing a relatively wide strip to be excavated. The presence of deeper soils in the east and the need to keep spoil within the 8m width of the easement meant that here it was only possible to machine a narrow trench down to the top of the natural sands and gravels.

2.4 Methodology (Watching Brief; Site 2)

- 2.4.1 Stripping of top soil was undertaken with a 20 tonne tracked 360-type excavator using a ditching bucket. Pipe trenches and bore hole pits were excavated with a toothed bucket. This was observed by a trained, experienced archaeologist.
- 2.4.2 In the absence of archaeological remains general site photos were taken as a record.
- 2.4.3 Site conditions were bright and sunny.

3 RESULTS

3.1 Site 1: Land off New Road, Belton

3.1.1 Results are discussed from west to east in groups using approximate national grid references and local landmarks. Within each group, features are described from west to east. Landmarks refer to places on the opposite side of New Road, to the north, in line with the trench.

3.1.2 The majority of features were so shallow and irregular that it was hard to be certain they were archaeological, or even tree throws rather than the result of freeze-thaw or water movement in the soft sands. Positively identified archaeological/modern features were:

- Probable earlier Neolithic tree throw feature **89** (Opposite Acre Meadow/The Chantry)
- Early-Middle Bronze Age Ditch **14** adjacent to pit **20** (East of The Lodge)
- Early-Middle Bronze Age Beaker pit **20** near the eastern end of Site 1 (East of The Lodge)
- Middle-Late Bronze Age ditch **76** (between Cherry Cottage and Acre Meadow)
- Historic field boundaries throughout (from west: **106?**, **79**, **71**, **47**)
- Presumed modern ditches/wheel ruts at the eastern end of Site 1 (East of The Lodge: **8**, **10**, **12**)

3.1.3 Key sections are shown adjacent to their respective plans (Figures 3-10) and other sections located on plans are shown on Figure 11.

3.1.4 Soil profiles are given in Table 3, Appendix B.

West of New Road Sports and Leisure Centre (Figure 3) (TG 49102 03177 to TG 49182 03160)

3.1.5 Stripping of this part of the pipeline easement exposed a thin sub-soil of mid-brown sands around 75m in length from west to east. Initially it was hard to distinguish this from natural sand/gravel deposits. Four test pits (1, 2, 3, 4) 1m-square were excavated through this deposit, which proved to be 0.2-0.25m thick and devoid of finds (see Plate 1). A trench was then re-machined through this deposit, exposing the natural geology and revealing the features described below.

3.1.6 This western part of the trench contained several pit/tree throws and three, probably modern, ditches. The NMP records two crop marks in this area; a late prehistoric or Roman ditch that can be traced up until just south of the western end of the trench (NHER 45215) and a post-medieval boundary (NHER 11552), which also appears on the 1838 Tithe map and Ordnance Survey Six Inch map. Only the latter cropmark might be represented by a feature encountered during the excavation.

3.1.7 Ditch **104** (Plate 1) crossed the area on a south-west to north-east alignment. This feature was 1m wide, slightly irregular in plan and relatively shallow (0.13m deep), with gently sloping sides and a concave base. Its single fill (105) was a light brown silty sand. It produced single sherds of both Neolithic and Roman pottery, thought to be residual.

3.1.8 Ditch **106** (Sec. 36, Fig. 11) was aligned closer to north-south than Ditch **104** (14m distant) but was otherwise similar. It was moderately wider at 1.3m and deeper at

0.28m but with a similar profile. Its fill (107) was similar and produced no finds. Ditch **106** might correspond with the cropmark of a post-medieval ditch mapped 3m to the east (NHER 11552).

- 3.1.9 Pit or treethrow **95** was sub-oval, 2.2m long and 0.8m wide, with its longer axis aligned north-west to south-east. It was 0.24m deep with shallow sides and a concave base (Sec. 35, Fig. 11). Its fill (96) was a mid-yellow fine sand representing disturbed/redeposited natural. It produced a small sherd of decorated Beaker pottery.
- 3.1.10 Ditch **93** shared the same alignment as ditch **106** (at a distance of 25m). It was 1.2m wide and 0.26m deep, with shallow sides and a concave base (Sec. 34, Fig. 11).

Opposite Cherry Cottage (Figures 4 & 5)
(TG 49322 03123 to TG 49462 03107)

- 3.1.11 This section of the excavation included one possible Romano-British ditch at its eastern end (possibly corresponding to a crop mark), as well as possible tree throws and modern ditches. Two crop marks of presumed late prehistoric to Roman date (both NHER 45215) and one undated ditch on a different alignment (NHER 45261) crossed this area. A pair of curving trackway ditches identified as cropmarks (mapped as undated NHER 45261) crossed the area, before crossing (or perhaps abutting) post-medieval track in the south of the field (NHER 11552). These latter two features were identified during the excavation.
- 3.1.12 Pit or tree throw **65** was sub-oval, with its longer axis aligned west-north-west to east-south-east. It was 2.2m long, 0.9m wide and 0.25m deep with shallow sides and a flat/concave base (Sec. 24, Fig. 11). It was filled with mid brown sandy silt (66) containing no finds.
- 3.1.13 Pit or tree throw **63** was also sub-oval, with its longer axis aligned north to south. It was 0.8m long, 0.3m wide and only 0.14m deep with shallow sides. Its mid reddish brown silt fill (64) produced no finds.
- 3.1.14 Tree throw **67** was less uncertain (Plate 2), having a less regular appeared in plan. It was broadly sub-circular in plan, 2.5m long, 1.6m wide and 0.25m deep, with shallow sides and a concave base (Sec. 25, Fig 11). Its fill (68) was a dark brown silt, which produced no finds.
- 3.1.15 Ditch **79** was adjacent to treethrow **67** (Plate 2). It was aligned almost north to south, was 1.3m wide and filled with a dark brown silt (Sec. 28, Fig 11). Its southern section had shallow sides and a concave base, but further north it was less regular and harder to define in plan. As such, it may be a natural feature. It did, however, lie on the line of historic ditches which correspond to the parish boundary between Belton with Browston and Bradwell, appearing on the 1st edition OS Six Inch Map and the Tithe Map for Belton.
- 3.1.16 Further east was the intersection of several possible ditches. Ditch **69**, which appeared to cross the trench obliquely on a south east to north west alignment, was extremely ephemeral; cutting through the subsoil and slightly into the weathered top of the natural sand it was largely recorded in the sections of the trench (Sec. 26, Fig. 4). The alignment of this ditch parallels that of a cropmark mapped as lying 5m to the north-east. Its fill (70) was a dark brown silt. Only the very base of the feature remained to be excavated by hand and no finds were recovered.
- 3.1.17 Intercutting ditches **71/73** truncated Ditch **69** (Sec. 26, Fig. 4). Although these features clearly comprised two cuts no clear relationship could not be observed between them. It may be that the bulk of the ditch was on the western side (**71**) and the disturbance on

the eastern side represented a hedge line. Both were approximately 0.4m deep. Their line corresponded with crop marks of a curving track (part of NHER 45261, undated) crossing (or possibly abutting) the post-medieval track to the south (part of NHER 11552).

- 3.1.18 Feature **91** was partially exposed against the southern baulk of the trench (Sec. 33, Fig. 4) It may have represented the rotten root ball of a tree. It was sub-circular and at least 1.6m across. Although it was only 0.2m deep, its base was very irregular with a number of apparent root holes running into the sand (Plate 3). Its fill (92) was mainly dark brown silty sand but included lenses of darker silt, interpreted as rotten vegetation. It produced no finds.
- 3.1.19 Ditch **76** lay at the eastern end of this stretch. It ran obliquely to the trench on a west-north-west to east-south-east alignment, under then end-baulk of the trench where excavation halted for overhead cables (Plate 4). It corresponded with a crop mark (undated; NHER 45261, within 1m) which continued on an east-south-easterly alignment and which appears to pre-date the post-medieval alignments reflected on the tithe map.
- 3.1.20 The ditch was up to 1.1m wide and 0.5m deep and contained two fills (Sec. 27, Fig 5). The lower (77) was a mid/dark brown sandy silt, representing eroded/washed in material from the sides. Environmental sampling of the lower fill produced sufficient charcoal for radiocarbon dating, producing a later Middle Bronze Age date of 1300-1110 cal BC (94.2% confidence; see Appendix D.3). A mixture of species, including heathland taxa, were identified in the charcoal.
- 3.1.21 The lower fill was overlain by a lighter mid-brown silt (78), which produced two sherds (20g) of Late Bronze Age/Early Iron Age pottery from its upper part.

Opposite Acre Meadow/The Chantry (Figure 6)
(TG 49505 03103 to TG 49601 03097)

- 3.1.22 This part of the trench was characterised by irregular, possibly natural, and poorly dated features containing a mixture of prehistoric and modern material alongside possible ditches and a modern boundary ditch. Several crop marks of presumed late prehistoric to Roman date (NHER 45215) had been mapped crossing this part of the trench but none of these could be correlated with features encountered during the excavation.
- 3.1.23 Pit (possible treethrow) **83** was sub-oval, 1.28m long by 1.2m wide. It had a U-shaped profile and was 0.41m deep. It contained three fills. The lowest (84), a dark brown mottled silty sand, appeared to be the result of erosion or disturbance. Overlying this on the eastern side was a light deposit of grey sand (85). It is possible this feature was a small tree throw.
- 3.1.24 Possible treethrow **89** lay against the northern baulk of the trench. Due to difficulties in defining its extent it was partly over-excavated. It was 1.5m wide and at least 1.7m long. Its sides were steep but irregular and its edges were diffuse and difficult to define with any confidence. Its fill (90) was a mid-yellow brown silty sand. As well as five sherds (85g) of Early Neolithic pottery and three worked flints (including a flake struck from a ground flint axehead), this contained a sherd of 16th-19th century pottery and plastics. Given that the Neolithic sherds include a pair of cojoining sherds, and the relatively fresh condition of both the Neolithic pottery and flintwork, it seems very probable that the modern finds represent intrusive material introduced through burrowing/bioturbation of the soft sandy sediments.

- 3.1.25 Possible Ditch **81** was identified, when newly exposed, as crossing the trench on a north-south alignment and interpreted as a modern field boundary. As it weathered, its extent became less clear (except for an absence of gravels along its line). Excavation of a slot at its southern end showed it to be 0.85m wide and 0.27m deep with asymmetric sides, slightly steeper on the eastern western side (Sec. 32, Fig 11). Its fill (82) was a mid reddish brown sandy silt, which produced a small abraded sherd of Neolithic pottery.
- 3.1.26 Pit **87** was 0.8m long, 0.45m wide and only 0.09m deep with its longer axis aligned north-south. Its fill (88) was mottled dark brown sandy silt.
- 3.1.27 Ditch **61** was aligned north-west to south-east. It was 1m wide and 0.36m deep with shallow but asymmetric sides and concave base (Sec. 19, Fig. 11). A sherd of Early Neolithic pottery was recovered from its fill of mid brown sandy silt (62). This feature is on a different alignment to the crop marks of the Roman and the post-medieval boundaries and enclosures plotted in the area, though it might conceivably relate to the former.
- 3.1.28 Ditch **59** appeared as a very pale feature in plan and was excavated as its alignment resembled that of Roman crop marks. However, its fill was so undistinguished from the natural sands that it may well have been the result of a geological process. The portion excavated was 1m wide and 0.36m deep with asymmetric shallow sides and a concave base (Sec. 18, Fig 11). A single sherd of Neolithic pottery was found on the surface of its fill (62), a mid-brown silty sand.
- 3.1.29 A cluster of features was excavated opposite The Chantry. Two circular postholes (**53** and **57**) were 0.35m wide and 0.45m wide respectively, both less than 0.1m deep, little more than scoops (Secs. 17 and 22, Fig. 4). Pit or posthole **55** lay in close proximity. It was sub-circular 0.8-0.6m in diameter and 0.17m deep (Sec 17, Fig. 11). Immediately east of these was a linear patch of disturbance (**47/51**) with uncertain edges, containing both residual Early Saxon pottery and a 19th century pottery sherd. This had an uncertain relationship with modern ditch **49**.
- 3.1.30 Ditch **47** crossed the trench on a north-south alignment. It corresponded with a mapped boundary. It was 2m wide and 0.33m deep with shallow sides (steeper to the east) and a broad concave base (Sec. 20, Fig 11). Its fill (48) was a mid/dark brown sandy silt – probably ploughed in topsoil – and contained modern material and a sherd of Early Roman pottery.
- 3.1.31 An electrical service running from the side of The Chantry and across the pipeline meant only topsoil was stripped for approximately 15m of this part of the easement.

Between The Chantry and The Lodge (Figure 7A)
(TG 49654 03094)

- 3.1.32 Pit/treethrow **45** was a sub-circular, almost amorphous feature 1.0m in diameter. It had steep sides with a distinct break of slope to a near-flat base. Its southern part was excavated, but its northern extents were unclear near the trench baulk where movement within the natural sands was evident (see Plate 5). It was filled by a mid-greyish brown silty sand (46) which contained a flint flake and a sherd of Neolithic pottery.

East of The Lodge (Figure 7B)
(TG 49765 03084 to TG 49843 03080)

- 3.1.33 Immediately east of The Lodge there was a 40m length where topsoil was not stripped due to the presence of overhead cables.

- 3.1.34 The remaining section along the east end of New Road was crossed by three roughly parallel crop marks of late prehistoric to Roman date (NHER 45215), and one undated (NHER 45215) – none of these cropmarks were positively identified as features during the excavation.
- 3.1.35 Despite relatively deep soils (0.45m thick topsoil and 0.3m thick subsoil), some obvious tractor wheel ruts had cut into the natural sand at the western end of this section.
- 3.1.36 A possible ditch (**43**) was recorded, aligned north-west to south-east, parallel to but 7m from the nearest purported late prehistoric/Roman crop mark. It had one clear edge, but was diffuse on its southwestern side. The opposite side was shallow, breaking gradually to a concave base at 0.28m depth. Its fill (44) was a mixed mid/dark brown silty sand. This may have been a natural variation of the sand/silt geology.
- 3.1.37 Pit **35** was sub-circular and 0.5m in diameter. It was only 0.09m deep with shallow sides and a concave base. Although its sides were somewhat diffuse, it had a reasonably symmetrical appearance and was more convincing as a deliberately dug feature than the majority of similar sized features to the west.
- 3.1.38 There was a cluster of undated probable treethrows or small pits (**29**, **33**, **37**, **39**, **41**) around TG 49832 03080, immediately west of a possible ditch (**27**). All the pits were shallow, irregular and interpreted as tree throws (or a hedgeline if ditch **27** served as a boundary) or other natural disturbance. In all cases the fills were mid-brown fine sandy silts.
- 3.1.39 Pit/treethrow **31** (fill 32) was clearly defined on its northern (excavated) side, sub-oval in plan, but indistinct on the southern side. It was 0.5m wide, around 0.9m long and 0.16m deep with shallow sides and a concave base.
- 3.1.40 Pit/treethrow **37** (fill 38) was sub-oval in plan but indistinct on its northern side. The southern portion was excavated. It was around 1.3m long, 0.6m wide and 0.13m deep.
- 3.1.41 Pit/treethrows **39** and **41** (fills 40 and 42 respectively) were immediately south of pit **37**. They were circular in plan (more distinctly visible than those nearby) and 0.55m and 0.45m in diameter, and 0.11 and 0.16m deep respectively. Both had shallow sides and a concave base.
- 3.1.42 Pit/Treethrow **33** (fill 34) was around 3m in length, aligned north-south, and 0.7m wide. The southern 1m was excavated. It was 0.2m deep with shallow sides and a concave profile.
- 3.1.43 Pit/treethrow **29** (fill 30) was against the northern baulk, its southern side sub-circular in plan. It was 0.75m wide and at least 0.8m up to the baulk. It was 0.25m deep with shallow sides and a concave base.
- 3.1.44 Ditch **27** bounded the east of this cluster. It was aligned north-south, though slightly irregular in plan and less distinctly visible to the north on its eastern side. It was 1.2m wide and 0.2m deep with a shallow sided concave profile (Sec. 8, Fig. 11). Its fill (28) was a mottled mid-grey brown sandy silt. This probable ditch did not correspond to any crop marks and although it did share the same alignment as mapped historic boundaries it could not be directly correlated with any mapped feature.
- 3.1.45 Pit/tree throw **25** was 4m east of ditch **27**, against the northern baulk. It was sub-oval, 1.45m wide and at least 1.4m long (Sec. 7, Fig 11). It was 0.17m deep with very shallow sides. Its fill (26) was mid-grey brown sandy silt.

**North of Ring Ditch NHER 45209 (Figure 8)
(TG 49881 03076)**

- 3.1.46 An undated NMP ditch crop mark (NHER 45215) aligned north-west to south-east crossed this area. It also appeared to cross that of a ring ditch (NHER 45209), presumed to be a ploughed out Early Bronze Age barrow, around 10m south of the trench.
- 3.1.47 A cluster of irregular pits/treethrows were recorded here. Following the recovery of a complete Early Bronze Age Beaker from a feature in the main line of the trench (in pit **20**), the northern half of the easement was also stripped, uncovering three similar features, but no further finds were recovered. Where possible these features were 100% excavated.
- 3.1.48 Pits/treethrows **97**, **99** and **101** were located in the northern half of the trench. The remaining features in the group (Pit **20**, Ditch **14** Pit/treethrow **21** and Pit **15**) were in the southern half of the trench.
- 3.1.49 Pit/treethrow **97** was sub-circular or pear-shaped in plan, 1m long and 0.6m wide and 0.25m deep with shallow sides and a concave base. Its fill (98) was mid-brown sandy silt.
- 3.1.50 Pit/treethrow **99** was amorphous in plan, 1.8m long, 1.0m wide and 0.2m deep with very shallow sides (Plate 6). Its fill (100) was dark brown sandy silt.
- 3.1.51 Pit/treethrow **101** lay partly under the northern baulk. It was at least 1.1m long and 0.85m wide. It was 0.3m deep with moderately steep sides and a concave, slightly irregular base.
- 3.1.52 Pit **20** was the western most of the group. It was sub-oval in plan, 1.2m long (north-west to south-east) and 0.8m wide. It was 0.3m deep with moderate to steep sides and a flat regular base. Its fill (19) was a mid brown silty sand. South-east of its mid point it contained a complete Beaker (SF 1; Appendix C.1). This vessel was positioned almost up-right, tilted slightly to the north-west, resting on the base of the cut with only a very small part of the rim damaged on initial discovery (Figure 8; Plates 8 and 9). Charcoal from the pit's fill has been radiocarbon dated to 2290-2120 cal BC (83.5% confidence, see Appendix D.3). This feature is considered most likely to represent either a pit into which the Beaker vessel was deliberately deposited or a grave, in which any bone has not been preserved with the Beaker representing an accessory vessel/grave good (see Discussion, Section 4).
- 3.1.53 Just to the east of Pit **20**, a linear feature was exposed, running from the southern edge of the trench on a south east to north west alignment for c. 2m before terminating. This feature might correspond to cropmark ditch expected to pass through the area on this alignment (mapped 4m to the south-west). This feature was 1m wide and 0.15m deep with shallow sides. Its single fill, 13, was a mid greyish brown silty sand, which contained frequent flecks of charcoal and ash as well as lumps/sheets of charcoal representing the burnt surface of a log or plank (see Sec. 2, Fig 8 and Plate 10). The charcoal has been identified as predominantly oak, with some lime, and a sample of oak sapwood produced a radiocarbon date of 2200-2020 cal BC (95% confidence, see Appendix D.3).
- 3.1.54 East of this was a cluster of pit/treethrow features. Pit/treethrow **17** was oblong, 2.7m (west to east) long and 1.0m wide. It was 0.29m deep with steep sides and a flat base along its length (Sec. 5, Fig 11). The second half was also excavated. Despite being 100% excavated, no finds were produced from this feature.

- 3.1.55 Pit/treethrow **21** was, on balance, more probably a tree-throw, having an amorphous shape in plan and an unclear base, with a possible root hole extending northwards. It was only partially exposed against the southern trench baulk, but was at least 1.2m long and 0.9m wide. It was 0.42m deep with steep moderately steep/irregular sides. Its main fill (22) was dark greyish brown silty sand. Against its western side was fill 24, mid brown sand with a minor silty component, possibly disturbed natural sand.
- 3.1.56 Pit **15** was sub-circular in plan, 0.5m in diameter. It was 0.16m deep with shallow sides curving to an almost flat base (Sec. 4, Fig 11). Its fill (16) was a dark reddish brown silty sand.

***East end of Site 1 / west of A143 Beccles Road (Figure 8)
(TG 49907 03074 to TG 49926 03066)***

- 3.1.57 At the extreme eastern end of Site 1 were three parallel linear ditch-like features, aligned north-south.
- 3.1.58 Ditch **8** was 1m wide and 0.3-0.4m deep with a shallow-sided V-shaped profile. Its fill (7) was dark greyish brown silty sand. It lay in line with an old field boundary mapped south of Beccles Road on the first edition Ordnance Survey map, although no boundary is mapped here, north of Beccles Road. It is likely this represent a minor modern boundary, pre-dating Beccles Road (as most modern local field boundaries appear to).
- 3.1.59 Features **10** and **12** were 1.6m apart. They were 0.4m and 0.55m wide respectively and 0.1-0.2m deep. They appear to represent wheel ruts from a track, possibly associated with ditch **8** and probably pre-dating Beccles Road. Both their fills (9 and 11 respectively) were dark greyish brown – possibly old topsoil.

3.2 Finds Summary (Site 1)

- 3.2.1 Site 1 produced the only finds from the project. These included 11 struck flints, and 636g of pottery dating from the prehistoric to modern periods (of which 243g was a single, complete Beaker, SF1). No bone was recovered from any features and this is, at least partly, thought to be a result of the sandy, acidic geology of the site. A small amount (5 pieces, 112g) of ceramic building material was retained from modern features.

3.3 Environmental Summary (Site 1)

- 3.3.1 Nine environmental samples were taken, but produced no charred plant remains. Only charcoal was recovered. Three samples were identifiable and were sent for radiocarbon dating.

3.4 Site 2: Land off Gorleston Lane, Bradwell

Soils

- 3.4.1 Typically, topsoil was 0.40m thick and subsoil was 0.30m thick throughout the field.

Topsoil strip and Trial Holes (1st - 8th May)

- 3.4.2 Initial stripping of top soil revealed mid-brown sandy sub-soil only, with no features visible. No archaeology was observed.
- 3.4.3 Three trial holes were monitored. These were excavated to locate existing services immediately on the north side of Gorleston Lane. Only modern disturbed back-fills of the existing service trench were observed. No archaeological finds, features or deposits were identified.

Bore pit (22nd May 2017)

- 3.4.4 A pit 4m x 3m x 2m deep, for pipe drilling was excavated and monitored. No archaeological remains were identified.

Bore pit and trench (22nd - 24th May 2017)

- 3.4.5 The bore pit was enlarged by 0.5m to allow pipe welding equipment access. Excavation of the trench for pipe placement was also monitored (Plate 11). Again, no archaeological remains were identified.

3.5 Site 3: Magdelene Recreation Ground, Bradwell

Crop marks

- 3.5.1 Of the medieval to post-medieval crop mark complex mapped in the field, three banks would have crossed the trench in the west and middle of its length (based on RAF photos taken in 1953 and 1954; NHER 45056).

Preservation

- 3.5.2 The excavation revealed clear evidence that the area had been landscaped to produce a flat playing field. In the west of the field only a thin covering of turf and topsoil (209), 0.2m thick, was present, directly overlying a clean natural sand (Plate 12), with wheel ruts (200). It was clear that material taken from this western part of the field had been used to bring up the level in the east of the field, where an old subsoil (210) and topsoil (207) were sealed by a thin layer of mixed sand and topsoil overburden (208), before being covered with the modern topsoil and turf layer (209). Soil profiles along the field are given in Table 4.
- 3.5.3 The presence of deeper soils and the need to keep spoil within the 8m width allocated meant that for much of the eastern half of the stripped area it was only possible to machine a narrow trench down to the top of the natural sand or gravel.
- 3.5.4 With fewer features than Site 1, this area is discussed in approximate chronological order of date of deposit.

Possible Features (Figures 9 & 10)

- 3.5.5 A number of possible pits, solution hollows or tree throws were excavated and recorded around the middle of the trench.
- 3.5.6 Feature **218** may have been a solution hollow. It was pear-shaped in plan and filled with reddish brown silty sand (219). It was 0.7m wide and 0.4m deep and produced no finds. This feature is likely to have been truncated by landscaping of the west of the field.
- 3.5.7 Features **202** and **204** were linear, but irregular, aligned roughly east to west (Plate 13). Feature **202** may have been a ditch, terminating and possibly truncating feature **204**. It was 0.6m wide and 0.3m deep with irregular sides. Feature **204** was 0.6m wide and 0.1m deep. Both may be natural and both were preserved below undisturbed soils. Both had mid brown silty sand fills (203 and 205 respectively).
- 3.5.8 Feature **216** was a second possible solution hollow 0.75m wide and 0.35m deep with asymmetric sides and an uncertain base. Fill 217 was mid brown silty sand.
- 3.5.9 At the eastern end of the trench, the gravel was interspersed with natural silt patches (214; Figure 10). Parts of these were excavated to confirm their nature.

Modern postholes (Figure 9)

- 3.5.10 A line of five, and to their east, a further two modern postholes paralleled the modern field boundary (matched by the trench) across the east of the area. These were shallow and truncated, so it is not clear if they truly (as it appears) respected the line of the crop mark bank or if this appearance was coincidental.

Gravel deposit (Figure 10)

- 3.5.11 A concentration of gravel (206) was noted on machining and recorded in section amongst the old subsoil (Plate 14). Its approximate extents were recorded in two baulk

sections so it was only very tentatively located, but appeared to be aligned parallel with (but 15m west of) the expected bank crop marks.

Modern boundary ditch (Figure 10)

- 3.5.12 At the very eastern end of this strip, a large boundary ditch (**211**) was excavated (Plate 15). This shared the alignment of the modern recreation ground boundary and footpath. It was shown on the 1883 Ordnance Survey Six Inch Map and early 20th century maps prior to the development of the recreation ground.
- 3.5.13 Ditch **211** was 3m wide at the surface and 1.05m deep. It had moderately steep sides funnelling down towards a concave base. It was filled by a small amount of initial silting (212; a dark brown silt 0.1m thick), which was sealed by a deliberate back-fill deposit of mid-brown sandy silt around 1m thick. No finds were recovered from this feature.

3.6 Finds and Environmental Summary (Site 3)

- 3.6.1 No finds were retained and no samples were taken from Site 3.

4 DISCUSSION AND CONCLUSIONS

4.1 Site 1: Land off New Road, Belton

Natural features

- 4.1.1 Many of the features excavated and recorded along the pipeline easement appeared to be natural. Those with more distinct edges may have been tree throw features, but other natural processes were probably also occurring in the soft sand substrate.
- 4.1.2 In the narrow corridor of the trench it is difficult to place these natural features in any kind of context. A series of such features (**49**, **53**, **55** **57**) adjacent to the modern ditch (**47**) opposite Acre Meadow might represent rooting along an associated hedgerow. Similarly a cluster was associated with possible ditch **27**. None of the natural features had finds in sufficient quantities sufficient to suggest deliberate deposition and the potential for both residual and intrusive material to have been recovered from these features is considered high.

Neolithic

- 4.1.3 A small assemblage (nine sherds) of Neolithic pottery was recovered from the site, whilst a large proportion of the small flint assemblage comprised blade-based material consistent with a Mesolithic or earlier Neolithic date.
- 4.1.4 The only feature which can be fairly confidently attributed to this period is probable treethrow **89**. The pottery from this poorly defined feature included two refitting rim sherds which appear to derive from an earlier Neolithic Mildenhall type/plain bowl vessel (see Appendix C.2). The three flints from this feature are entirely consistent with an earlier Neolithic date, including a flake from a polished flint axehead and a utilised blade (see Appendix C.3). The recovery of Neolithic material from tree throw features in the region is not unusual, although a crude distinction can be drawn between features containing finds-rich, midden-like, deposits (e.g. Bishop and Proctor 2011; Evans et al 1999) and those (perhaps more comparable to treethrow **89**) which contain smaller assemblages which are perhaps more likely to have been incidentally incorporated into tree throw features from surface scatters (see Lamdin-Whymark 2008, 73-100). In this context, it is notable that small and abraded residual sherds of Neolithic pottery, presumably ultimately derived from surface scatters/accumulations, were recovered from three ditches to the west of tree throw **89** (**81**, **51** and **59**), and probably relate to the same broad episode of activity/settlement in this area of the site.

Early Bronze Age

Beaker sherd

- 4.1.5 A single Beaker sherd was found in a possible tree throw towards the western end of Site 1.

Beaker pit and associated features

- 4.1.6 The recovery of a complete Beaker vessel (SF1) it perhaps the most significant result of the excavation. It was recovered from a somewhat irregular oblong pit (**20**) which, although not dissimilar from many of the pit/treethrows recorded across the site is thought most likely to represent a deliberately cut feature. Given the acidic character of the sands through which the feature was excavated, it is possible that this feature represents a grave in which the no trace of bone belonging to any inhumation burial has survived. The size and morphology of the cut is consistent with graves containing

Beaker/Early Bronze Age crouched inhumations, whilst the position of the Beaker vessel, toward one end and slightly off the centre line of the cut is also characteristic of such burials, where vessels are often placed adjacent to the feet or head (e.g. Garwood 2011, 404-5, fig 15.9). Despite careful excavation, no traces of bone or soil staining/mineralisation indicating the presence of a burial were encountered. This is, however, a common occurrence on the sandier and more acidic geologies of the region, and at several barrow and ring ditches probable Early Bronze Age graves, with no traces of bones or 'body-stains', have been identified instead on the basis of cut morphology, and /or the presence of coffin/bier stains and grave goods (e.g. Ashwin and Bates 2000; Wymer 1986).

- 4.1.7 This suggestion notwithstanding, it remain equally plausible that the Beaker was deposited as part of non-funary related activity. As discussed by Percival (Appendix C.1), similar occurrences of deposition of Beakers are known in Norfolk, such as at Woodgate Farm, Aylsham, where a Beaker was placed in a large tree throw (Gilmour 2014; NHER ENF132710), and at Eton Heath, Norwich, where a complete vessel was found in a natural solution shaft (Wainwright 1973; NHER 9544). These examples contrast sharply with most Beaker pit deposits in the region, where the pottery is typically made up of sherds belonging to multiple vessels, deposited alongside lithic artefacts and other material as part of finds rich 'midden like' deposits (see Garrow 2006). In this context, it seems likely that the deposition of complete, unaccompanied vessels, such as may be represented here, was explicitly ritualised or formalised to an extent otherwise rarely documented outside of the sphere of funerary activity.
- 4.1.8 Radiocarbon dating of short life charcoal recovered from nearby ditch/elongated pit **14** returned a very slightly earlier date range than that from pit **20** (Appendix D.3), although both dates are statistically consistent and could therefore represent the same episode of activity (X^2 test: 'T'=1.6; 'T'(5%)=1.6; df=1; Ward and Wilson 1978). The narrow exposure allowed by the trench only allows speculation that the activity represented by both features **20** and **14** may have been related to the ring ditch located just to the south (NHER 45209). Although it could be argued that feature **14** is likely to correspond to the linear cropmark which crosses the pipeline some 5m to the south west (NHER 45215; see Figure 8), it should be emphasised that linear boundaries of this date (Early Bronze Age) are virtually unprecedented in the region and the limited exposure of the feature should encourage caution in its interpretation. The charcoal within this feature appeared to represent the surface of a charred log or plank (see Fig. 8; Plate 10), presumably deliberately deposited into this feature.
- 4.1.9 Seven other pits/treethrows of varying sizes and shapes lay within 15m of these features. They were all discrete, shallow and produced no finds.

Middle Bronze Age

Ditch 76

- 4.1.10 The radiocarbon date of 1300-1110 cal BC (94.2% confidence) obtained from short life charcoal from the basal fill of ditch **76**, together with the recovery of Late Bronze Age/Early Iron Age pottery from its upper fill, provides a secure Middle Bronze Age (MBA) date for this feature. The excavated ditch appears to correspond to a west-north-west to east-south-east aligned cropmark (recorded under NHER 45261; see Figure 1) which is recorded as extending some 170m to the east of the excavated ditch, but cannot be traced on the other side of New Road, to the north/west. This feature is on a broadly similar alignment to cropmark ditches attributed to the post-medieval period in the area (although it appears to be distinguished by having a more sinuous/curving

form), whilst it is on a markedly different orientation to the north-east to south-west aligned cropmarks attributed to the Iron Age and/or Roman periods (i.e. NHER 45215; see Figure 1). Although it is difficult to confidently identify any other elements of the cropmark complex which may relate to ditch **76**, there are other undated cropmarks (also recorded under NHER 45261) which share the alignment of this feature and may represent parts of a contemporary field system or set of boundaries.

- 4.1.11 The identification of a securely dated MBA ditch, which can with some confidence be related to a cropmark feature, represents a useful addition to the evidence for Middle Bronze Age field systems/enclosures in this part of eastern Norfolk. Understandings of the prehistoric landscapes of the Broads have been transformed in the last decade by the results of developer funded investigations and the National Mapping Programme, with a recognition that MBA fieldsystems and enclosures may be widely distributed across the interfluvies of the Broads, bringing the area into line with other parts of southern England where extensive MBA field systems are increasingly well documented (Gilmour et al 2014; cf. Yates 2007). Perhaps most relevant here are the results of evaluation fieldwork off Sidegate Road, Hopton-on-Sea, some 3km south-west of the New Road excavations, which identified a series of Bronze Age enclosure/boundary ditches (one of which contained a hoard of MBA metalwork), and it is notable that at least some of these share a broadly similar east to west or east-south-east to west-north-west alignment as the ditch discussed here (Adams et al 2011; see also Gilmour et al 2014, 149, fig 6).
- 4.1.12 One notable feature of ditch **76** is the high proportion of heathland taxa (*Leguminosae* and *Ericaceae*) identified among the charcoal from the lower fill of the ditch, contrasting sharply with the charcoal from Early Bronze Age/Beaker features discussed above, which is restricted to species characteristic of deciduous woodland (i.e. oak, lime, hazel and alder) (Appendix D.2). Taken at face value, this suggests that the development of heathland, at least locally, was taking place at some point in the Early to Middle Bronze Age. In this context it is significant that Gilmour and colleagues have demonstrated that MBA enclosures and field systems in the area are invariably located in areas mapped as common (heathland) on Faden's 1797 county map, and have tentatively raised the possibility that the origins of these heaths might ultimately lie in widespread clearance and increasingly intensive exploitation of these areas during the MBA (Gilmour et al 2014, 151-2).
- 4.1.13 Also of some relevance to wider research questions is the presence of Late Bronze Age/Early Iron Age pottery from the upper fill of the ditch. This implies that this feature may have remained extant/in use as a functioning boundary for several centuries following its construction, and this evidence could contribute to any future assessment of the longevity and chronology of MBA field systems and boundaries in the region.

Roman to Early Saxon

- 4.1.14 Earlier Roman sherds were found in small quantities across the site, all recovered as residual finds. This is not unexpected given the extensive presumed Late Iron Age/Early Roman field systems extending north-east and south from the site. The absence of detectable contemporary features corresponding to this cropmark evidence is discussed below (see crop mark discussion below).
- 4.1.15 The single Early Saxon sherd is a rarer find and would suggest some form of Early Saxon activity in close proximity to the find spot (near the centre of Site 1, opposite The Chantry). It did, however, come from a modern deposit and the possibility remains that it could have been transported some distance from its original depositional context.

Post-Medieval

- 4.1.16 Elements of the post-medieval landscape known from historic maps were detected, as well as an additional feature (Ditches **71/73** opposite Cherry Cottage) possibly marking the parish boundary between Belton with Browston and Bradwell.

Crop mark investigation

- 4.1.17 Few of the expected crop marks were successfully identified in Site 1. Ditch **76** was the only archaeological feature to correspond well with a crop mark, the others representing modern ditched or hedged field divisions. Ditch **76** showed up clearly at the machined level, below sandy subsoil on first exposure and remained visible following weathering and, given the early date (MBA) of this feature, this strongly suggests other features should have been readily identifiable if they had been present.
- 4.1.18 It is possible that activity associated with the construction/maintenance of New Road has impacted on the archaeological remains, and hence the pipe trench was positioned in the place with the lowest potential for exploring the crop marks. Ploughing in the field may also have truncated or removed such features. Many of the crop marks plotted are derived from photographs taken in the 1940s, 1950s and 1970s (e.g. NHER 45261), allowing up to seven decades of disturbance.

4.2 Site 2: Gorleston Lane, Bradwell

Crop mark investigation

- 4.2.1 The known crop marks from the field are in the form of banks, most probably completely removed by ploughing in recent years. A similar situation occurred on investigation of banked features to the south-east (see NHER 45056; see Figure 2). Any such damage by ploughing may have been compounded by disturbance associated with the construction of the modern concrete farm road surface in this area and the adjacent electrical cables.

Finds

- 4.2.2 Although fieldwalking and metal detecting had produced finds of many periods from this field (north of Gorleston Lane) as well as to the south, the monitoring of removal of top soil by machine was unlikely to produce comparable finds and none were recovered during the works. Equally, no archaeological features or deposits which could have been associated with these previously recorded finds were encountered

4.3 Site 3: Magdalene Recreation Ground, Bradwell

Crop mark investigation

- 4.3.1 As with Sites 1 and 2, and previous sites further south-east (part of NHER 45056), a series of banks, visible as soil marks on aerial photographs taken in the 1950s and 1960s, were not identified. While at Sites 1 and 2 this was probably due to damage caused by ploughing, at Site 3 substantial landscaping had occurred which would have completely removed the larger western bank. To the east, a pair of smaller banks are mapped crossing the eastern part of the site, which had been built up rather than truncated and here it could be anticipated they would be preserved but, again, it was not possible to confidently identify any features. The only indication of any deposits relating to the banks in this area was a concentration of gravel/shingle in the subsoil, further west than the mapped location of the banks, but there were no finds or associated features to place this deposit in context.

4.4 Conclusions: Significance and publication

- 4.4.1 In terms of the original research aims and objectives of the project (see Section 2), it has proved very difficult to relate the results of the fieldwork to the extensive cropmark evidence from the area, and it is striking that only one excavated pre-modern feature from Site 1 (MBA ditch **76**) could be confidently associated with a mapped cropmark feature.
- 4.4.2 With a complete dearth of archaeological remains from Sites 2 and 3, the most significant results of the fieldwork is the evidence for prehistoric activity along Site 1, dating to the Early Neolithic, Early Bronze Age and Middle Bronze Age. At a local/regional scale the secure dating of ditch **76** to the Middle Bronze Age is significant in adding to the growing number of enclosures and boundaries of this period identified across eastern Norfolk, whilst the Early Bronze Age activity, notably the recovery of the complete Beaker vessel from pit **20**, is of regional significance in terms of providing evidence relevant to discussions of depositional practice during this period.
- 4.4.3 The complete Beaker has been fully described and illustrated here (see Percival in Appendix C.1; Figure 12 and Plate 9). It is proposed to include it in the Norfolk Archaeology roundup.



APPENDIX A. CONTEXT INVENTORY

Context	Cut number	Site	Category	Type	Function	Length (m) (cuts)	Breadth (m) (cuts)	Depth (m)	Colour (fills)	Composition (fills)
1		Site 1	layer	natural/subsoil	test pit					
2		Site 1	layer	natural/subsoil	test pit					
3		Site 1	layer	natural/subsoil	test pit					
4		Site 1	layer	natural/subsoil	test pit					
5	5	Site 1	cut	natural	natural variation		2.7	0.5		
6	5	Site 1	fill	natural	natural variation		2.7	0.5	mid greyish brown	sandy silt
7	8	Site 1	fill	ditch			1	0.4	dark greyish brown	silty sand
8	8	Site 1	cut	ditch			1	0.4		
9	10	Site 1	fill	ditch			0.4	0.1	dark greyish brown	silty sand
10	10	Site 1	cut	ditch			0.4	0.1		
11	12	Site 1	fill	ditch			0.55	0.2	dark greyish brown	silty sand
12	12	Site 1	cut	ditch			0.55	0.2		
13	14	Site 1	fill	ditch			1	0.15	mid greyish brown	silty sand
14	14	Site 1	cut	ditch			1	0.15		
15	15	Site 1	cut	pit/treethrow	tree throw?	0.5	0.45	0.16		
16	15	Site 1	fill	pit/treethrow	tree throw?	0.5	0.45	0.16	dark reddish brown	sand
17	17	Site 1	cut	pit/treethrow	tree throw?	2.7	1	0.29		
18	17	Site 1	fill	pit/treethrow	tree throw?	2.7	1	0.29	dark yellowish brown	sand
19	20	Site 1	fill	pit	beaker pit	1.2	0.8	0.3	mid brown	silty sand
20	20	Site 1	cut	pit	beaker pit	1.2	0.8	0.3		
21	21	Site 1	cut	pit/treethrow	tree throw?		0.9	0.42		
22	21	Site 1	fill	pit/treethrow	tree throw?		0.9	0.42	dark greyish brown	sand
23	23	Site 1	cut	pit/treethrow	tree throw?	0.45	0.45	0.15		
24	23	Site 1	fill	pit/treethrow	tree throw?	0.45	0.45	0.15	mid yellowish brown	sand
25	25	Site 1	cut	pit/treethrow	tree throw?		1.45	0.17		
26	25	Site 1	fill	pit/treethrow	tree throw?		1.45	0.17	mid greyish brown	sand
27	27	Site 1	cut	ditch	boundary?		1.2	0.2		
28	27	Site 1	fill	ditch	boundary?		1.2	0.2	mid greyish brown	sand



Context	Cut number	Site	Category	Type	Function	Length (m) (cuts)	Breadth (m) (cuts)	Depth (m)	Colour (fills)	Composition (fills)
29	29	Site 1	cut	pit/tree throw	associated with boundary?	0.8	0.7	0.25		
30	30	Site 1	fill	pit/tree throw		0.8	0.7	0.25	mid brown	silty sand
31	31	Site 1	cut	pit/tree throw	associated with boundary?	0.9	0.52	0.16		
32	31	Site 1	fill	pit/tree throw		0.9	0.52	0.16	dark orangey brown	silty sand
33	33	Site 1	cut	pit/tree throw	associated with boundary?	3	0.7	0.2		
34	33	Site 1	fill	pit/tree throw		3	0.7	0.2	dark greyish brown	fine sand
35	35	Site 1	cut	pit/tree throw		0.5	0.5	0.09		
36	35	Site 1	fill	pit/tree throw		0.5	0.5	0.09	dark greyish brown	fine sand
37	37	Site 1	cut	pit/tree throw	associated with boundary?	1.33	0.6	0.13		
38	37	Site 1	fill	pit/tree throw		1.33	0.6	0.13	light greyish brown	silty sand
39	39	Site 1	cut	pit/tree throw	associated with boundary?	0.55	0.5	0.11		
40	39	Site 1	fill	pit/tree throw		0.55	0.5	0.11	light brown	silty sand
41	41	Site 1	cut	pit/tree throw	associated with boundary?	0.45	0.55	0.16		
42	41	Site 1	fill	pit/tree throw		0.45	0.55	0.16	mid brown	silty sand
43	43	Site 1	cut	ditch/hedgeline	boundary?		0.7	0.28		
44	43	Site 1	fill	ditch/hedgeline			0.7	0.28	mixed mid and dark brown	silty sand
45	45	Site 1	cut	pit/treethrow	tree throw?		1	0.55		
46	45	Site 1	fill	pit/treethrow	tree throw?		1	0.55	dark brownish grey	silty sand
47	47	Site 1	cut	ditch	C19th boundary	3.7	2	0.33		
48	47	Site 1	fill	ditch	C19th/20th backfill	3.7	2	0.33	mid brown	silty sand
49	48	Site 1	cut	disturbance	modern					
50	49	Site 1	fill	disturbance	modern				dark greyish brown	silty sand
51	51	Site 1	cut	ditch/service trench?	modern	4	0.35	0.33		
52	51	Site 1	fill	ditch/service trench?	modern	4	0.35	0.33	dark brown	silty sand
53	53	Site 1	cut	posthole/modern disturbance	modern	0.35	0.35	0.09		
54	53	Site 1	fill	posthole/modern disturbance	modern	0.35	0.35	0.09	dark brown	silty sand
55	55	Site 1	cut	pit		0.8	0.6	0.17		
56	55	Site 1	fill	pit		0.8	0.6	0.17	mid yellow brown	sand
57	57	Site 1	cut	pit		0.6	0.45	0.07		



Context	Cut number	Site	Category	Type	Function	Length (m) (cuts)	Breadth (m) (cuts)	Depth (m)	Colour (fills)	Composition (fills)
58	57	Site 1	fill	pit		0.6	0.45	0.07	mid yellowish brown	sand
59	59	Site 1	cut	natural	treethrow		0.66	0.16		
60	59	Site 1	fill	natural	treethrow		0.66	0.16	mid yellowish brown	sand
61	61	Site 1	cut	ditch	boundary		1	0.36		
62	61	Site 1	fill	ditch	boundary		1	0.36	dark yellowish brown	sand
63	63	Site 1	cut	pit/treethrow	possible tree throw	0.8	0.3	0.14		
64	63	Site 1	fill	pit/treethrow	possible tree throw	0.8	0.3	0.14	mid reddish brown	silt
65	65	Site 1	cut	pit/treethrow	possible tree throw	2.2	0.9	0.25		
66	65	Site 1	fill	pit/treethrow	possible tree throw	2.2	0.9	0.25	mid brown	sandy silt
67	67	Site 1	cut	natural	treethrow	2.5	1.6	0.25		
68	67	Site 1	fill	natural	treethrow	2.5	1.6	0.25	dark brown	silt
69	69	Site 1	cut	ditch			0.6	0.2		
70	69	Site 1	fill	ditch			0.6	0.2	mid to dark brown	silt
71	71	Site 1	cut	ditch	C19th boundary		1	0.4		
72	71	Site 1	fill	ditch	C19th boundary		1	0.4	mid brown	sandy silt
73	73	Site 1	cut	ditch	field ditch					
74	73	Site 1	fill	ditch	field ditch				mid brown	snady silt
75	73	Site 1	fill	ditch	field ditch				dark greyish brown	silty sand
76	76	Site 1	cut	ditch			1.1	0.5		
77	76	Site 1	fill	ditch					light brown	sandy silt
78	76	Site 1	fill	ditch					mid brown	silt
79	79	Site 1	cut	ditch	boundary		1.3	0.25		
80	79	Site 1	fill	ditch	boundary		1.3	0.25	dark brown	silt
81	81	Site 1	cut	ditch	possible boundary	3.7	0.85	0.27		
82	81	Site 1	fill	ditch	possible boundary	3.7	0.85	0.27	mid orangey brown	sandy silt
83	83	Site 1	cut	pit		1.28	1.2	0.41		
84	83	Site 1	fill	pit				0.23	v dark brown, mottled with light brownish yellow	silty sand
85	83	Site 1	fill	pit				0.15	light greyish brown, with grey mottling	silty sand



Context	Cut number	Site	Category	Type	Function	Length (m) (cuts)	Breadth (m) (cuts)	Depth (m)	Colour (fills)	Composition (fills)
86	83	Site 1	fill	pit				0.29	v dark brown	sandy silt
87	87	Site 1	cut	pit		0.8	0.45	0.09		
88	87	Site 1	fill	pit		0.8	0.45	0.09	dark yellowish brown	fine sand
89	89	Site 1	cut	natural	treethrow	1.6	1.5	0.55		
90	89	Site 1	fill	natural	treethrow	1.6	1.5	0.55	mid yellowish brown	fine sand
91	91	Site 1	cut	pit			1.6	0.2		
92	91	Site 1	fill	pit			1.6	0.2	v dark grey mottled with brown	silty sand
93	93	Site 1	cut	ditch	boundary	2.2	1.2	0.26		
94	93	Site 1	fill	ditch	boundary	2.2	1.2	0.26	dark yellowish brown	fine sand
95	95	Site 1	cut	natural	treethrow?	2.2	0.9	0.24		
96	95	Site 1	fill	natural	treethrow?	2.2	0.9	0.24	mid yellowish brown	fine sand
97	97	Site 1	cut	pit/treethrow	treethrow?	1	0.6	0.25		
98	97	Site 1	fill	pit/treethrow	treethrow?	1	0.6	0.25	mid brown	sandy silt
99	99	Site 1	cut	pit/treethrow	treethrow?	1.8	1	0.2		
100	99	Site 1	fill	pit/treethrow	treethrow?	1.8	1	0.2	dark brown	sandy silt
101	101	Site 1	cut	pit/treethrow	treethrow?		0.85	0.29		
102	101	Site 1	fill	pit/treethrow	treethrow?		0.85	0.29	mid brown	sandy silt
103		Site 1	layer	natural/subsoil						
104	104	Site 1	cut	ditch	boundary	2.7	1	0.13		
105	104	Site 1	fill	ditch	boundary	2.7	1	0.13	light brown	silty sand
106	106	Site 1	cut	ditch	boundary	2.1	1.3	0.28		
107	106	Site 1	fill	ditch	boundary	2.1	1.3	0.28	mid greyish brown	sand
200	200	Site 3	cut	natural	wheel rut?	5	0.3	0.05		
201	200	Site 3	fill	natural	wheel rut?					
202	202	Site 3	cut	natural?			0.6	0.3		
203	203	Site 3	fill	natural?						
204	204	Site 3	cut	natural?			0.6	0.1		
205	204	Site 3	fill	natural?						
206		Site 3	layer	surface?	surface?					



Context	Cut number	Site	Category	Type	Function
207		Site 3	layer	soil	old buried top soil
208		Site 3	layer	overburden	sand overburden
209		Site 3	layer	soil	topsoil/turf
210		Site 3	layer	soil	old buried subsoil
211	211	Site 3	cut	ditch	19th century boundary ditch
212	211	Site 3	fill	ditch	19th century boundary ditch, silting
213	211	Site 3	fill	ditch	19th century boundary ditch, backfill
214	214	Site 3	cut	natural	natural silt
215	214	Site 3	fill	natural	
216	216	Site 3	cut	natural	solution hollow
217	216	Site 3	fill	natural?	solution hollow
218	218	Site 3	cut	natural	solution hollow
219	218	Site 3	fill	natural	solution hollow

Length (m) (cuts)	Breadth (m) (cuts)	Depth (m)	Colour (fills)	Composition (fills)
3		1.05		
0.75		0.35		
0.7		0.4		

APPENDIX B. SOIL PROFILES AND GEOLOGY

B.1 Site 1: Land off New Road, Belton (ENF141721)

Easting	Northing	Topsoil	Subsoil	Subsoil Description	Geology
649016	303197	0.4	0		Sand
649052	303188	0.3	0		Gravel
649101	303176	0.4	0		Sand
649143	303166	0.4	0.2	Dark brown/red sandy silt	Sand
649176	303158	0.4	0.2	Dark brown/red sandy silt	Sand
649230	303146	0.45	0		Gravel and sand
649278	303134	0.45	0		Gravel and sand
649309	303126	0.4	0		Silts, sands & gravel
649365	303112	0.4	0.3	Mid brown silt	Sand
649397	303109	0.45	0.25	Mid brown silt	Sand, occ. gravel
649455	303106	0.4	0.35	Dark brown silt	Silty sand, freq gravel
649504	303103	0.4	0.2	Mid brown sandy silt	Gravel with silts
649553	303099	0.45	0.2	Mid brown sandy silt	Gravel with silts
649593	303096	0.4	0.25	Mid brown sandy silt	Sand, freq gravel
649626	303093	0.4	0.25	Mid brown sandy silt	Silty sand
649657	303091	0.4	0		Sand
649701	303088	0.4	0.25	Mid brown sandy silt	Sand
649726	303086	0.4	0.2	Mid brown sandy silt	Sand
649769	303082	0.45	0.3	Mid brown sandy silt	Sand
649828	303078	0.35	0.25	Mid brown sandy silt	Sand
649916	303073	0.45	0.2	Mixed silty sand	Sand

Table 3: Site 1 Soil profiles

B.2 Site 3: Magdalene Recreation Ground

Easting	Northing	Topsoil (209)	Overburden (208)	Old Topsoil (207)	Subsoil (210)	Geology
651348	303072	0.3	0.2	0	0Sand	
651371	303079	0.2	0.05	0	0Sand	
651371	303079	0.2	0.05	0	0Sand	
651422	303074	0.3	0.05	0	0Sand	
651454	303068	0.3	0.15	0	0.15Sand	
651469	303062	0.3	0.2	0	0.2Sand	
651487	303060	0.3	0.2	0.2	0.15Gravel	
651504	303057	0.5	0.2	0.1	0.15Gravel	
651526	303052	0.2	0.15	0.2	0.15Gravel	
651536	303051	0.3	0.05	0.25	0.2Gravel and silt	
651556	303047	0.4	0.05	0.3	0.15Gravel and silt	
651574	303045	0.4	0	0	0.2Gravel and sand	
651593	303039	0.3	0	0	0.2Gravel and sand	

Table 4: Site 3 Soil profiles

APPENDIX C. FINDS REPORTS

C.1 Beaker Pot (Site 1)

By Sarah Percival

- C.1.1 A single virtually complete later Neolithic/early Bronze Age Beaker was recovered from pit **20** (context 19, SF1). The small Beaker weighs 243g and is 113mm high with a diameter at the rim of 95mm, at the base of 60mm and at the girth of 89mm. The Beaker is decorated all over the exterior with single fingernail impressions with the exception of an undecorated band 16mm wide around the girth. The fabric contains numerous fine crushed flint pieces within a sandy clay matrix. The vessel is finely made with finger-smoothed interior. Unintentional fingertip impressions on the lower interior mark where the base, formed from a disc of clay, joins the coil built body and a ridge at the interior girth indicates where the neck has been joined to the body of the vessel.
- C.1.2 The Beaker is of Needham's Long Necked (LN) form (Needham 2005, fig.9). Radiocarbon dated LN Beakers from burials with late decorative motifs such as rustication, stamped decoration and floating panels fall within a late phase of primary funerary use with seven examples dated to between 3520 and 3360 BP (equating to c. 2000-1500 cal BC) (Needham 2005, 196). Healy suggests a start date for non-funerary Beaker use from c.2490-2200 cal BC (95% probability) and notes a proclivity for LN Beakers and late decorative motifs amongst 'domestic' assemblages (Healy 2012, 158). Radiocarbon dating of charcoal from context 19 of 2290-2120 cal BC (83.5% confidence) is somewhat earlier than the dated examples from funerary contexts cited by Needham, but fits comfortably into Healy's date range for domestic assemblages including this type of Beaker.
- C.1.3 The use of fingertip rustication is very common amongst non-funerary Beaker in East Anglia (Gibson 1982; Bamford 1982). Whilst fingertip decorated Beaker often forms a significant component of fragmentary Beaker domestic assemblages from pits or spreads, the deposition of complete Beakers from non-funerary contexts is rare. At Woodgate Farm, Aylsham, a complete Short Necked Beaker with richly incised decoration was recovered from the fills of a tree-throw (one among over 100 empty tree throws; ENF 132710; Gilmour 2014) and a complete Beaker of East Anglian form was recovered from a solution shaft at Eton Heath, at a depth of 3.47m (Wainwright 1973, 15), both examples almost certainly representing acts of deliberate deposition.
- C.1.4 Elsewhere deposits containing significant and deliberate deposits of complete/semi-complete Beakers but no burial or cremation have been found at Biddenham Loop, Bedfordshire, and Lockington, Leicestershire (Allen 2008, 115; Woodward 2000, 52) where two semi-complete Beakers, one with fingertip decoration, were found in association with gold armlets dating to c.2100-1700 BC and a bronze dagger of c.2200-1900 BC. At Worlingham, Suffolk large sherds of finger-tip rusticated Beaker with radiocarbon dates spanning c.2400-1900 cal. BC were found alongside a bronze dagger (Pendleton and Gibson forthcoming).
- C.1.5 The increasing number of finds of rusticated Beaker in placed or structured deposits and occasionally in burials suggests that this type of Beaker was not always used in strictly utilitarian contexts (Pendleton and Gibson forthcoming). Taken together the evidence for non-funerary Beaker deposits of whole or semi-complete vessels sometimes associated with metal objects indicates that they were being deposited late in the period of Beaker use; perhaps some considerable time after Beaker was first used in both funerary and domestic contexts (Healy 2012).

C.2 Pottery (Site 1)

By Matt Brudenell with Katie Anderson, Carole Fletcher and Richard Mortimer

Introduction

- C.2.1 The excavations yielded a small assemblage of pottery comprising 21 sherds (393g) dating from the earlier Neolithic to the 19th century. All the pottery was recovered from Site 1. With the exception of the largely complete Early Bronze Age Beaker (243g) from pit/tree throw **20**, the remaining 20 sherds in the assemblage are mostly small and abraded. Many of these may be residual, with the group displaying a fairly low mean sherd weight of 7.5g.
- C.2.2 This report provides a quantified description of the all the pottery by period, except for the Beaker from pit/tree throw **20**, which, because of its significance, is reported on separately (See Appendix C.1). However, quantification of all pottery by context is given in Table 5 below.

Context	Cut	Feature Type	No. sherds	Weight (g)	Date	Comment
19	20	Pit/tree throw	1	243	Early Bronze Age	Largely complete Beaker
46	45	Pit/tree throw	1	2	Neolithic	Plain body sherd
48	47	Ditch	1	1	Early Roman	Abraded body fragment
50	49	Patch of linear disturbance (modern?)	1	3	Early Saxon	Handmade rim sherd
52	51	Patch of linear disturbance (modern?)	3	7	19th Century	
62	61	Ditch	1	14	Early Neolithic	Plain rim sherd
78	76	Ditch	2	20	Late Bronze Age to Early Iron Age	Includes a burnished shoulder sherd
82	81	Ditch	1	3	Neolithic	Plain body sherds, considered residual
90	89	Tree throw	6	85	Early Neolithic and 16th-19th century	Intrusive post-medieval sherd. Two refitting plain rim sherds
96	85	Pit/Tree throw	1	4	Early Bronze Age	Decorated Beaker sherd
103	-	Subsoil	1	4	Early Roman	Abraded body sherd
105	104	Ditch	2	7	Neolithic and Early Roman	Residual Neolithic sherd and Roman base fragment
Total			21	393g	-	

Table 5: Pottery quantification

Prehistoric pottery

- C.2.3 All the pottery has been fully recorded following the recommendations laid out by the Prehistoric Ceramic Research Group (2010). After a full inspection of the assemblage, fabric groups were devised on the basis of dominant inclusion types, their density and modal size. Sherds from all contexts were counted, weighed (to the nearest whole gram) and assigned to a fabric group. Sherd type was recorded, along with technology (wheel-made or handmade), evidence for surface treatment, decoration, and the presence of soot and/or residue. Rim and base forms were described using a codified system recorded in the catalogue, and were assigned vessel numbers. Where possible, rim and base diameters were measured, and surviving percentages noted. In cases

where a sherd or groups of refitting sherds retained portions of the rim and shoulder, the vessel was also categorised by form.

C.2.4 In total, the prehistoric pottery assemblage comprises 12 sherds (128g) belonging to four fabrics (Table 6).

Fabric Type	Fabric Group	No./Wt. (g) sherds	% fabric by Wt.	No./Wt. (g) burnished	% fabric burnished
F1	Flint	9/104	81.3	0/0	0
F2	Flint	1/3	2.3	0/0	0
F3	Flint	1/17	13.3	1/17	100
G1	Grog	1/4	3.1	0/0	0
Total	-	12/128	100.0	1/17	13.2

Table 6: Prehistoric pottery quantification

Flint

F1: Moderate to common coarse to very coarse flint (mainly 2-4mm in size).

F2: Moderate to common medium flint (mainly 1-2mm in size).

F3: Moderate to common fine flint (mainly <1mm in size)

Grog

G1: Moderate to common fine to medium coarse grog (mainly 1-2mm in size)

Neolithic

C.2.1 Nine sherds of Neolithic pottery (104g) were recovered from the excavation, all of which are in coarse flint tempered fabric F1. The pottery derived from five contexts relating to pit/tree throw **45** (one sherd, 2g), tree throw **89** (five sherds, 81g) and ditches **61** (one sherd, 14g), **81** (one sherd, 3g) and **104** (one sherd, 4g).

C.2.2 The pottery from the ditches comprises single abraded, residual Neolithic sherds, including the rolled-rim of an earlier Neolithic vessel from ditch **61**. A single plain abraded sherd was also recovered from pit/tree-throw **45**.

C.2.1 The small group of pottery from tree throw **89** included two refitting rim sherds belonging to an earlier Neolithic vessel. The rim was flatted top, and was a thickened and had a slightly rolled exterior. Such rims are typical of earlier Neolithic Mildenhall and related wares (Healey 1988, 66, fig. 57).

Early Bronze Age

C.2.2 Aside from the largely complete Beaker from pit/tree throw **20** (see Appendix C.1), the only other sherd of Early Bronze Age recovered in the excavation derived from pit/tree throw **85**. This is a small abraded fragment of Beaker decorated with two impressed horizontal lines (3g) in fabric G1.

Late Bronze Age to Early Iron Age

C.2.1 Two sherds of Post Deverel-Rimbury pottery (20g) dating to the Late Bronze Age or Early Iron Age (c. 1100-350 BC) were recovered from ditch **76**. The sherds are in fabrics F2 (3g) and F3 (17g), and include a burnished shoulder from a fineware vessel (fabric F3).

Roman pottery (identification by Katie Anderson)

C.2.2 Three small sherds of abraded Roman pottery (8g) were recovered from the excavations. The pottery derived from the subsoil (one sherds, 4g) and ditches **47** (one

sherd, 1g) and **105** (one base sherd, 3g). These sherds belong to sandy, slightly micaceous wares. None can be closely dated, but all are likely to be of earlier Roman origin c. 50-150 (K. Anderson *pers comm.*).

Saxon pottery (*identification by Richard Mortimer*)

- C.2.3 A single rim sherd of handmade Early Saxon pottery (3g) was recovered from linear disturbance **49**. The rim has a simple upright rounded lip in a quartz fabric.

Post-medieval pottery (*identification by Carole Fletcher*)

- C.2.4 Four sherds of post-medieval pottery (11g) were recovered from the excavations. These derived from linear disturbance **51** (three sherds, 7g) and tree throw **89** (one sherd, 4g). The pottery from **51** dates to the 19th century and includes a fragment of creamware and refined white earthenware. The sherds from tree throw **51** is a glazed red earthenware. This was found alongside a group of earlier Neolithic pottery and is considered intrusive.

Discussion

- C.2.5 The excavations yielded a small assemblage of pottery dating from the earlier Neolithic to the 19th century. The majority of sherds were small and abraded, with many potentially being residual. The only group like to contemporary with the feature they were the five earlier Neolithic sherds from tree-throw **89**.

Recommendations

- C.2.1 No further work is recommended on the pottery.

C.3 Ceramic building material (Site 1)

By Ted Levermore

- C.3.1 Archaeological excavation produced a small assemblage of Ceramic Building Material (CBM); 5 fragments, 112g. The assemblage is comprised of late medieval to post-medieval brick and tile fragments, that are fragmentary and abraded and largely uninformative.

Methodology

- C.3.2 The assemblage was quantified by context, fabric and form and counted and weighed to the nearest whole gram. Fabrics were examined using a x20 hand lens and were described by main inclusions present. Width, length and thickness were recorded where possible. Woodforde (1976) and McComish (2015) form the basis of reference material for identification and dating.
- C.3.3 The quantified data are presented on an Excel spreadsheet held with the site archive.

Assemblage and Discussion

- C.3.4 The fragments recovered were collected from four contexts. The catalogue is summarised in Table 7. This assemblage is severely abraded and as such is largely uninformative. The presence of late medieval to post-medieval fragments of CBM is usually related to discard of the material into the modern agricultural landscape. It therefore represents little more than background noise.

Area	Context	Cut	Feature	Object	Form	Date	Count	Weight
1	48	47	Ditch	Brick	Fragment	Late Med - Post-Med	1	70
1	52	51	Modern Disturbance	Tile	Fragment	Post-Med	1	8
1	62	61	Ditch	Tile	Fragment	Post-Med	1	4
1	90	89	Three Throw/pit	Tile	Fragment	Post-Med	1	23
1	90	89	Three Throw/pit	Tile	Fragment	Post-Med	1	7
Total							15	112

Table 7: Summary ceramic building material catalogue (Site 1)

C.3.5 The assemblage has been fully recorded and described.

C.3.6 There are no fragments that require illustration or photography. All fragments should be considered for de-selection.

C.4 Flint (Site 1)

By Lawrence Billington

Introduction and quantification

C.4.1 A small assemblage of eleven struck flints was recovered during the fieldwork. The assemblage is quantified by broad type in Table 8. The flint was thinly distributed, coming from eight separate contexts, with a maximum of three pieces coming from fill 90 of tree throw 89.

Context	Cut	Context type	Flake	Blade	Blade like flake	Edge modified flake	Flake from polished implement	Totals
46	45	Tree throw/pit		1				1
48	47	Ditch	1					1
50	49	Mod' disturbance			1			1
90	89	Tree throw/pit	1	1			1	3
102	101	Tree throw/pit			1			1
103		Subsoil				1		1
107	106	Ditch	2					2
99999		Unstratified	1					1
Totals			5	2	2	1	1	11

Table 8: Quantification of the flint assemblage (Site 1)

Raw materials and condition

C.4.2 The entire assemblage is made up of fine grained flint. The majority of pieces are made on a translucent/semi-translucent fine grained flint. There are few surviving cortical/natural surfaces but those present are characteristic of material collected from secondary deposits such as glacio-fluvial gravels or tills. The only distinctive piece in terms of raw material is a flake struck from a polished flint axe from tree throw fill 90 (see below).

C.4.3 The flint is in generally good condition with some minor edge damage and is not patinated/recorticated.

Characterisation

- C.4.4 The assemblage includes a relatively high proportion of blade based material, characteristic of Mesolithic/early Neolithic technologies. Tree throw/pits **45** and **101** each produced a single tertiary blade or blade like flake whilst single blade like flake was also recovered from pit/treethrow **49**.
- C.4.5 The three flints recovered from tree throw **89** include a single blade (with traces of possible utilisation along one lateral edge), alongside a broken tertiary flake and a flake struck from a polished implement, almost certainly a polished axe head. This flake is made on a distinctive opaque mottled grey flint of a kind which appears to have been specifically selected for axe head manufacture during the Neolithic over large parts of Southern Britain (see Bayliss et al 2011, 783-8), and which, whilst often referred to as 'Lincolnshire flint', can be sourced from glacial till in Norfolk (Healy 1988, 33). The polished axe flake, together with the blade based character of the other pieces, suggest that the material from this feature may represent a coherent, potentially single period, Early Neolithic assemblage.
- C.4.6 The remainder of the assemblage is made up of flake based material. These are dominated by relatively broad or irregular hard hammer struck flakes – most of which retain some cortex. The most notable piece is a relatively large tertiary flake from the subsoil (103), with a naturally pointed distal end and minimal edge retouch along parts of its lateral edges. None of the flake based material is strongly diagnostic but the expedient approach to reduction that characterises most of this material is typical of assemblages from the Late Neolithic into later prehistory.

Discussion

- C.4.7 The flint assemblage can only be described as small and, as such, there is limited potential for further work and no further analysis is required. The assemblage provides clear evidence for prehistoric activity on the site and the relatively high proportion of 'early' blade based material from probable natural features is particularly notable, as is the polished axe flake – an unusual find for an assemblage of this size.

C.5 Other finds

By Matt Brudenell with Carole Fletcher

- C.5.1 A fragment of green glass bottle neck (6g) was recovered from context 48. The glass is likely to be Victorian
- C.5.2 A single fragment of muscle shell (6g) was recovered from context 62,

Recommendations

- C.5.3 Given the low significance of the of these find is not recommended that they are retained as part of the project archive.

APPENDIX D. ENVIRONMENTAL REPORTS

D.1 Environmental samples (Site 1)

By Rachel Fosberry

Introduction

Nine bulk samples were taken from features within the evaluated area at Land off New Road, Belton Stepshort to Great Yarmouth Pipeline, Norfolk in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations. Samples were taken from features such as pits and ditches that are thought to date from the prehistoric period through to the post-medieval period.

Methodology

D.1.1 The total volume (up to 20L) of each of the samples was processed by tank flotation using modified Siraff-type equipment for the recovery of preserved plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve.

D.1.2 The dried flots were scanned using a binocular microscope at magnifications up to x 60 and an abbreviated list of the recorded remains are presented in Table 1.

Results

D.1.3 Preservation of plant remains is restricted to charcoal only.

Sample	Context	Cut	Feature type	% context sampled	Volume processed (l)	Flot Volume (ml)	Estimated charcoal volume (ml)	Fired clay
1	13	14	Ditch	<20	20	4000	400	#
2	19	20	Pit	<20	20	20	2	0
3	62	61	Ditch	<10	33	20	5	0
4	64	63	Pit/tree throw	100	19	10	<1	0
5	70	69	Ditch	<10	16	30	<1	0
6	77	76	Ditch	<10	20	30	<1	0
7	92	91	Pit/tree throw	50	17	40	35	0
8	88	87	Pit	50	7	15	15	0
9	90	89	Tree throw?	<10	17	30	2	0

Table 9: Environmental samples (Site 1)

Discussion

D.1.4 The lack of any preserved plant remains such as charred cereals suggests that there has not been any significant period of human occupation at this site. Several of the samples had the potential for charcoal identification which has been undertaken to validate the charcoal for subsequent radiocarbon dating (Appendix D.2).

D.1.5 There is limited archaeobotanical potential for this site, however, if further excavation is planned for this area, it is recommended that environmental sampling is carried out in accordance with Historic England guidelines (2011).

D.2 Charcoal

By Denise Druce

Quantification and methodology

- D.2.1 Three bulk sample taken during the excavations at Belton Stepshort were subject to charcoal assessment to identify suitable material for radiocarbon dating, and to assess their potential for providing information on fuel use. The samples were processed using standard procedures (CPR Section?), and a representative amount of >2mm charcoal fragments were fractured to reveal transverse section, which were scanned using a binocular microscope at up to x40 magnification. in order to gauge species/group diversity. The presence of any small round wood, sapwood, and short-lived wood species was noted, for the purpose of providing suitable material for radiocarbon dating. Characteristics, such as possession of tyloses in hardwoods, any insect damage, or radial splitting were also noted as an aid to assessing wood maturity, and condition prior to charring. The results were recorded on an assessment pro-forma, which will be kept with the site archive.
- D.2.2 Charcoal fragments requiring full identification were fractured to reveal both radial and tangential sections, which were examined under a Meiji incident-light microscope at up to x400 magnification. Identifications were made with reference to Hather (2000), and modern reference material.

Charcoal assessment

- D.2.3 The results of the assessment are presented in Table 10. Two of the samples produced relatively few (<25) >2mm charcoal fragments, comprising primarily alder/hazel (*Alnus glutinosa/Corylus avellana*) and oak (*Quercus sp*) in pit **20**, and a mixed assemblage of oak, gorse-type (*Leguminosae*, which includes gorse, broom, petty whin, and dyer's greenward) and heath/heather (*Ericaceae*) in ditch **77**. Ditch **14** contained abundant charcoal fragments, which appeared to be dominated by oak (*Quercus sp*) charcoal, including probable oak sapwood, with a much smaller component of probable lime (*Tilia sp*). Material from all three of the samples was extracted and submitted for radiocarbon dating (Table 10; Appendix D.3).
- D.2.4

Sample no	Context no	Feature no	Feature type	Charred plant remains	>2mm Charcoal	Charcoal submitted for c14 dating
1	13	14	Ditch	-	(4), dominated by <i>Quercus sp</i> , with frequent cf <i>Tilia sp</i>	<i>Quercus sp</i> cf sapwood
2	19	20	Pit	-	(2), <i>Alnus glutinosa/Corylus avellana</i> and <i>Quercus sp</i>	<i>Corylus avellana</i>
6	77	77	Ditch	<i>Rumex acetosella</i> seed (1), <i>Poaceae</i> culm fragments (1)	(2), mixed assemblage with <i>Quercus sp</i> , <i>Ericaceae</i> and <i>Leguminosae</i>	<i>Leguminosae</i>
Notes: (1) =< five items; (2) = 6-25 items, (3) = 26-100 items, (4) =>100 items						

Table 10: Results of the charcoal assessment

Discussion

D.2.5 Although any interpretations based on such a limited dataset (i.e. number of samples, and number of fragments from two of the fills) have to remain tentative, some information has been obtained. Oak and alder/hazel are commonly found in fuel assemblages throughout all periods and regions, so their identification is not remarkable. The presence of heath/heather and gorse-type charcoal in ditch 77, however, may be considered more unusual; the development and utilisation of heathland for fuel and other purposes, perhaps being related to more regional changes in vegetation and land use. Gorse or 'furze' is considered a good source of fuel (Rackham 2003), and is reported to be the traditional wood used for firing ovens in the past (Gale 2001, 236). With regards ditch 14, prehistoric records of lime charcoal are very much restricted to areas of the 'Lime Province', which covered much of lowland England (Rackham 1996, 29). Lime woodland in Britain underwent a number of declines, the most marked taking place during the late Neolithic and middle Bronze Age, especially in floodplain/lowland coastal areas (Grant et al 2011). The reasons for the lime decline are likely to be numerous, and include changes in climate and soils, and anthropogenic activity (ibid).

D.3 Radiocarbon dating

D.3.1 Samples from three features were submitted to SUERC for radiocarbon dating. All of the samples were charcoal (short life samples, identified to species) recovered from environmental samples (see Appendix D.2). All of the samples produced dates and the results are shown in Table 11.

Laboratory number	Radiocarbon age (BP)	$\delta^{13}\text{C}$ (‰)	Calibrated date range (cal BC) (95.4% confidence)	Material	Sample	Context	Feature
SUERC-75152	3706±30	-26.7	2200 to 2020 (95%) or 1990-1980 (0.5%)	Charcoal, <i>Quercus</i> sp, cf sapwood	1	13	?Ditch 14
SUERC-75153	3761±31	-27.3	2290 to 2120 (83.5%) or 2090 to 2040 (11.9%)	Charcoal, <i>Corylus avellana</i>	2	19	Pit/tree throw 20 containing complete Beaker vessel
SUERC-75154	2978±30	-25.4	1370 to 1360 (0.8%) or 1300 to 1110 (94.2%) or 1100 to 1090 (0.4%)	Charcoal, <i>Leguminosae</i>	6	77	Ditch 76

Table 11: Radiocarbon dates

APPENDIX E. HISTORIC MAPS CONSULTED

1838 Belton Tithe Map

<http://www.historic-maps.norfolk.gov.uk/mapexplorer/> [accessed 10/07/2017]

1882 Ordnance Survey Six Inch Map

Suffolk II.SW (includes: Belton; Bradwell; Burgh Castle; Fritton.)

<http://maps.nls.uk/view/101576237> [accessed 10/07/2017]

1883 Ordnance Survey Six Inch Map

Suffolk II.SE (includes: Corton; Gorleston; Great Yarmouth; Hopton.)

<http://maps.nls.uk/view/101576240> [accessed 18/07/2017]

APPENDIX F. BIBLIOGRAPHY

Adams, M., Peachey, A. & Davies, C. 2011. East Coast Hospice, Sidegate Road, Hopton-on-Sea, Norfolk. An Archaeological Evaluation . Archaeological Solutions Ltd Report 3923

Allen, C., 2008. 'Pottery' in Luke, M. *Life in the Loop: Investigation of a Prehistoric and Romano-British Landscape at Biddenham Loop, Bedfordshire*. East Anglian Archaeology 125

Ashwin, T. and Bates, S. 2000. *Excavations on the Norwich Southern Bypass, 1989-91. Part I: Excavations at Bixley, Trowse, Cringleford and Little Melton*. East Anglian Archaeology 91.

Bamford, H.M., 1982. *Beaker Domestic Sites in the Fen Edge and East Anglia*, East Anglian Archaeology 16.

Bayliss, A., Healy, F., Whittle, A. And Cooney, G. 2012. Neolithic narratives: British and Irish enclosures in their landscapes. In Whittle, A., Healy, F. and Bayliss, A. *Gathering Time: Dating the Early Neolithic Enclosures of Southern Britain and Ireland*. Volume II. Oxford: Oxbow Books, 682-847

Bishop, B. and Proctor, J. 2011. *Settlement, Ceremony and Industry on Mousehold Heath. Excavations at Laurel Farm (Phase II), Broadland Business Park, Thorpe St Andrew, Norfolk*. London: Pre-Construct Archaeology Ltd.

British Geological Survey 2017 *Geology of Britain Viewer*

<http://mapapps.bgs.ac.uk/geologyofbritain/home.html> [accessed] 27/03/2017

Brown, Glazebrook 2000. *Research and Archaeology: A Framework for the Eastern counties: 2. Research Agenda and Strategy* East Anglian Archaeology Occasional Papers 8

Brudenell, M and Blackburn, K 2017. Belton Stepshort Rising Main Scheme Written Scheme of Investigation Archaeological Strip, Map and Sample Excavation and Monitoring and Recording Project Number 20285

Evans, C., Pollard, J. and Knight, M., 1999. Life in the Woods: Tree-throws, 'Settlement' and Forest Cognition. *Oxford Journal of Archaeology*, 18(3), pp.241-254.

Garwood, P. 2011. 'Making the Dead'. In Morigi, T., Schreve, D., White, M., Hey, G., Garwood, P., Bradley, P. and Robinson M. *The Thames through time: an archaeology of the gravel terraces of the Upper and Middle Thames, early prehistory to 1500 BC*. Thames Valley Landscapes 32, Oxford, 383-432.

Gibson, A.M., 1982. *Beaker Domestic Sites, a study of the Domestic Pottery of the Late Third and Early Second Millennium BC in the British Isles*, British Archaeological Report 107 (Oxford).

Gilmour, N. 2014. *Woodgate Farm, Aylsham, Excavation Report*, OA East Report 1566

Gilmour, N., Horlock, S., Mortimer, R. and Tremlett, S., 2014, December. Middle Bronze Age

- Enclosures in the Norfolk Broads: a Case Study at Ormesby St Michael, England. In *Proceedings of the Prehistoric Society* 80, pp. 141-157
- Glazebrook 1997. *Research and Archaeology: A Framework for the Eastern counties: 1. Resource Assessment*, East Anglian Archaeology Occasional Papers 3
- Healy, F. 1988. *The Anglo-Saxon Cemetery at Spong Hill, North Elmham. Part VI: Occupation during the Seventh to Second Millennia BC*. East Anglian Archaeology 39.
- Healy, F., 2012. 'Chronology, Corpses Ceramics, Copper and Lithics' in Allen, M.J., Gardiner, J. and Sheridan, A., *Is there a British Chalcolithic? People, place and polity in the late 3rd millennium*. Prehistoric Society Research Paper 4, 144-164
- Lamdin-Whymark, H., 2008. *The residue of ritualised action: Neolithic deposition practices in the Middle Thames Valley*. British Archaeological Reports (British Series) 466.
- Medleycott 2011. *Research and Archaeology Revisited: A Revised Framework for the East of England*, East Anglian Archaeology Occasional Papers 24
- Needham, S., 2005. 'Transforming Beaker Culture in North-West Europe: processes of fusion and fission', *Proceedings of the Prehistoric Society* 71, 171-217
- PCRG 2010. *The Study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication*. Oxford: Prehistoric Ceramics Research Group occasional Papers 1 and 2 (third edition)
- Pendleton, C. and Gibson, A. forthcoming 'An excavated Beaker assemblage, including a bronze flat axe, from Worlingham, Suffolk'. *Proceedings of the Prehistoric Society*
- Wainwright, G.J., 1973. 'The excavation of prehistoric and Romano British settlements at Eaton Heath, Norwich', *Archaeological Journal* 130, 1-43
- Ward, G.K. and Wilson, S.R., 1978. Procedures for comparing and combining radiocarbon age determinations: a critique. *Archaeometry*, 20(1), pp.19-31.
- Woodward, A., 2000. 'The Prehistoric Pottery' in Hughes, G., *The Lockington Gold Hoard; An Early Bronze Age Barrow Cemetery at Lockington, Leicestershire*. Oxbow Books, 48-61
- Wymer, J.J 1996 The Excavation of a Round Barrow at Bawsey, near King's Lynn, 1984. In Wymer, J.J. (ed.) *Barrow Excavations in Norfolk, 1984-88*. East Anglian Archaeology 77, 1-27.
- Yates, D.T. 2007. *Land Power and Prestige: Bronze Age Field Systems in Southern England*. Oxford: Oxbow Books.

APPENDIX G. OASIS REPORT FORM

Project Details

OASIS Number	oxfordar3-276119		
Project Name	Belton Stepsort Rising Main		
Project Dates (fieldwork) Start	06-03-2017	Finish	26-05-2017
Previous Work (by OA East)	No	Future Work	Unknown

Project Reference Codes

Site Code	XNFBSP17	Planning App. No.	N/A
HER No.	ENF 141721 - 141724	Related HER/OASIS No.	

Type of Project/Techniques Used

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

Please select all techniques used:

<input type="checkbox"/> Field Observation (periodic visits)	<input checked="" type="checkbox"/> Part Excavation	<input type="checkbox"/> Salvage Record
<input type="checkbox"/> Full Excavation (100%)	<input type="checkbox"/> Part Survey	<input type="checkbox"/> Systematic Field Walking
<input type="checkbox"/> Full Survey	<input type="checkbox"/> Recorded Observation	<input type="checkbox"/> Systematic Metal Detector Survey
<input type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Remote Operated Vehicle Survey	<input type="checkbox"/> Test Pit Survey
<input type="checkbox"/> Open-Area Excavation	<input type="checkbox"/> Salvage Excavation	<input checked="" type="checkbox"/> 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".

Monument	Period	Object	Period
Field systems	Modern 1901 to Present	Pottery beaker	Bronze Age -2.5k to -700
Field systems	Late Prehistoric -4k to 43		Select period...
Pit	Late Prehistoric -4k to 43		Select period...

Project Location

County	Norfolk	Site Address (including postcode if possible)
District	Great Yarmouth	
Parish	Belton, Bradwell, Gorlest	
HER	Norfolk	
Study Area	3.821km	National Grid Reference TG 4898 0320

Project Originators

Organisation	OA EAST
Project Brief Originator	James Albone, NCC Historic Environment Service
Project Design Originator	Matt Brudenell and Kathryn Blackbourn, OA East
Project Manager	Matt Brudenell, OA East
Supervisor	Stuart Ladd, OA East

Project Archives

Physical Archive	Digital Archive	Paper Archive
NMAS	OA East	NMAS
TBA	XNFBSP17	TBA

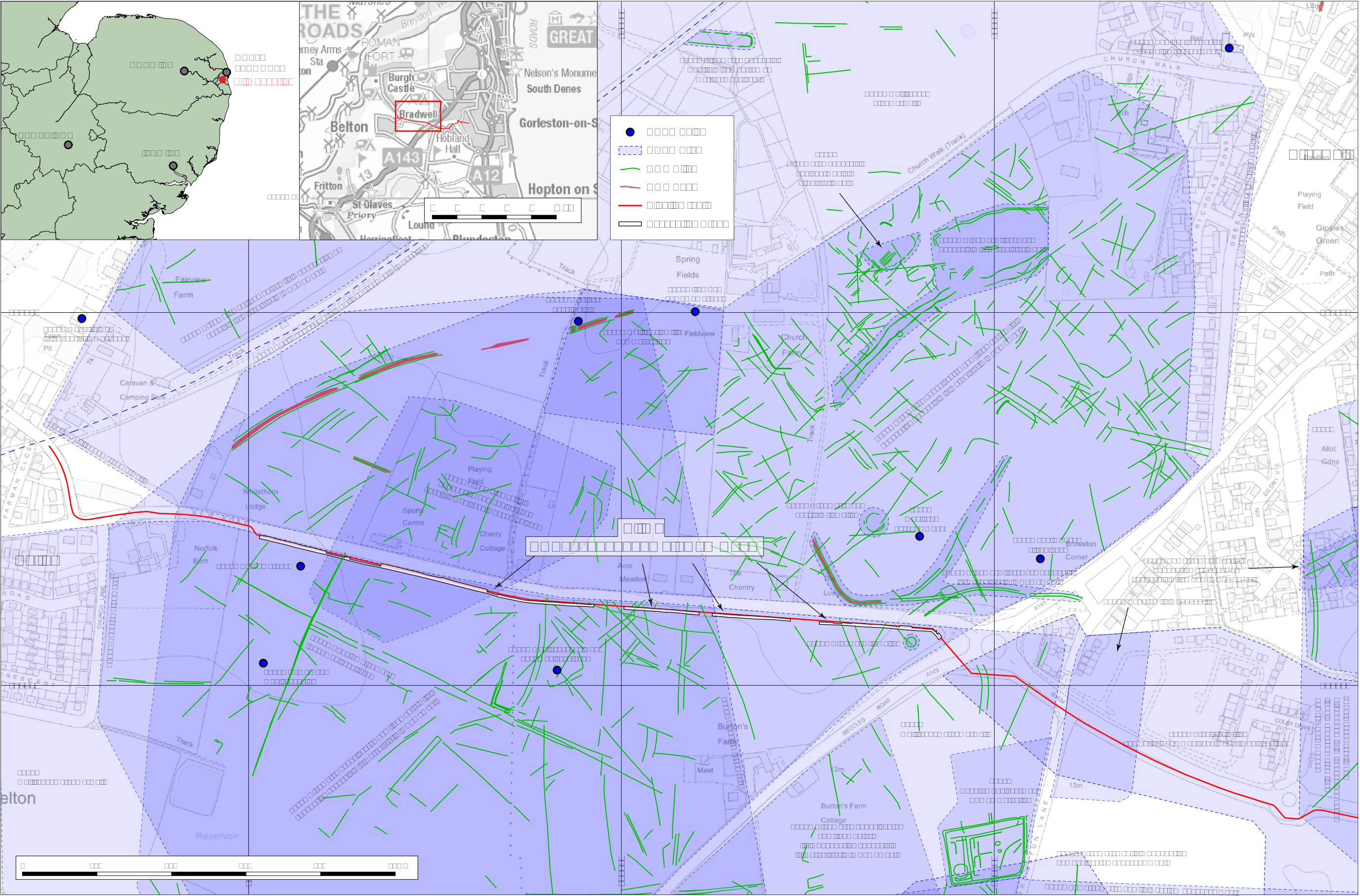
Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ceramics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Glass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Human Bones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leather	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stratigraphic		<input type="checkbox"/>	<input type="checkbox"/>
Survey		<input type="checkbox"/>	<input type="checkbox"/>
Textiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked Bone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked Stone/Lithic	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Digital Media	Paper Media
<input checked="" type="checkbox"/> Database	<input type="checkbox"/> Aerial Photos
<input type="checkbox"/> GIS	<input checked="" type="checkbox"/> Context Sheet
<input type="checkbox"/> Geophysics	<input type="checkbox"/> Correspondence
<input checked="" type="checkbox"/> Images	<input type="checkbox"/> Diary
<input checked="" type="checkbox"/> Illustrations	<input type="checkbox"/> Drawing
<input type="checkbox"/> Moving Image	<input type="checkbox"/> Manuscript
<input checked="" type="checkbox"/> Spreadsheets	<input type="checkbox"/> Map
<input checked="" type="checkbox"/> Survey	<input type="checkbox"/> Matrices
<input checked="" type="checkbox"/> Text	<input type="checkbox"/> Microfilm
<input type="checkbox"/> Virtual Reality	<input type="checkbox"/> Misc.
	<input type="checkbox"/> Research/Notes
	<input type="checkbox"/> Photos
	<input type="checkbox"/> Plans
	<input checked="" type="checkbox"/> Report
	<input checked="" type="checkbox"/> Sections
	<input type="checkbox"/> Survey

Notes:

Accession number to be acquired.

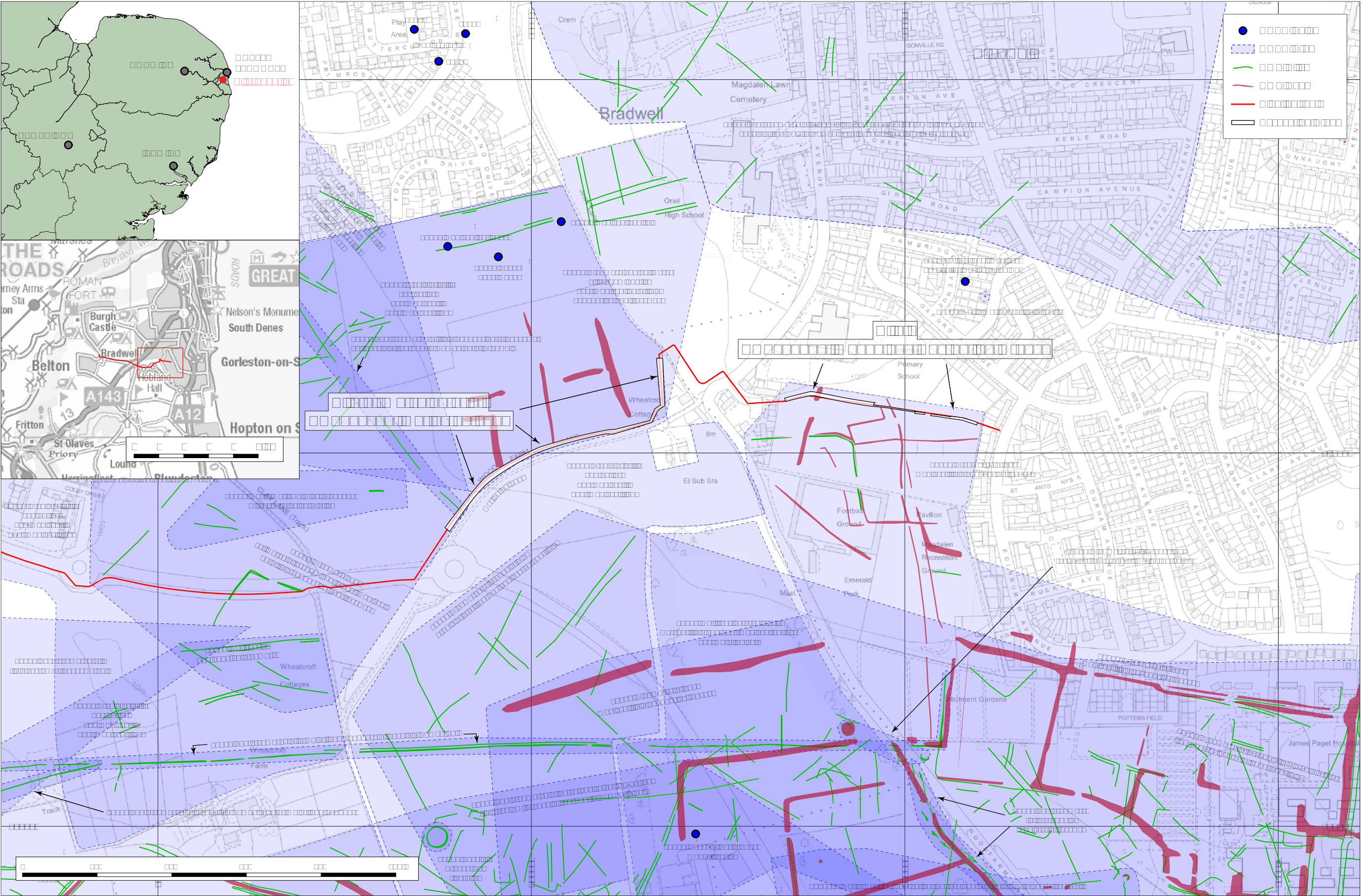


Contains Ordnance Survey data © Crown copyright and database right 2017. All rights reserved. License number AL 10001998.

Archaeological map of the Bradwell area, showing various features, roads, and landmarks. The map includes an inset map of the region in the top left corner, showing the location of Bradwell relative to other towns like Belton, Fritton, and Hopton on the Heath. The main map shows a large area with a blue background, overlaid with various colored lines and symbols. A legend in the top right corner explains the symbols used on the map.

Archaeological map of the Bradwell area, showing various features, roads, and landmarks. The map includes an inset map of the region in the top left corner, showing the location of Bradwell relative to other towns like Belton, Fritton, and Hopton on the Heath. The main map shows a large area with a blue background, overlaid with various colored lines and symbols. A legend in the top right corner explains the symbols used on the map.

Archaeological map of the Bradwell area, showing various features, roads, and landmarks. The map includes an inset map of the region in the top left corner, showing the location of Bradwell relative to other towns like Belton, Fritton, and Hopton on the Heath. The main map shows a large area with a blue background, overlaid with various colored lines and symbols. A legend in the top right corner explains the symbols used on the map.

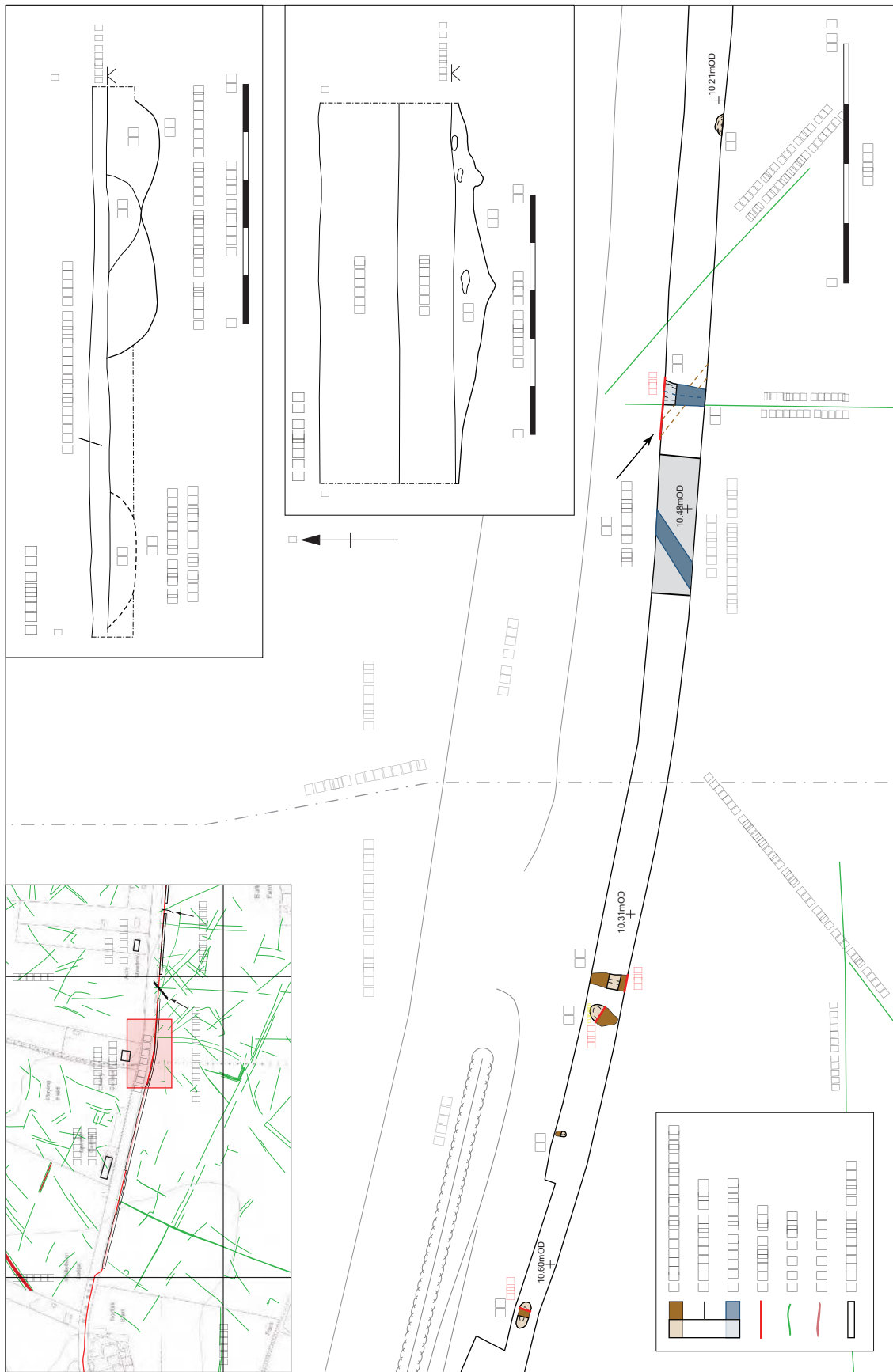


Contains Ordnance Survey data © Crown copyright and database right 2017. All rights reserved. License number AL 10001998.

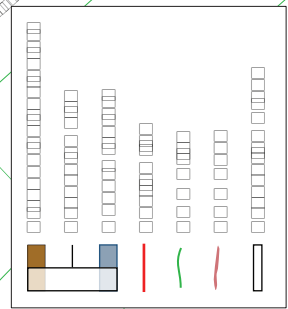
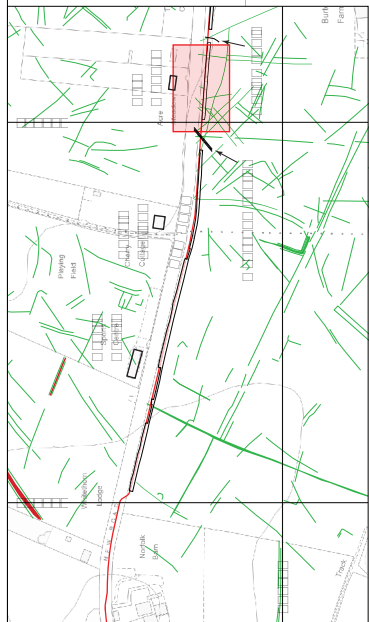
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

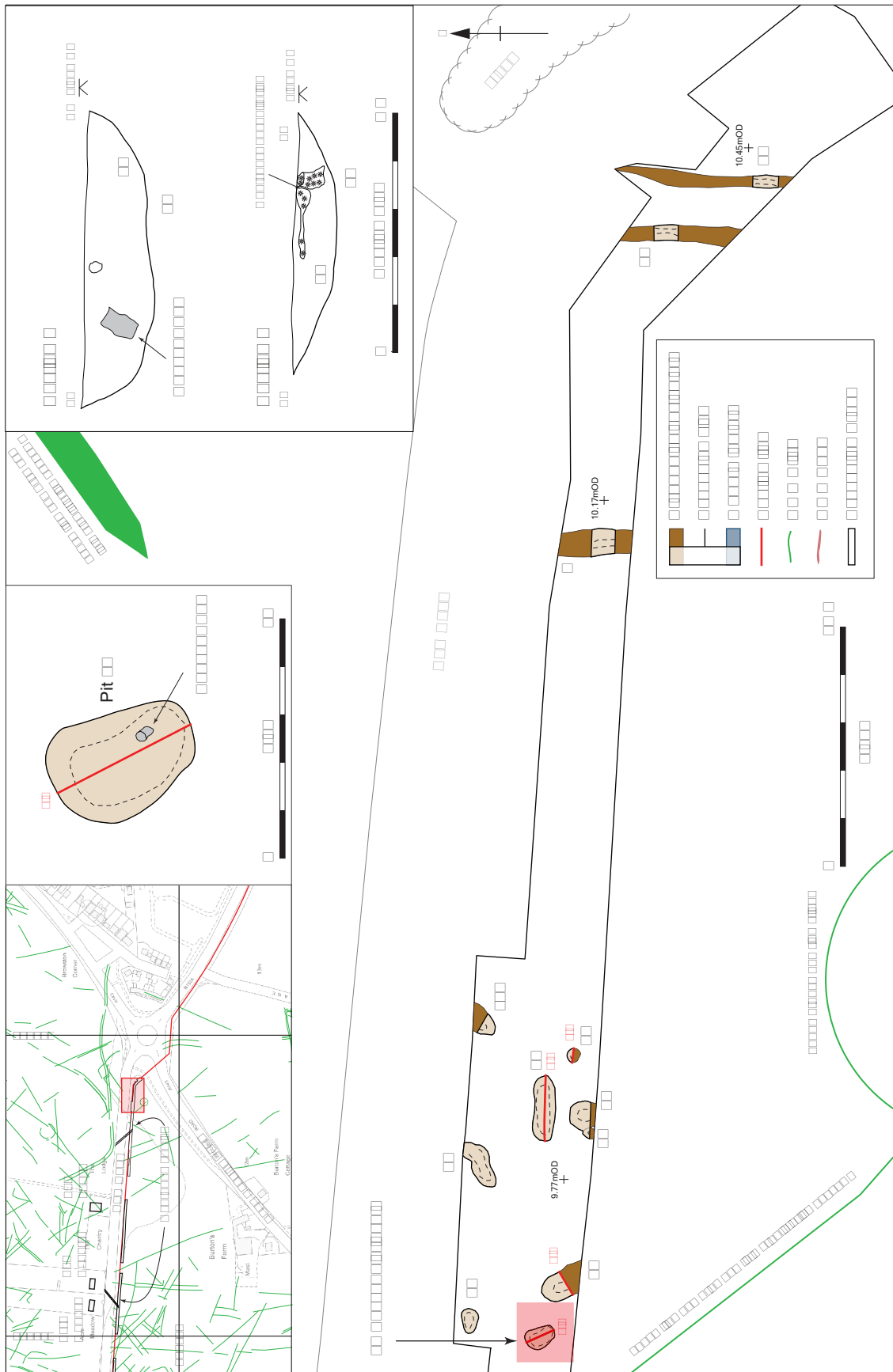
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

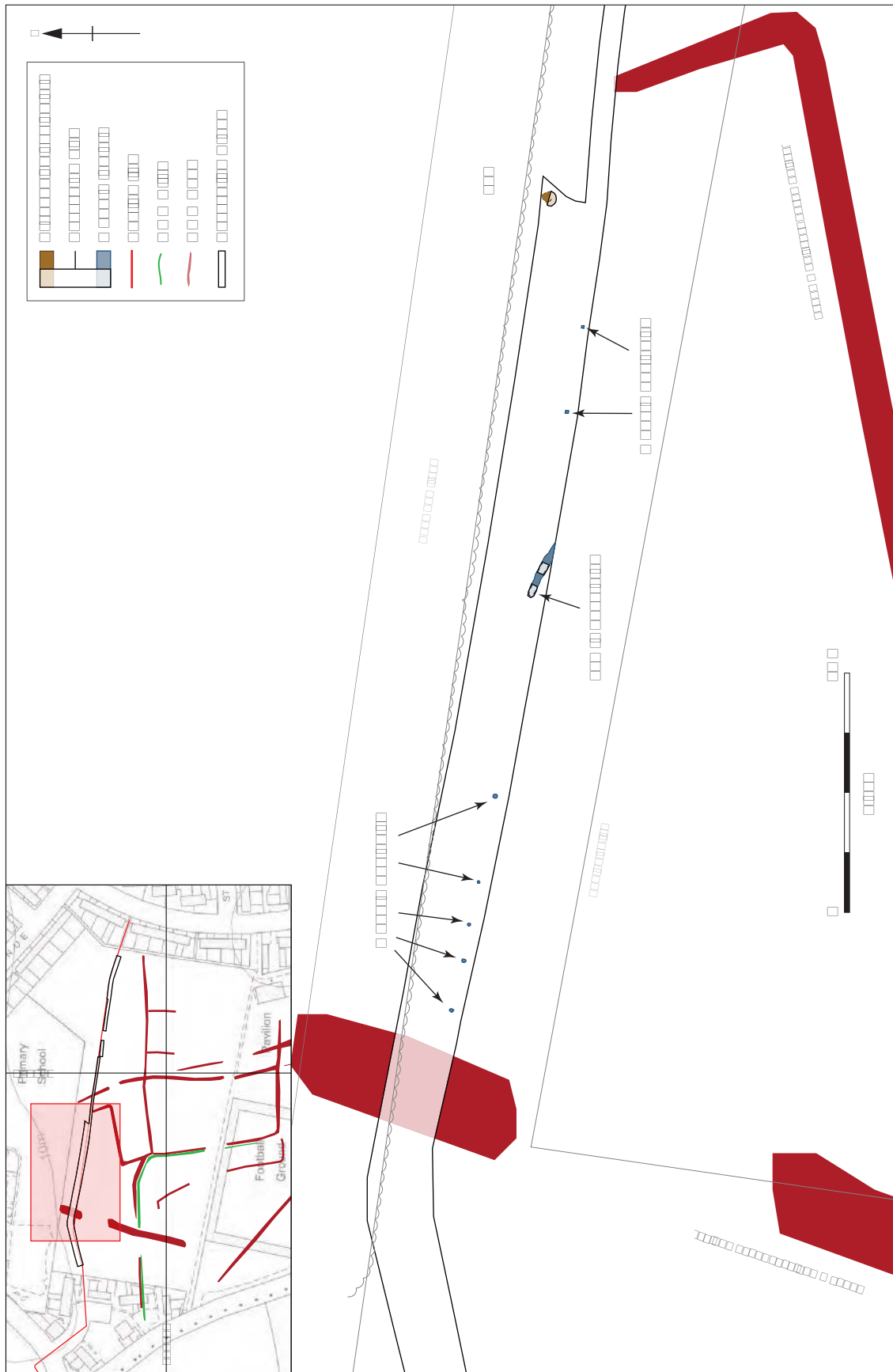




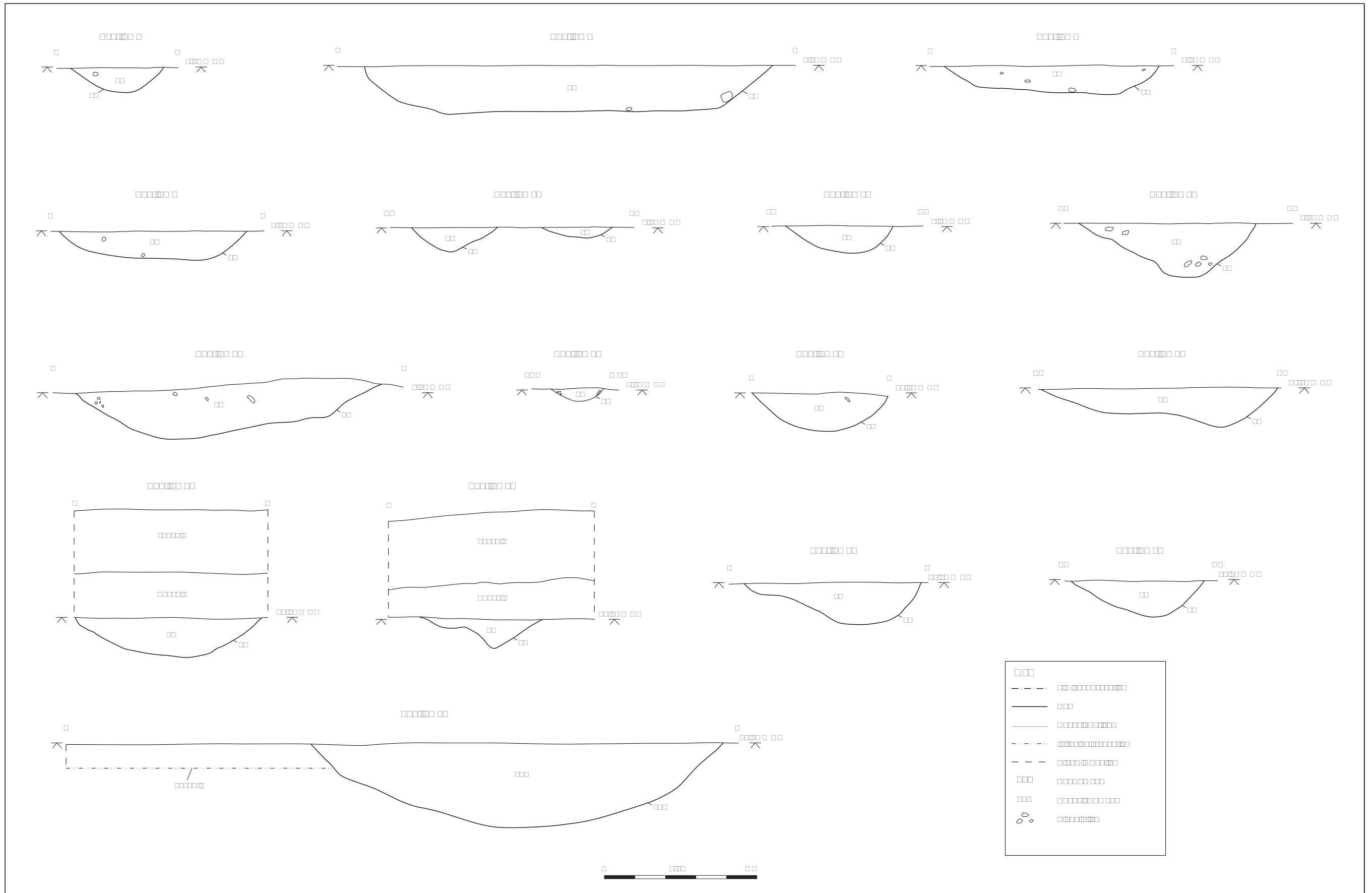








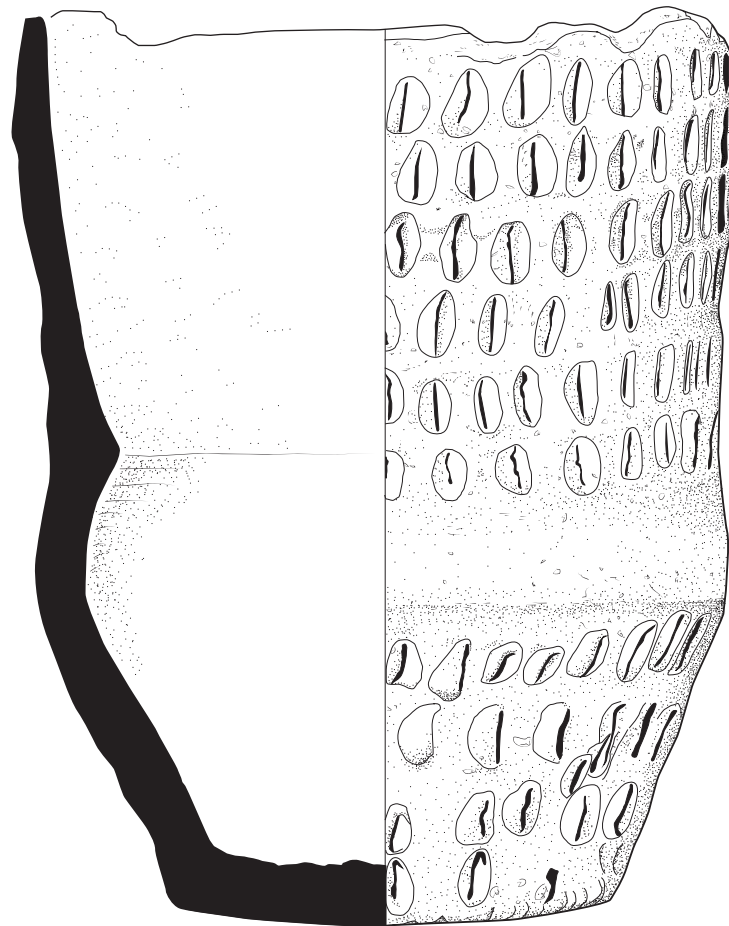




Legend: Small squares represent pits; dashed lines represent walls; solid lines represent foundations; various line styles represent other features.

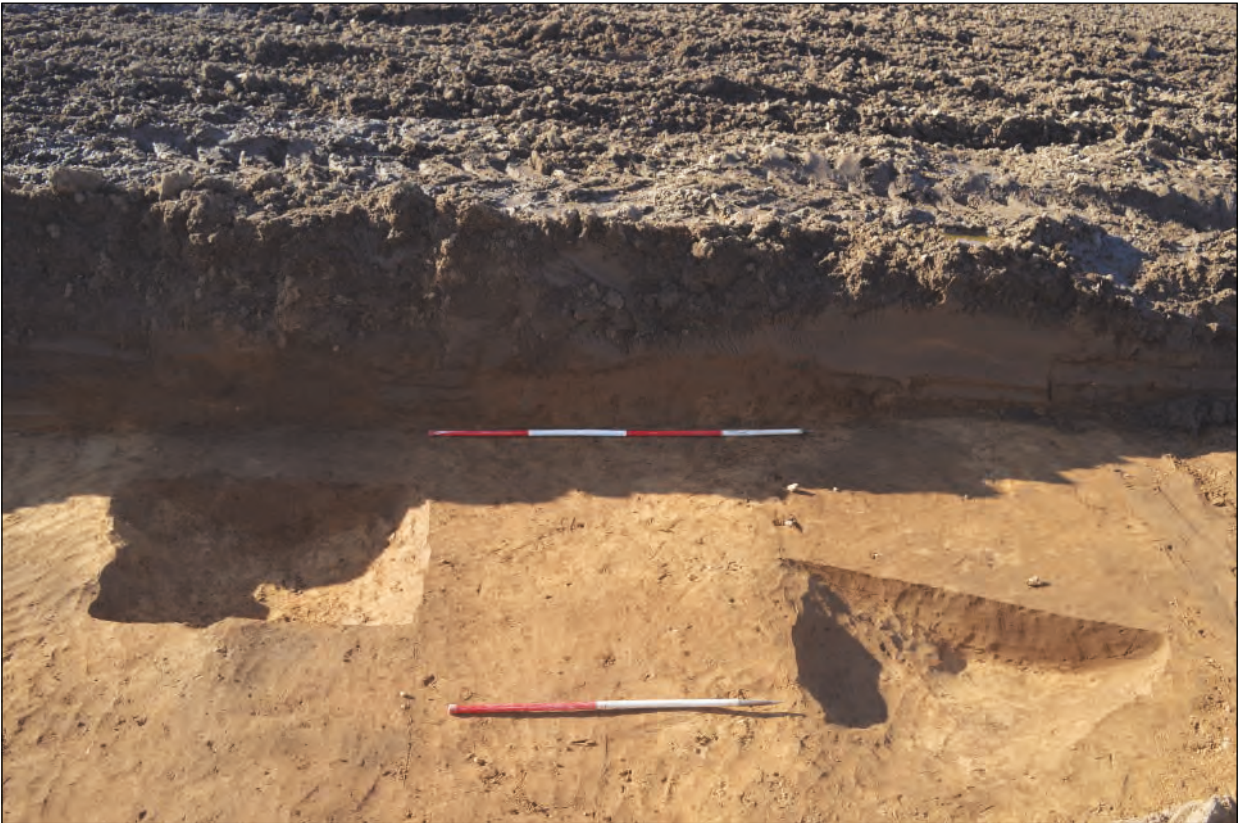
Scale: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 meters.

North arrow pointing upwards.





1. 土壤剖面圖 (Soil Profile Diagram) 顯示了土壤的垂直分層。圖中可見深色的表層土壤 (Topsoil) 和較淺色的底層土壤 (Subsoil)。測量尺用於標示深度。



2. 土壤剖面圖 (Soil Profile Diagram) 顯示了土壤的垂直分層。圖中可見深色的表層土壤 (Topsoil) 和較淺色的底層土壤 (Subsoil)。測量尺用於標示深度。

[illegible]



000000 000000 0000000000000000 00000000



000000 000000 0000000000000000 000000 0000000000 000000000000 00000000

□ □ □ □ □ □ □ □ □ □

A photograph showing a long, straight, light-colored sandy or silty path or road cutting through a green landscape. The path is flanked by deep, dark brown earthen banks. In the background, there are trees, a fence, and a building under a cloudy sky.

[illegible]



圖 1-1-1 考古發掘之長方形溝渠，溝渠內發現有陶器碎片，經初步判斷為漢代遺址。



圖 1-1-2 考古發掘之長方形溝渠，溝渠內發現有陶器碎片，經初步判斷為漢代遺址。



Figure 1: A photograph of an archaeological excavation site showing a cross-section of soil layers. A red and white measuring rod is placed horizontally across the middle of the excavation for scale. The top layer is dark brown soil, followed by a lighter, more textured layer, and then a darker, more compact layer at the bottom. The excavation is surrounded by green grass and some rocks.



Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: <http://oxfordarchaeology.com>

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: [oanorth@oxfordarchaeology.com](mailto: oanorth@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: [oaeast@oxfordarchaeology.com](mailto: oaeast@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>



Director: Gill Hey, BA PhD FSA MCIFA
*Oxford Archaeology Ltd is a
Private Limited Company, N^o: 1618597
and a Registered Charity, N^o: 285627*